

Revitalizing Auto Communities Environmental Response
Trust (RACER)

2022 Joslyn South Parcel Groundwater and Soil Investigation Summary Report

Pontiac North Campus

May 12, 2023

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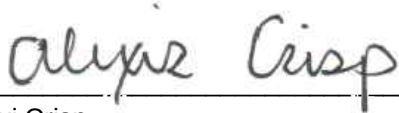
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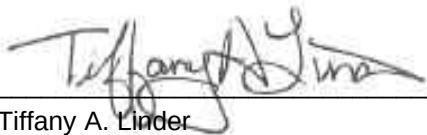
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1 Introduction

Arcadis of Michigan, LLC (Arcadis) prepared this report on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER). This report describes routine groundwater monitoring conducted during the 2022 calendar year, implementation of a soil investigation to better understand subsurface geology and hydrogeology, and recommendations based on these investigation activities. These activities were conducted by Arcadis at a vacant 0.455-acre parcel (Parcel ID 14-21-205-001) in the vicinity of the RACER Pontiac North Site in Pontiac, Michigan. The parcel (herein referred to as the Joslyn South Parcel or “Site”) is bounded to the west by Joslyn Avenue, north by Westbrook Street, south by Lenox Avenue, and east by residential properties. The Site is owned by RACER Properties, LLC, a wholly owned subsidiary of RACER. The location of the Site and Site layout is shown in **Figures 1A and 1B**.

RACER’s objective is to obtain no further action status for the Site based on completing necessary response activities, which are anticipated to include recording deed restrictions such as restricting use to non-residential, prohibiting installation of wells and use of groundwater, requiring contaminated soil management, and requiring soil vapor management.

1.1 Site Background

A historical review of the Joslyn property is provided as the *Joslyn Avenue Parcels Historical Summary Memorandum*, dated January 19, 2021 (Arcadis 2021a), which was provided to the U.S. Environmental Protection Agency (USEPA). The memorandum was later provided to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on September 1, 2021, for reference. The Joslyn South parcel operated as a gasoline station from at least 1952 through at least 1967. Aerial photographs, from 1952 through 1967, show a building in the east-central portion of the Joslyn South Parcel with paved surfaces on the west side and access from Lennox Ave. and Joslyn Ave (**Appendix A**). The approximate location of historical Site structures over time are summarized in **Figure 1B**. From 1972 through 2016, aerial photographs depict the parcel as vacant/landscaped lawn (**Appendix A**). The Site is currently vacant/undeveloped property.

The Joslyn South parcel was identified in the 2001 ENCORE Current Conditions Report (CCR), as area of interest (AOI) P-8, which contained a former underground storage tank (UST). The vacant lot was considered an AOI because a release from a previously unknown UST was discovered in 1996. There are no records indicating that former GMC manufacturing operational activities occurred on this parcel. The tank number, capacity, and date of installation are unknown. An initial investigation report was submitted by Parsons in 1997 following a subsurface investigation conducted in October 1996. In October 1998, Conestoga-Rovers and Associates (CRA) submitted a “Leaking Underground Storage Tank Closure Report” to MDEQ (currently EGLE). In 1999, the Site was closed per Act 451 Section 21315 (administrative closure as MDEQ did not review within the review timeframe), and no further action was recommended in the CCR. However, as stated in a March 3, 2021 letter from USEPA it was determined that RACER Trust was going to continue environmental investigation activities at the Site even though USEPA determined that the Site was not part of the former GMC Pontiac North Campus facility and would not appear to be subject to RCRA.

2 Investigation Activities

On behalf of RACER, Arcadis previously submitted an investigation report titled “Joslyn South Parcel Investigation Report” on July 15th, 2022. The report summarized field activities, analytical results, and conclusions from the Site investigation activities and made recommendations for further investigation. The recommendations included the following scope of work:

- Complete delineation of groundwater impacts by advancing three soil borings to the water table or first saturated zone to the east of the Site. At each location one grab groundwater sample was to be collected for laboratory analysis of volatile organic compounds via USEPA Method 8260. Based on the data, a monitoring well was proposed to be installed at each location.

Due to the presence of overhead utilities and discovery that the adjacent easement was part of the residential property east of the Site, the three additional delineation soil boring locations were not completed as planned. Therefore, Arcadis continued monitoring of the existing monitoring wells for data trend analysis. Additionally, soil borings were completed on-site within or near the suspected source area to further characterize the depth and nature of soil impacts.

Four consecutive quarters of groundwater monitoring was also conducted in 2022 for groundwater data trend evaluation. Monitoring activities started with gauging, followed by sampling for volatile organic compounds (VOCs). First quarter monitoring began on December 28th, 2021 and extended to January 6th, 2022 due to the holidays, second quarter monitoring was completed from June 20th – 23rd, third quarter monitoring was completed from September 14th – 16th, and fourth quarter monitoring was completed on from December 5th – 7th.

Groundwater monitoring, soil investigation activities, and laboratory analytical results and trends are summarized in the following sections.

2.1 Groundwater Gauging and Sampling

During sampling events groundwater level measurements were recorded from selected monitoring wells in accordance with USEPA Low-Stress (or Low-Flow) Purging and Sampling Procedures (USEPA 2017). Groundwater was measured to the nearest 0.01 foot with an electronic water level meter. Groundwater elevations were calculated using surveyed top-of-well casing elevations. A summary of water levels and groundwater elevations is presented in **Table 1**. Refer to **Figure 1B** for locations of existing monitoring wells.

Following gauging activities, groundwater samples were collected using low-flow sampling procedures (USEPA 2017), which is the USEPA Region V standard method for collecting low-stress/low-flow groundwater samples from monitoring wells.

During sampling, purge water was monitored for dissolved oxygen (DO), temperature, specific conductivity, turbidity, oxygen reduction potential (ORP), and pH. These water quality measurements were used to determine groundwater sample stability prior to collection of the groundwater samples. All groundwater sampling logs are provided in **Appendix B**.

Groundwater samples were collected and submitted to Merit Laboratories, Inc. (Merit) in Lansing, Michigan for analysis of VOCs using USEPA Method 8260C. Due to a lack of sufficient groundwater present in the monitoring well JS-MW-06 a groundwater sample was unable to be collected for laboratory analysis during the Q3 and Q4 events, and JS-MW-09 was unable to be sampled during the Q4 event.

2.2 Soil Borings

To further understand the geology and hydrogeology at the Site and potential movement of existing groundwater impacts through the subsurface, additional soil borings were advanced in the vicinity of the former station building and fueling area. On December 19th, 2022, three soil borings (JS-SB-31 through JS-SB-33) were completed within or near the suspected former dispenser area. The locations of JS-SB-31 through JS-SB-33 are shown on **Figure 1B**. JS-SB-31A was completed 1 foot away from JS-SB-31 to collect additional soil samples. At each soil boring the following was completed:

- Each soil boring was advanced via direct-push drilling technology to approximately 15 feet below ground surface (bgs) and screened with a photoionization detector (PID).
- The water table was identified at each boring location.
- Approximately eight to nine soil samples per boring were collected and submitted for VOC analysis. Sample intervals were collected every foot from approximately 1-foot bgs to 14 feet bgs.

Soil boring logs for JS-SB-31 through JS-SB-33 are included as **Appendix C**. The results of the soil source investigation are described in Section 3.3.

3 Investigation Results Summary

The investigation results from activities completed in 2022 are summarized in the sections below. Data collected from the investigation and quarterly groundwater sampling were used to strengthen the conceptual site model (CSM) by better understanding source areas and Site geology and hydrogeology to identify transport zones.

3.1 Site Geology and Hydrogeology

The Site has a consistent medium to coarse grained sand layer from approximately 0 – 4 feet bgs. Underlying the sand layer is a high plasticity clay layer with inconsistent silt, clayey-sand and sand seams. Four cross-sections were created based on the soil boring logs to assess the current geology at the Site, one from north to south (**Figure 2A**), one from west to east (**Figure 2B**), one from northeast to southwest bisecting the three new soil borings (**Figure 2C**), and one from north to south near the eastern property boundary (**Figure 2D**).

A description of what is depicted on each cross section follows:

- A-A1 – A consistent sand/sandy clay layer is present from approximately 0-4 feet bgs, except for JS-SB-13, where the sand layer is much thicker, from approximately 0-13 feet bgs. Underlying the sand layer is a high plasticity clay layer with inconsistent silt, sandy clay, sand, and gravel seams.
- B-B1 - A consistent sand/sandy clay layer is present from approximately 0-4 feet bgs, except for JS-SB-12, where the sand layer is much thicker, from approximately 0-13 feet bgs. Underlying the sand layer is a high plasticity clay layer with inconsistent silt and sand seams.
- C-C1 - A consistent sand layer is present from approximately 0-4 feet bgs. Underlying the sand layer is a high plasticity clay layer from approximately 3.5-16 feet bgs. Within the clay layer, there is a consistent sand seam from approximately 4.5-5.5 feet bgs, and a non-plastic silt seam from approximately 12-12.8 feet bgs. Furthest South is a sandy clay and sand layer from approximately 3.5-10.5 feet bgs.
- D-D1 – A consistent sand/sandy clay layer is present from approximately 0-4 feet bgs. Underlying the sand layer is a high plasticity clay layer with a consistent sand seam from approximately 13-16 ft bgs.

The results of the groundwater gauging events indicate that the groundwater is encountered at depths ranging from 0.60 – 14.37 feet bgs. The wide range in groundwater depth is due to the poor connection of sand seams within the confining clay layer. Apparent groundwater flow direction is to the south-southeast. Groundwater flow direction was determined by selecting monitoring wells with similar total depths and measured depths to water. Groundwater elevation and groundwater flow direction across four quarters of sampling are shown on **Figures 3A – 3D**.

3.2 Groundwater Analytical Results

Over the four quarters of sampling at the Site, a total of 68 groundwater samples plus duplicates were collected and analyzed. Groundwater data was compared to Joslyn Site-Specific Volatilization to Indoor Air Criteria (SSVIAC) obtained from EGLE and also Part 201 EGLE Clean-up Criteria (December 2020). The EGLE provided SSVIAC criteria include residential criteria for basement scenarios and nonresidential criteria for slab-on-grade scenarios. A summary of the groundwater analytical results is provided on **Table 2** and the laboratory analytical reports are provided in **Appendix D**.

A summary of the four quarters of groundwater analytical results follows:

- There were exceedances of Groundwater Surface Water Interface, Residential Drinking Water, Nonresidential Drinking Water, Residential SSVIAC, or Nonresidential SSVIAC in nine (9) of the 21 wells sampled. A figure showing groundwater analytical results is provided in **Figure 4**.
- The primary compounds exceeded in groundwater include 1,2,3-trimethylbenzene (1,2,3-TMB), 1,2,4-trimethylbenzene (1,2,4-TMB), 1,3,5-trimethylbenzene (1,3,5-TMB), 1,2-dichloroethane (1,2-DCA), 2-methylnaphthalene, benzene, ethylbenzene, isopropyl benzene, naphthalene, N-butylbenzene, N-propylbenzene, and total xylenes.
 - Other compounds detected, but not exceeding criteria in groundwater include 2-phenylbutane and toluene.
- Elevated VOC detections are in or near the suspected former dispenser area at the south-central portion of the Site and decrease as they approach the south and southeast property boundaries.
- On the southeastern property boundary, JS-MW-06, JS-MW-16 and JS-MW-19 exceed residential and nonresidential SSVIAC for one or more of the following; 1,2-DCA, 1,2,4-TMB, benzene, ethylbenzene, isopropyl benzene, naphthalene, total xylenes.
- Offsite monitoring wells JS-MW-23 and JS-MW-29, to the south of the Site, exceeded Residential (but not non-residential) SSVIAC for benzene and/or ethylbenzene. Monitoring wells further south of JS-MW-23 (JS-MW-28, JS-MW-26 and JS-MW-30) were all below criteria or laboratory detection limits for VOCs.

3.3 Groundwater Analytical Trends

Concentration trends for the primary compounds exceeded in groundwater, including 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, 1,2-DCA, 2-Methylnaphthalene, benzene, ethylbenzene, isopropyl benzene, naphthalene, N-butylbenzene, N-propylbenzene, and total xylenes, were reviewed at select wells near the property boundaries and within the suspected former dispenser area at the south-central portion of the Site. Trend analysis from monitoring wells can provide insights regarding source maturity. Stable concentrations (i.e., no trend with low variability in concentrations over time) and decreasing trends indicate that the source is mature or depleted.

Increasing trends at individual source area wells can indicate an expanding plume but also can reflect the wide range of concentrations and temporal variability common at source areas. Trend graphs can be found for select monitoring wells in **Appendix D**.

Key findings of the trend analysis are summarized below:

- Concentrations observed from monitoring wells at or near the suspected former dispenser area show stable to decreasing trends for the primary detected compounds.
- Concentrations observed from monitoring wells along the eastern property boundary show stable to decreasing trends for the primary detected compounds.
- Concentrations observed from monitoring wells along the western property boundary show stable trends from the primary detected compounds.
- Concentrations observed from monitoring wells off-site to the south of the Site show stable trends for the primary detected compounds.

The results of 2022 monitoring indicate that groundwater impacts are largely confined to the Site and delineated to the south. Since groundwater results are slightly above residential SSVIAC on the southeastern property boundary, it is recommended that monitoring of groundwater conditions continue on a quarterly basis in 2023 to assess trends.

3.4 Soil Analytical Results

On December 19th, 2022, 27 soil samples were collected and analyzed from JS-SB-31 through JS-SB-33. Soil data was compared to Residential SSVIAC from EGLE, and Nonresidential SSVIAC calculated based on the residential criteria received from EGLE. A summary of the soil analytical results from 2021-2022 investigations is provided on **Table 3** and the laboratory analytical reports are provided in **Appendix D**.

A summary of the December 2022 soil analytical results follows:

- The primary compounds exceeded in soil include 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, 1,2-DCA, 2-methylnaphthalene, benzene, ethylbenzene, isopropyl benzene, naphthalene, N-butylbenzene, N-propylbenzene, and total xylenes. A figure showing soil analytical results is provided in **Figure 5** and also posted in cross-sections in **Figures 2A-2D**.
 - Other compounds detected, but not exceeding criteria in groundwater are 2-phenylbutane and toluene.
- The majority of elevated VOC detections are in or near the suspected former dispenser area at the south-central portion of the Site ranging in depth from 8 -14 feet bgs. with the highest concentrations detected just above the observed water table. Shallow soils are clean, and impacts are likely associated with a smear zone due to the historical release of LNAPL.

4 Next Steps

Based on historical details summarized in the *2021 Joslyn Avenue Parcels Historical Summary Memorandum* (Arcadis 2021a) and the results of subsurface investigation activities described in this and previous Site investigation reports, ten (10) monitoring wells will continue to be gauged and sampled on a quarterly basis and six (6) wells will be gauged and sampled on a semi-annual basis through 2023, as depicted in **Figure 6**. The 2023 monitoring plan is further detailed in **Table 4**. Results from the 2023 groundwater sampling events will be summarized in a brief technical memorandum at a semi-annual frequency and submitted to USEPA and EGLE, at which time an assessment will be completed to determine appropriate changes or modifications, if any. The first quarterly event was conducted March 9th, March 13th-14th, 2023.

5 References

- Arcadis 2021a. Joslyn Avenue Parcels Historical Summary Memorandum and Request for Determination for Parcels Not Being Regulated Under RCRA, including Corrective Action, and Not Being Covered Under Administrative Order on Consent RCRA-05-2011-00019, RACER Trust, Pontiac Michigan, January 19, 2021.
- Arcadis 2021b. Joslyn – Westbrook South Parcel Screening Investigation Report, RACER Trust, Pontiac, Michigan, August 24, 2021.
- Arcadis 2022. Joslyn South Parcel Investigation Report, RACER Trust, Pontiac, Michigan, July 15, 2022.
- Conestoga-Rovers, and Associates (CRA). 1998. Leaking Underground Storage Tank Closure Report. October 30, 1998.
- EGLE. 2020. Clean Up Criteria Requirements Table 1: Groundwater: Residential and Nonresidential, Part 201 Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- EGLE. 2022. SSVIAC for RACER PNC Joslyn South Parcel Property Table1: Residential Part 201 SSVIAC or Part 213 VIAP STTLs, April 21, 2022.
- ENCORE. 2001. Current Conditions Report, Pontiac North Campus, Volume I of IV. General Motors Corporation. Pontiac, Michigan. January 31.
- Parsons. 1997a. Initial Assessment Report, Vacant Lot, GM Powertrain, Pontiac, Michigan. January 30, 1997.
- Parsons. 1997c. Final Assessment Report, Vacant Lot, GM Powertrain, Pontiac, Michigan. October 29, 1997.
- U.S. Environmental Protection Agency (USEPA; Region I). 1996. Low-Stress (or Low-Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells – Revision 4. July 30, 1996; Revised September 19, 2017.

Tables

Table 1
Groundwater Elevation Summary
Joslyn South Parcel
RACER Trust Pontiac North Campus



Well ID	Ground Elevation	Well Elevation ¹	Total Depth (ft)	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
				Date	Depth to Water (ft) ²	Groundwater Elevation	Date	Depth to Water (ft) ²	Groundwater Elevation	Date	Depth to Water (ft) ²	Groundwater Elevation	Date	Depth to Water (ft) ²	Groundwater Elevation
Joslyn-Wesbrook South Parcel Monitoring Wells															
JS-MW-03	987.34	987.11	13.83	12/28/2021	5.19	981.92	6/20/2022	9.15	977.96	9/14/2022	12.48	974.63	12/5/2022	Dry	NA
JS-MW-04	987.69	987.49	13.66	12/28/2021	5.21	982.28	6/20/2022	6.47	981.02	9/14/2022	7.80	979.69	12/5/2022	8.72	978.77
JS-MW-05	986.29	985.94	9.98	12/28/2021	2.55	983.39	6/20/2022	5.06	980.88	9/14/2022	6.91	979.03	12/5/2022	8.15	977.79
JS-MW-06	984.97	984.71	13.92	12/28/2021	6.56	978.15	6/20/2022	10.65	974.06	9/14/2022	13.40	971.31	12/5/2022	13.80	970.91
JS-MW-07	985.74	985.42	14.63	12/28/2021	3.23	982.19	6/20/2022	7.62	977.80	9/14/2022	11.25	974.17	12/5/2022	12.37	973.05
JS-MW-09	986.99	986.61	13.01	12/28/2021	6.37	980.24	6/20/2022	9.53	977.08	9/14/2022	12.16	974.45	12/5/2022	12.86	973.75
JS-MW-10	986.96	986.72	15.78	12/28/2021	7.54	979.18	6/20/2022	10.46	976.26	9/14/2022	12.83	973.89	12/5/2022	13.85	972.87
JS-MW-11	985.69	985.40	13.80	12/28/2021	5.15	980.25	6/20/2022	10.12	975.28	9/14/2022	13.05	972.35	12/5/2022	13.37	972.03
JS-MW-16	985.75	985.34	15.83	12/28/2021	6.23	979.11	6/20/2022	10.71	974.63	9/14/2022	13.33	972.01	12/5/2022	13.75	971.59
JS-MW-19	984.48	984.05	16.66	12/28/2021	5.11	978.94	6/20/2022	10.29	973.76	9/14/2022	12.90	971.15	12/5/2022	14.37	969.68
JS-MW-20	986.07	985.64	17.82	12/28/2021	6.58	979.06	6/20/2022	9.82	975.82	9/14/2022	12.24	973.40	12/5/2022	13.20	972.44
JS-MW-21	984.13	983.59	16.85	12/28/2021	5.70	977.89	6/20/2022	9.77	973.82	9/14/2022	12.42	971.17	12/5/2022	13.87	969.72
JS-MW-22	983.52	983.14	17.71	12/28/2021	5.32	977.82	6/20/2022	9.39	973.75	9/14/2022	11.98	971.16	12/5/2022	13.45	969.69
JS-MW-23	984.63	984.30	10.30	12/28/2021	1.14	983.16	6/20/2022	2.72	981.58	9/14/2022	4.38	979.92	12/5/2022	4.72	979.58
JS-MW-24	983.70	983.32	7.23	12/28/2021	0.60	982.72	6/20/2022	2.23	981.09	9/14/2022	3.80	979.52	12/5/2022	4.11	979.21
JS-MW-25	983.51	983.11	7.31	12/28/2021	1.97	981.14	6/20/2022	2.58	980.53	9/14/2022	4.25	978.86	12/5/2022	4.43	978.68
JS-MW-26	984.64	984.22	18.02	12/28/2021	4.92	979.30	6/20/2022	8.09	976.13	9/14/2022	11.16	973.06	12/5/2022	12.66	971.56
JS-MW-27	987.90	987.55	15.78	12/28/2021	9.88	977.67	6/20/2022	10.36	977.19	9/14/2022	11.45	976.10	12/5/2022	12.30	975.25
JS-MW-28	985.72	985.26	9.68	12/28/2021	2.37	982.89	6/20/2022	3.57	981.69	9/14/2022	5.29	979.97	12/5/2022	5.72	979.54
JS-MW-29	985.28	984.93	10.18	12/28/2021	1.22	983.71	6/20/2022	3.80	981.13	9/14/2022	5.10	979.83	12/5/2022	5.12	979.81
JS-MW-30	984.54	984.07	8.18	12/28/2021	1.21	982.86	6/20/2022	2.52	981.55	9/14/2022	4.24	979.83	12/5/2022	4.62	979.45

Abbreviations:
ft - feet

Footnotes:
¹ Top of Temporary Well Casing/Stickup Elevation is in feet National Vertical Geodetic Datum (1988).
² Depth to water measurements collected from top of temporary well casing/stickup.

Table 2
Groundwater Analytical Results
Joslyn South Parcel
RACER Trust Pontiac North Campus



Chemical Name	Units	Groundwater Surface Water Interface ¹	Residential Drinking Water ¹	Nonresidential Drinking Water ¹	Res Joslyn SSVIAC BASE ²	NR Joslyn SSVIAC <50k SOG ³	Location ID	JS-MW-03	JS-MW-04	JS-MW-04	JS-MW-04	JS-MW-04	JS-MW-05	JS-MW-05	JS-MW-05	JS-MW-06	JS-MW-06	JS-MW-07	JS-MW-09
							Date Collected	12/28/2021	12/28/2021	6/21/2022	9/16/2022	12/5/2022	12/28/2021	9/15/2022	12/6/2022	12/29/2021	6/21/2022	12/29/2021	12/29/2021
VOCs																			
1,1-Dichloroethane	ug/L	740	880	2,500	4.7	40		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	< 10 UY	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,2,3-Trimethylbenzene	ug/L	--	--	--	43	150		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	140 Y	120 Y	30 S	1	< 1 U	200 E [208 E]
1,2,4-Trimethylbenzene	ug/L	17	63	63	25	120		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	10	210 Y	80 Y	513 SE	63	< 1 U	801 E [755 E]
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.7	0.05	0.05	0.13	0.39		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	< 10 UY	< 10 UY	< 1 US	< 1 U	< 1 U	< 1 U [< 1 U]
1,2-Dichloroethane	ug/L	360	5.0	5.0	1.4	5.1		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	< 10 UY	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,3,5-Trimethylbenzene	ug/L	45	72	72	18	110		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	4	70 Y	30 Y	< 114 USX	< 1 U	< 1 U	233 E [267 E]
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	2,200	13,000	38,000	2,600	12,000		< 25 U	< 25 U [< 25 U]	< 25 U [< 25 U]	< 25 U [< 25 U]	< 25 U [< 25 U]	< 25 U	< 250 UY	< 250 UY	< 25 U	< 25 U	< 25 U	< 25 U [< 25 U]
2-Methylnaphthalene	ug/L	19	260	750	66	110		< 5 U	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U	< 50 UY	< 50 UY	6 S	< 5 U	< 5 U	30 [35]
2-Phenylbutane (sec-Butylbenzene)	ug/L	--	80	230	270	400		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	< 10 UY	< 10 UY	2 S	< 1 U	< 1 U	4 [4]
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	--	1,800	5,200	200	5,000		< 50 U	< 50 U [< 50 U]	< 50 U [< 50 U]	< 50 U [< 50 U]	< 50 U [< 50 U]	< 50 U	< 500 UY	< 500 UY	< 50 US	< 50 U	< 50 U	< 50 U [< 50 U]
Acetone	ug/L	1,700	730	2,100	50,000	200,000		< 50 U	< 50 U [< 50 U]	< 50 U [< 50 U]	< 50 U [< 50 U]	< 50 U [< 50 U]	< 50 U	< 500 UY	< 500 UY	< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]
Benzene	ug/L	200	5.0	5.0	1.0	8.4		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	8	1880 Y	1450 Y	19	3	< 1 U	438 E [435 E]
Ethylbenzene	ug/L	18	74	74	2.8	28		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	6	690 Y	280 Y	488 SE	69	< 1 U	463 E [439 E]
Isopropyl benzene	ug/L	28	800	2,300	0.60	6.7		< 5 U	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U	20 Y	< 50 UY	26 S	< 5 U	< 5 U	26 [27]
Methyl tert butyl ether (MTBE)	ug/L	7,100	40	40	250	810		< 5 U	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U	< 50 UY	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
Naphthalene	ug/L	11	520	1,500	4.2	12		< 5 U	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U [< 5 U]	< 5 U	300 Y	260 Y	83	12	< 5 U	137 [146]
N-Butylbenzene	ug/L	--	80	230	44	360		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 2 UX	< 10 UY	< 10 UY	< 22 USX	< 1 U	< 1 U	< 66 UX [< 69 UX]
N-Propylbenzene	ug/L	--	80	230	43	970		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	1	70 Y	< 10 UY	84 S	9	< 1 U	92 [95]
Styrene	ug/L	80	100	100	33	170		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	< 10 UY	< 10 UY	< 1 US	< 1 U	< 1 U	< 1 U [< 1 U]
tert-Butylbenzene	ug/L	--	80	230	0.077	0.71		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	< 10 UY	< 10 UY	< 1 US	< 1 U	< 1 U	< 1 U [< 1 U]
Toluene	ug/L	270	790	790	300	6,600		< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	100 Y	70 Y	8	1	< 1 U	81 [81]
Total Xylenes	ug/L	49	280	280	75	410		< 2 U	< 2 U [< 2 U]	< 2 U [< 2 U]	< 2 U [< 2 U]	< 2 U [< 2 U]	9	1410 Y	730 Y	752 SE	94	< 2 U	1,342 E [1,277 E]

Table 2
Groundwater Analytical Results
Joslyn South Parcel
RACER Trust Pontiac North Campus



Chemical Name	Units	Groundwater Surface Water Interface ¹	Residential Drinking Water ¹	Nonresidential Drinking Water ¹	Res Joslyn SSVIAC BASE ²	NR Joslyn SSVIAC <50k SOG ³	Location ID	JS-MW-09	JS-MW-09	JS-MW-10	JS-MW-10	JS-MW-10	JS-MW-10	JS-MW-10	JS-MW-11	JS-MW-16	JS-MW-16	JS-MW-16	JS-MW-16	JS-MW-19
							Date Collected	6/22/2022	9/15/2022	12/29/2021	6/22/2022	9/16/2022	12/5/2022	12/30/2021	12/30/2021	6/22/2022	9/15/2022	12/6/2022	12/30/2021	
VOCs																				
1,1-Dichloroethane	ug/L	740	880	2,500	4.7	40		< 20 UY [< 20 UY]	< 20 UY [< 20 UY]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
1,2,3-Trimethylbenzene	ug/L	--	--	--	43	150		400 Y [400 Y]	210 Y [320 Y]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	3	5	2	4	
1,2,4-Trimethylbenzene	ug/L	17	63	63	25	120		1490 Y [1480 Y]	810 Y [1280 Y]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	2	20	6	4	1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.7	0.05	0.05	0.13	0.39		< 20 UY [< 20 UY]	< 20 UY [< 20 UY]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
1,2-Dichloroethane	ug/L	360	5.0	5.0	1.4	5.1		< 20 UY [< 20 UY]	< 20 UY [< 20 UY]	< 1 U	< 1 U	2	1	< 1 U	1	< 1 U	13	7	< 1 U	
1,3,5-Trimethylbenzene	ug/L	45	72	72	18	110		450 Y [440 Y]	230 Y [360 Y]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	3	< 1 U	< 1 U	1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	2,200	13,000	38,000	2,600	12,000		< 500 UY [< 500 UY]	< 500 UY [< 500 UY]	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	
2-Methylnaphthalene	ug/L	19	260	750	66	110		< 100 UY [< 100 UY]	< 100 UY [< 100 UY]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
2-Phenylbutane (sec-Butylbenzene)	ug/L	--	80	230	270	400		< 20 UY [< 20 UY]	< 20 UY [< 20 UY]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1	< 1 U	< 1 U	< 1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	--	1,800	5,200	200	5,000		< 1000 UY [< 1000 UY]	< 1000 UY [< 1000 UY]	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
Acetone	ug/L	1,700	730	2,100	50,000	200,000		< 1000 UY [< 1000 UY]	< 1000 UY [< 1000 UY]	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
Benzene	ug/L	200	5.0	5.0	1.0	8.4		580 Y [600 Y]	420 Y [490 Y]	16	76	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	2	7	6	15
Ethylbenzene	ug/L	18	74	74	2.8	28		1610 Y [1590 Y]	980 Y [1420 Y]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	36
Isopropyl benzene	ug/L	28	800	2,300	0.60	6.7		< 100 UY [< 100 UY]	20 Y [30 Y]	< 5 U	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	2	< 5 U	16	
Methyl tert butyl ether (MTBE)	ug/L	7,100	40	40	250	810		< 100 UY [< 100 UY]	< 100 UY [< 100 UY]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
Naphthalene	ug/L	11	520	1,500	4.2	12		300 Y [200 Y]	100 Y [200 Y]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	24
N-Butylbenzene	ug/L	--	80	230	44	360		< 20 UY [< 20 UY]	< 20 UY [< 20 UY]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
N-Propylbenzene	ug/L	--	80	230	43	970		190 Y [180 Y]	90 Y [150 Y]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	5	13	2	1	36
Styrene	ug/L	80	100	100	33	170		< 20 UY [< 20 UY]	< 20 UY [< 20 UY]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
tert-Butylbenzene	ug/L	--	80	230	0.077	0.71		< 20 UY [< 20 UY]	< 20 UY [< 20 UY]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
Toluene	ug/L	270	790	790	300	6,600		100 Y [100 Y]	70 Y [100 Y]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	4
Total Xylenes	ug/L	49	280	280	75	410		4510 Y [4490 Y]	2920 Y [4230 Y]	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	8	12	10	75

Table 2
Groundwater Analytical Results
Joslyn South Parcel
RACER Trust Pontiac North Campus



Chemical Name	Units	Groundwater Surface Water Interface ¹	Residential Drinking Water ₁	Nonresidential Drinking Water ¹	Res Joslyn SSVIAC BASE ²	NR Joslyn SSVIAC <50k SOG ³	Location ID	JS-MW-19	JS-MW-19	JS-MW-19	JS-MW-20	JS-MW-20	JS-MW-20	JS-MW-20	JS-MW-21	JS-MW-21	JS-MW-21	JS-MW-21	JS-MW-22	JS-MW-22
							Date Collected	6/21/2022	9/15/2022	12/6/2022	1/4/2022	6/23/2022	9/15/2022	12/7/2022	1/4/2022	6/22/2022	9/14/2022	12/6/2022	1/4/2022	6/22/2022
VOCs																				
1,1-Dichloroethane	ug/L	740	880	2,500	4.7	40		< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,2,3-Trimethylbenzene	ug/L	--	--	--	43	150		2	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,2,4-Trimethylbenzene	ug/L	17	63	63	25	120		< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.7	0.05	0.05	0.13	0.39		< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,2-Dichloroethane	ug/L	360	5.0	5.0	1.4	5.1		< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,3,5-Trimethylbenzene	ug/L	45	72	72	18	110		< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	2,200	13,000	38,000	2,600	12,000		< 25 U	< 25 U	< 25 U	< 25 U [< 25 U]	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U [< 25 U]	< 25 U	< 25 U
2-Methylnaphthalene	ug/L	19	260	750	66	110		< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
2-Phenylbutane (sec-Butylbenzene)	ug/L	--	80	230	270	400		< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	--	1,800	5,200	200	5,000		< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]	< 50 U	< 50 U
Acetone	ug/L	1,700	730	2,100	50,000	200,000		< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]	< 50 U	< 50 U
Benzene	ug/L	200	5.0	5.0	1.0	8.4		18	5	3	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Ethylbenzene	ug/L	18	74	74	2.8	28		9	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Isopropyl benzene	ug/L	28	800	2,300	0.60	6.7		11	3	< 5 U	< 5 U [< 5 U]	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	< 1 U	< 5 U [< 5 U]	< 5 U	< 5 U
Methyl tert butyl ether (MTBE)	ug/L	7,100	40	40	250	810		< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
Naphthalene	ug/L	11	520	1,500	4.2	12		13	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
N-Butylbenzene	ug/L	--	80	230	44	360		< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
N-Propylbenzene	ug/L	--	80	230	43	970		26	7	2	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Styrene	ug/L	80	100	100	33	170		< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
tert-Butylbenzene	ug/L	--	80	230	0.077	0.71		< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Toluene	ug/L	270	790	790	300	6,600		3	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Total Xylenes	ug/L	49	280	280	75	410		32	3	< 2 U	< 2 U [< 2 U]	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U [< 2 U]	< 2 U	< 2 U

Table 2
Groundwater Analytical Results
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Chemical Name	Units	Groundwater Surface Water Interface ¹	Residential Drinking Water ¹	Nonresidential Drinking Water ¹	Res Joslyn SSVIAC BASE ²	NR Joslyn SSVIAC <50k SOG ³	Location ID	JS-MW-22	JS-MW-22	JS-MW-23	JS-MW-23	JS-MW-23	JS-MW-23	JS-MW-23	JS-MW-24	JS-MW-24	JS-MW-24	JS-MW-24	JS-MW-25	JS-MW-26	JS-MW-27
							Date Collected	9/14/2022	12/5/2022	1/5/2022	6/20/2022	9/14/2022	12/7/2022	1/5/2022	6/21/2022	9/16/2022	12/7/2022	1/5/2022	1/6/2022	1/6/2022	
VOCs																					
1,1-Dichloroethane	ug/L	740	880	2,500	4.7	40		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
1,2,3-Trimethylbenzene	ug/L	--	--	--	43	150		< 1 U	< 1 U	7	2	3	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
1,2,4-Trimethylbenzene	ug/L	17	63	63	25	120		< 1 U	< 1 U	2	< 1 U	2	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.7	0.05	0.05	0.13	0.39		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
1,2-Dichloroethane	ug/L	360	5.0	5.0	1.4	5.1		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	3	
1,3,5-Trimethylbenzene	ug/L	45	72	72	18	110		< 1 U	< 1 U	2	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	2,200	13,000	38,000	2,600	12,000		< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	
2-Methylnaphthalene	ug/L	19	260	750	66	110		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
2-Phenylbutane (sec-Butylbenzene)	ug/L	--	80	230	270	400		< 1 U	< 1 U	< 1 U	< 1 U	1	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	--	1,800	5,200	200	5,000		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
Acetone	ug/L	1,700	730	2,100	50,000	200,000		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
Benzene	ug/L	200	5.0	5.0	1.0	8.4		< 1 U	< 1 U	2	3	7	4	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
Ethylbenzene	ug/L	18	74	74	2.8	28		< 1 U	< 1 U	9	5	16	1	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
Isopropyl benzene	ug/L	28	800	2,300	0.60	6.7		< 1 U	< 5 U	< 5 U	< 5 U	2	< 5 U	< 5 U	< 5 U	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	
Methyl tert butyl ether (MTBE)	ug/L	7,100	40	40	250	810		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
Naphthalene	ug/L	11	520	1,500	4.2	12		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
N-Butylbenzene	ug/L	--	80	230	44	360		< 1 U	< 1 U	1	< 1 U	2	1	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
N-Propylbenzene	ug/L	--	80	230	43	970		< 1 U	< 1 U	4	3	9	3	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
Styrene	ug/L	80	100	100	33	170		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
tert-Butylbenzene	ug/L	--	80	230	0.077	0.71		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
Toluene	ug/L	270	790	790	300	6,600		< 1 U	< 1 U	2	< 1 U	1	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	
Total Xylenes	ug/L	49	280	280	75	410		< 2 U	< 2 U	15	4	8	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	

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Groundwater Analytical Results
Joslyn South Parcel
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Chemical Name	Units	Groundwater Surface Water Interface ¹	Residential Drinking Water ¹	Nonresidential Drinking Water ¹	Res Joslyn SSVIAC BASE ²	NR Joslyn SSVIAC <50k SOG ³	Location ID	JS-MW-27	JS-MW-27	JS-MW-27	JS-MW-28	JS-MW-29	JS-MW-30	JS-MW-30	JS-MW-30	JS-MW-30
							Date Collected	6/23/2022	9/16/2022	12/6/2022	1/5/2022	1/4/2022	1/6/2022	6/21/2022	9/14/2022	12/7/2022
VOCs																
1,1-Dichloroethane	ug/L	740	880	2,500	4.7	40		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2,3-Trimethylbenzene	ug/L	--	--	--	43	150		< 1 U	< 1 U	< 1 U	< 1 U	3	< 1 U	< 1 U	< 1 U	< 1 U
1,2,4-Trimethylbenzene	ug/L	17	63	63	25	120		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.7	0.05	0.05	0.13	0.39		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichloroethane	ug/L	360	5.0	5.0	1.4	5.1		5	4	3	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,3,5-Trimethylbenzene	ug/L	45	72	72	18	110		< 1 U	< 1 U	< 1 U	< 1 U	3	< 1 U	< 1 U	< 1 U	< 1 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	2,200	13,000	38,000	2,600	12,000		< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
2-Methylnaphthalene	ug/L	19	260	750	66	110		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-Phenylbutane (sec-Butylbenzene)	ug/L	--	80	230	270	400		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	--	1,800	5,200	200	5,000		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Acetone	ug/L	1,700	730	2,100	50,000	200,000		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Benzene	ug/L	200	5.0	5.0	1.0	8.4		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	18	74	74	2.8	28		< 1 U	< 1 U	< 1 U	< 1 U	4	< 1 U	< 1 U	< 1 U	< 1 U
Isopropyl benzene	ug/L	28	800	2,300	0.60	6.7		< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 1 U	< 5 U
Methyl tert butyl ether (MTBE)	ug/L	7,100	40	40	250	810		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Naphthalene	ug/L	11	520	1,500	4.2	12		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
N-Butylbenzene	ug/L	--	80	230	44	360		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
N-Propylbenzene	ug/L	--	80	230	43	970		< 1 U	< 1 U	< 1 U	< 1 U	5	< 1 U	< 1 U	< 1 U	< 1 U
Styrene	ug/L	80	100	100	33	170		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
tert-Butylbenzene	ug/L	--	80	230	0.077	0.71		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Toluene	ug/L	270	790	790	300	6,600		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	ug/L	49	280	280	75	410		< 2 U	< 2 U	< 2 U	< 2 U	1	< 2 U	< 2 U	< 2 U	< 2 U

Notes:

- 1) Criteria listed are from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Clean Up Criteria Requirements Table 1: Groundwater: Residential and Nonresidential, Part 201 Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 2) Criteria listed are from the EGLE Joslyn Site-Specific Criteria Evaluation dated May 3, 2022.
- 3) Nonresidential SSVIAC was calculated from the Residential EGLE site-specific criteria.
- 4) Grey shaded values denote exceedance and/or equal to Michigan Groundwater Surface Water Interface criteria
- 5) Yellow highlighted values denote exceedance and/or equal to Michigan Residential Drinking Water criteria
- 6) Orange highlighted values denote exceedance and/or equal to Nonresidential Drinking Water criteria
- 7) Values in bold denote exceedance and/or equal to Residential Joslyn site-specific volatilization to indoor air criteria
- 8) Italicized values denote exceedance and/or equal to Nonresidential Joslyn site-specific volatilization to indoor air criteria <50k - Basement scenario
- 9) Samples were analyzed using USEPA Method 8260
- 10) Duplicate analyses are presented in brackets

Abbreviations:

<	Not detected above the laboratory reporting limit
ug/L	Micrograms per liter
E	Concentration exceeds calibration range
S	Surrogate recovery outside of control limits
U	Compound was analyzed for but not detected. The associated value is the compound quantitation limit.
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
BASE	Basement scenario
NR	Nonresidential
RES	Residential
SOG	Slab-On-Grade scenario
SSVIAC	Site-specific volatilization to indoor air criteria
VOCs	Volatile organic compounds
<50k	Less than 50,000 square feet

Table 3
Soil Analytical Results
Joslyn-Wesbrook South Parcel
RACER Trust Pontiac North Campus



Chemical Name	Units	Residential Joslyn SSVIAC BASE	NR Josyn SSVIAC <50k SOG	Location ID	JS-SB-01	JS-SB-02	JS-MW-03	JS-MW-03	JS-MW-04	JS-MW-05	JS-MW-05	JS-MW-06	JS-MW-07	JS-SB-08	JS-MW-09	JS-MW-09	JS-MW-10
				Date Collected	4/29/2021	4/27/2021	4/28/2021	4/28/2021	4/28/2021	4/28/2021	4/28/2021	4/29/2021	4/29/2021	4/30/2021	4/30/2021	4/30/2021	
				Start Depth (ft. bgs)	7.5	11	2	11.2	4.6	5	7	12.1	12.4	4.2	9	10	14
				End Depth (ft. bgs)	8.5	12	3	12.2	5.6	6	8	13.1	13.4	5.2	10	11	15
VOCs																	
1,1-Dichloroethane	ug/kg	2.6	74		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 600 UY	< 3,000 UY	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	< 600 UY	< 60 U	< 60 U
1,2,3-Trimethylbenzene	ug/kg	270	4,800		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	6,900 Y	31,000 Y	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	1,700 Y	2,040	< 60 U
1,2,4-Trimethylbenzene	ug/kg	150	2,600		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	6,700 Y	136,000 Y	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	11,400 Y	5,090	< 60 U
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	0.07	2.1		< 20 UM	< 20 UM	< 30 UM	< 20 UM	< 30 UM	< 200 UYM	< 1,000 UYM	< 20 UM	< 30 UM [< 30 UM]	< 30 UM [< 30 UM]	< 300 UYM	< 20 UM	< 20 UM
1,2-Dichloroethane	ug/kg	0.8	23		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 600 UY	< 3,000 UY	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	< 600 UY	< 60 U	110
1,3,5-Trimethylbenzene	ug/kg	100	1,800		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	6,000 Y	48,000 Y	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	< 600 UY	680	< 60 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	31,000	370,000		< 930 U	< 920 U	< 980 U	< 920 U	< 960 U	< 8,700 UY	< 46,000 UY	< 900 U	< 950 U [< 950 U]	< 1,100 U [< 1,000 U]	< 9,500 UY	< 890 U	< 880 U
2-Methylnaphthalene	ug/kg	1,700	30,000		< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	12,000 Y	40,000 Y	< 100 U	< 100 U [< 100 U]	< 100 U [< 100 U]	1,000 Y	900	< 100 U
2-Phenylbutane (sec-Butylbenzene)	ug/kg	3,800	49,000		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 600 UY	< 3,000 UY	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	< 600 UY	100	< 60 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	3,300	150,000		< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 30,000 UY	< 200,000 UY	< 3,000 U	< 3,000 U [< 3,000 U]	< 4,000 U [< 3,000 U]	< 30,000 UY	< 3,000 U	< 3,000 U
Acetone	ug/kg	260,000	3,100,000		< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 10,000 UY	< 60,000 UY	< 1,000 U	< 1,000 U [< 1,000 U]	< 1,000 U [< 1,000 U]	< 10,000 UY	< 1,000 U	< 1,000 U
Benzene	ug/kg	1.7	47		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 600 UY	< 3,000 UY	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	< 600 UY	450	< 60 U
Ethylbenzene	ug/kg	12	340		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	9,000 Y	48,000 Y	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	2,100 Y	4,770	< 60 U
Isopropyl benzene	ug/kg	3.8	110		< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 3,000 UY	< 20,000 UY	< 300 U	< 300 U [< 300 U]	< 400 U [< 300 U]	< 3,000 UY	< 300 U	< 300 U
Methyl tert butyl ether (MTBE)	ug/kg	74	2,100		< 200 U	< 200 U	< 300 U	< 200 U	< 300 U	< 2,000 UY	< 10,000 UY	< 200 U	< 300 U [< 300 U]	< 300 U [< 300 U]	< 3,000 UY	< 200 U	< 200 U
Naphthalene	ug/kg	67	1,900		< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	10,000 Y	40,000 Y	< 300 U	< 300 U [< 300 U]	< 400 U [< 300 U]	< 3,000 UY	1,600	< 300 U
N-Butylbenzene	ug/kg	550	9,800		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	3,900 Y	15,000 Y	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	800 Y	510	< 60 U
N-Propylbenzene	ug/kg	1,800	21,000		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	4,600 Y	19,000 Y	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	1,900 Y	1,490	< 60 U
Styrene	ug/kg	150	4,300		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 600 UY	< 3,000 UY	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	< 600 UY	< 60 U	< 60 U
tert-Butylbenzene	ug/kg	0.64	11		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 600 UY	< 3,000 UY	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	< 600 UY	< 60 U	< 60 U
Toluene	ug/kg	3,700	64,000		< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 600 UY	< 3,000 UY	< 60 U	< 60 U [< 60 U]	< 70 U [< 70 U]	< 600 UY	< 60 U	< 60 U
Xylene (total)	ug/kg	280	5,000		< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	18,000 Y	220,000 Y	< 100 U	< 100 U [< 100 U]	< 100 U [< 100 U]	3,000 Y	4,600	< 100 U

Table 3
Soil Analytical Results
Joslyn-Wesbrook South Parcel
RACER Trust Pontiac North Campus



Chemical Name	Units	Residential Joslyn SSVIAC BASE	NR Josyn SSVIAC <50k SOG	Location ID	JS-MW-11	JS-SB-12	JS-SB-12	JS-SB-13	JS-SB-14	JS-SB-14	JS-SB-15	JS-SB-15	JS-MW-16	JS-MW-16	JS-SB-17	JS-SB-17	JS-SB-18
				Date Collected	4/30/2021	11/30/2021	11/30/2021	11/30/2021	11/30/2021	11/30/2021	12/2/2021	12/2/2021	12/6/2021	12/6/2021	12/6/2021	12/6/2021	12/6/2021
				Start Depth (ft. bgs)	12.4	12	23	11	6	10	12	16	14	16	10	14	15
				End Depth (ft. bgs)	13.4	13	24	12	8	11	13	17	15	17	11	15	16
VOCs																	
1,1-Dichloroethane	ug/kg	2.6	74		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U
1,2,3-Trimethylbenzene	ug/kg	270	4,800		< 60 U	6,350	< 60 U	< 60 U	1,200	< 60 U	11,050	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U
1,2,4-Trimethylbenzene	ug/kg	150	2,600		< 60 U	22,340 E	< 60 U	< 60 U	4,330	< 60 U	35,590 E	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	0.07	2.1		< 20 UM	< 30 UM	< 30 UM	< 20 UM	< 20 UM	< 20 UM	< 30 UM	< 20 UM	< 20 UM	< 20 UM	< 30 UM	< 20 UM	< 20 UM
1,2-Dichloroethane	ug/kg	0.8	23		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	150	< 70 U	< 60 U	< 60 U
1,3,5-Trimethylbenzene	ug/kg	100	1,800		< 60 U	6,360	< 60 U	< 60 U	140	< 60 U	2,950	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	31,000	370,000		< 890 U	< 960 U	< 950 U	< 880 U	< 900 U	< 910 U	< 1100 U	< 880 U	< 900 U	< 870 U	< 980 U	< 890 U	< 880 U
2-Methylnaphthalene	ug/kg	1,700	30,000		< 100 U	2,600	< 100 U	< 100 U	400	< 100 U	6,400	< 100 U	300	< 100 U	< 100 U	< 100 U	< 100 U
2-Phenylbutane (sec-Butylbenzene)	ug/kg	3,800	49,000		< 60 U	380	< 60 U	< 60 U	< 60 U	< 60 U	1,250	< 60 U	130	< 60 U	200	< 60 U	< 60 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	3,300	150,000		< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 4,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U
Acetone	ug/kg	260,000	3,100,000		< 1,000 U	< 5,000 UX	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U
Benzene	ug/kg	1.7	47		< 60 U	< 60 U	< 60 U	< 60 U	120	6,810	< 70 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	6,400
Ethylbenzene	ug/kg	12	340		< 60 U	9,760	< 60 U	< 60 U	2,480	110	7,490	< 60 U	60	< 60 U	< 70 U	< 60 U	< 60 U
Isopropyl benzene	ug/kg	3.8	110		< 300 U	800	< 300 U	< 300 U	< 300 U	< 300 U	1,800	< 300 U	300	< 300 U	< 300 U	< 300 U	< 300 U
Methyl tert butyl ether (MTBE)	ug/kg	74	2,100		< 200 U	< 300 U	< 300 U	< 200 U	< 200 U	< 200 U	< 300 U	< 200 U	< 200 U	< 200 U	< 300 U	< 200 U	< 200 U
Naphthalene	ug/kg	67	1,900		< 300 U	3,400	< 300 U	< 300 U	1,100	< 300 U	4,700	< 300 U	1,400	< 300 U	< 300 U	< 300 U	< 300 U
N-Butylbenzene	ug/kg	550	9,800		< 60 U	2,300	< 60 U	< 60 U	190	< 60 U	4,780	< 60 U	300	< 60 U	490	< 60 U	< 60 U
N-Propylbenzene	ug/kg	1,800	21,000		< 60 U	4,460	< 60 U	< 60 U	770	< 60 U	10,020	< 60 U	1,900	< 60 U	700	< 60 U	< 60 U
Styrene	ug/kg	150	4,300		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U
tert-Butylbenzene	ug/kg	0.64	11		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U
Toluene	ug/kg	3,700	64,000		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	110	< 70 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U
Xylene (total)	ug/kg	280	5,000		< 100 U	35,300	< 100 U	< 100 U	3,870	< 100 U	11,620	< 100 U	200	< 100 U	< 100 U	< 100 U	< 100 U

Table 3
Soil Analytical Results
Joslyn-Wesbrook South Parcel
RACER Trust Pontiac North Campus



Chemical Name	Units	Residential Joslyn SSVIAC BASE	NR Josyn SSVIAC <50k SOG	Location ID	JS-SB-18	JS-MW-19	JS-MW-19	JS-MW-20	JS-MW-20	JS-MW-21	JS-MW-22	JS-MW-22	JS-MW-23	JS-MW-23	JS-MW-24	JS-MW-25	JS-MW-26
				Date Collected	12/6/2021	12/2/2021	12/2/2021	12/3/2021	12/3/2021	12/2/2021	12/2/2021	12/2/2021	12/1/2021	12/1/2021	12/1/2021	12/1/2021	12/3/2021
				Start Depth (ft. bgs)	17	15	17	13.7	16	13	6	14.25	10	15	10	9	16
				End Depth (ft. bgs)	18	16	18	14.7	17	14	7	15.25	11	16	11	10	17
VOCs																	
1,1-Dichloroethane	ug/kg	2.6	74		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
1,2,3-Trimethylbenzene	ug/kg	270	4,800		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	2,600	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
1,2,4-Trimethylbenzene	ug/kg	150	2,600		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	1,360	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	0.07	2.1		< 20 UM	< 30 UM	< 20 UM	< 20 UM	< 30 UM	< 30 UM	< 20 UM	< 20 UM	< 30 UM	< 20 UM	< 30 UM [30 UM]	< 20 UM	< 30 UM [20 UM]
1,2-Dichloroethane	ug/kg	0.8	23		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
1,3,5-Trimethylbenzene	ug/kg	100	1,800		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	590	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	31,000	370,000		< 910 U	< 960 U	< 880 U	< 880 U	< 960 U	< 1000 U	< 870 U	< 850 U	< 940 U	< 890 U	< 940 U [1000 U]	< 920 U	< 960 U [910 U]
2-Methylnapthalene	ug/kg	1,700	30,000		< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	2,300	< 100 U	< 100 U [100 U]	< 100 U	< 100 U [100 U]
2-Phenylbutane (sec-Butylbenzene)	ug/kg	3,800	49,000		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	230	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	3,300	150,000		< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U [3,000 U]	< 3,000 U	< 3,000 U [3,000 U]
Acetone	ug/kg	260,000	3,100,000		< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U [1,000 U]	< 1,000 U	< 1,000 U [1,000 U]
Benzene	ug/kg	1.7	47		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	170	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
Ethylbenzene	ug/kg	12	340		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	2,520	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
Isopropyl benzene	ug/kg	3.8	110		< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	400	< 300 U	< 300 U [300 U]	< 300 U	< 300 U [300 U]
Methyl tert butyl ether (MTBE)	ug/kg	74	2,100		< 200 U	< 300 U	< 200 U	< 200 U	< 300 U	< 300 U	< 200 U	< 200 U	< 300 U	< 200 U	< 300 U [300 U]	< 200 U	< 300 U [200 U]
Naphthalene	ug/kg	67	1,900		< 300 U	400	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	1,500	< 300 U	< 300 U [300 U]	< 300 U	< 300 U [300 U]
N-Butylbenzene	ug/kg	550	9,800		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	1,000	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
N-Propylbenzene	ug/kg	1,800	21,000		< 60 U	520	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	2,410	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
Styrene	ug/kg	150	4,300		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
tert-Butylbenzene	ug/kg	0.64	11		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
Toluene	ug/kg	3,700	64,000		< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 70 U	< 60 U	< 60 U	920	< 60 U	< 60 U [70 U]	< 60 U	< 60 U [60 U]
Xylene (total)	ug/kg	280	5,000		< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	5,230	< 100 U	< 100 U [100 U]	< 100 U	< 100 U [100 U]

Table 3
Soil Analytical Results
Joslyn-Wesbrook South Parcel
RACER Trust Pontiac North Campus



Chemical Name	Units	Residential Joslyn SSVIAC BASE	NR Josyn SSVIAC <50k SOG	Location ID	JS-MW-27	JS-MW-28	JS-MW-28	JS-MW-29	JS-MW-29	JS-MW-29	JS-MW-30	JS-SB-31	JS-SB-31	JS-SB-31	JS-SB-31	JS-SB-31	JS-SB-31	
				Date Collected	12/6/2021	12/3/2021	12/3/2021	12/7/2021	12/7/2021	12/7/2021	12/7/2021	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022
				Start Depth (ft. bgs)	13.5	5.25	17.5	7	9	16	4.5	1	3	5	7	9	11	
				End Depth (ft. bgs)	14.5	6.25	18.5	8	10	17	5.5	2	4	6	8	10	12	
VOCs																		
1,1-Dichloroethane	ug/kg	2.6	74		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	
1,2,3-Trimethylbenzene	ug/kg	270	4,800		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	870	
1,2,4-Trimethylbenzene	ug/kg	150	2,600		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	470	
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	0.07	2.1		< 20 UM	< 30 UM	< 30 UM	< 20 UM	< 20 UM [30 UM]	< 30 UM [20 UM]	< 30 UM	< 20 UM	< 20 UM	< 20 UM	< 20 UM	< 20 UM	< 20 UM	< 20 UM
1,2-Dichloroethane	ug/kg	0.8	23		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	480	< 60 U
1,3,5-Trimethylbenzene	ug/kg	100	1,800		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	31,000	370,000		< 820 U	< 1,100 U	< 960 U	< 920 U	< 890 U [960 U]	< 1,000 U [900 U]	< 1,100 U	< 830 U	< 890 U	< 920 U	< 860 U	< 880 U	< 880 U	< 880 U
2-Methylnaphthalene	ug/kg	1,700	30,000		< 100 U	< 100 U	< 100 U	500	< 100 U [100 U]	< 100 U [100 U]	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
2-Phenylbutane (sec-Butylbenzene)	ug/kg	3,800	49,000		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	3,300	150,000		< 3,000 U	< 4,000 U	< 3,000 U	< 3,000 U	< 3,000 U [3,000 U]	< 3,000 U [3,000 U]	< 4,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U
Acetone	ug/kg	260,000	3,100,000		< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U [1,000 U]	< 1,000 U [1,000 U]	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U
Benzene	ug/kg	1.7	47		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	280	1,000
Ethylbenzene	ug/kg	12	340		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	1,090
Isopropyl benzene	ug/kg	3.8	110		< 300 U	< 400 U	< 300 U	< 300 U	< 300 U [300 U]	< 300 U [300 U]	< 400 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U
Methyl tert butyl ether (MTBE)	ug/kg	74	2,100		< 200 U	< 300 U	< 300 U	< 200 U	< 200 U [300U]	< 300 U [200 U]	< 300 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U
Naphthalene	ug/kg	67	1,900		< 300 U	< 400 U	< 300 U	400	< 300 U [300 U]	< 300 U [300 U]	< 400 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U
N-Butylbenzene	ug/kg	550	9,800		< 50 U	< 70 U	< 60 U	500	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U
N-Propylbenzene	ug/kg	1,800	21,000		< 50 U	< 70 U	< 60 U	1,200	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	310	< 60 U	710
Styrene	ug/kg	150	4,300		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U
tert-Butylbenzene	ug/kg	0.64	11		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U
Toluene	ug/kg	3,700	64,000		< 50 U	< 70 U	< 60 U	< 60 U	< 60 U [60 U]	< 70 U [60 U]	< 70 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	260
Xylene (total)	ug/kg	280	5,000		< 100 U	< 100 U	< 100 U	< 100 U	< 100 U [100 U]	< 100 U [100 U]	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	200

Table 3
Soil Analytical Results
Joslyn-Wesbrook South Parcel
RACER Trust Pontiac North Campus



Chemical Name	Units	Residential Joslyn SSVIAC BASE	NR Josyn SSVIAC <50k SOG	Location ID	JS-SB-31A	JS-SB-31A	JS-SB-32	JS-SB-32	JS-SB-32	JS-SB-32	JS-SB-32	JS-SB-32	JS-SB-32	JS-SB-32	JS-SB-32	JS-SB-33	JS-SB-33
				Date Collected	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022
				Start Depth (ft. bgs)	12	13	1	3	5	7	9	10	11	12	13	1	3
				End Depth (ft. bgs)	13	14	2	4	6	8	10	11	12	13	14	2	4
VOCs																	
1,1-Dichloroethane	ug/kg	2.6	74		< 60 U	< 60 U	< 50 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 600 UY	< 600 UY	< 600 UY [< 60 U]	< 60 U	< 60 U
1,2,3-Trimethylbenzene	ug/kg	270	4,800		1,670	250	< 50 U	< 60 U	< 60 U	910	7,270	31,300 Y	21,300 Y	4,000 Y [3,210]	< 60 U	< 60 U	
1,2,4-Trimethylbenzene	ug/kg	150	2,600		7,830	170	< 50 U	< 60 U	< 60 U	3,280	25,260	124,100 Y	79,200 Y	13,600 Y [10,750]	< 60 U	< 60 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	0.07	2.1		< 30 UM	< 20 UM	< 20 UM	< 30 UM	< 20 UM	< 20 UM	< 20 UM	< 200 UYM	< 200 UYM	< 200 UYM [< 20 UM]	< 20 UM	< 20 UM	
1,2-Dichloroethane	ug/kg	0.8	23		< 60 U	< 60 U	< 50 U	< 60 U	< 60 U	< 60 U	< 60 U	< 600 UY	< 600 UY	< 600 UY [< 60 U]	< 60 U	< 60 U	
1,3,5-Trimethylbenzene	ug/kg	100	1,800		3,420	120	< 50 U	< 60 U	< 60 U	350	1,270	24,100 Y	8,300 Y	< 600 UY [410]	< 60 U	< 60 U	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	31,000	370,000		< 950 U	< 920 U	< 770 U	< 940 U	< 920 U	< 860 U	< 920 U	< 910 U	< 9,100 UY	< 8,900 UY	< 9,300 UY [< 930 U]	< 860 U	< 860 U
2-Methylnaphthalene	ug/kg	1,700	30,000		1,100	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	600	3,400	18,000 Y	9,000 Y	2,000 Y [1,200]	< 100 U	< 100 U
2-Phenylbutane (sec-Butylbenzene)	ug/kg	3,800	49,000		230	< 60 U	< 50 U	< 60 U	< 60 U	< 60 U	90	660	3,500 Y	1,700 Y	< 600 UY [130]	< 60 U	< 60 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	3,300	150,000		< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 3,000 U	< 30,000 UY	< 30,000 UY	< 30,000 UY [< 3,000 U]	< 3,000 U	< 3,000 U
Acetone	ug/kg	260,000	3,100,000		< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 1,000 U	< 10,000 UY	< 10,000 UY	< 10,000 UY [< 1,000 U]	< 1,000 U	< 1,000 U
Benzene	ug/kg	1.7	47		210	150	< 50 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 600 UY	< 600 UY	< 600 UY [< 60 U]	< 60 U	< 60 U
Ethylbenzene	ug/kg	12	340		2,180	240	< 50 U	< 60 U	< 60 U	< 60 U	610	3,150	19,500 Y	19,100 Y	6,300 Y [4,630]	< 60 U	< 60 U
Isopropyl benzene	ug/kg	3.8	110		< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	900	4,000 Y	3,000 Y	< 3,000 UY [400]	< 300 U	< 300 U
Methyl tert butyl ether (MTBE)	ug/kg	74	2,100		< 300 U	< 200 U	< 200 U	< 300 U	< 200 U	< 200 U	< 200 U	< 200 U	< 2,000 UY	< 2,000 UY	< 2,000 UY [< 200 U]	< 200 U	< 200 U
Naphthalene	ug/kg	67	1,900		900	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	800	3,200	9,000 Y	8,000 Y	4,000 Y [2,600]	< 300 U	< 300 U
N-Butylbenzene	ug/kg	550	9,800		1,810	< 60 U	< 50 U	< 60 U	< 60 U	< 60 U	360	3,390	20,200 Y	8,900 Y	800 Y [660]	< 60 U	< 60 U
N-Propylbenzene	ug/kg	1,800	21,000		2,010	130	< 50 U	< 60 U	< 60 U	< 60 U	1,220	5,860	25,300 Y	17,400 Y	2,600 Y [2,150]	< 60 U	< 60 U
Styrene	ug/kg	150	4,300		< 60 U	< 60 U	< 50 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 600 UY	< 600 UY	< 600 UY [< 60 U]	< 60 U	< 60 U
tert-Butylbenzene	ug/kg	0.64	11		< 60 U	< 60 U	< 50 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 600 UY	< 600 UY	< 600 UY [< 60 U]	< 60 U	< 60 U
Toluene	ug/kg	3,700	64,000		70	< 60 U	< 50 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 600 UY	< 600 UY	< 600 UY [< 60 U]	< 60 U	< 60 U
Xylene (total)	ug/kg	280	5,000		2,390	300	< 100 U	< 100 U	< 100 U	< 100 U	1,500	6,290	34,000 Y	24,000 Y	9,000 Y [6,370]	< 100 U	< 100 U

Table 3
Soil Analytical Results
Joslyn-Wesbrook South Parcel
RACER Trust Pontiac North Campus

Chemical Name	Units	Residential Joslyn SSVIAC BASE	NR Josyn SSVIAC <50k SOG	Location ID	JS-SB-33	JS-SB-33	JS-SB-33	JS-SB-33	JS-SB-33	JS-SB-33
				Date Collected	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022
				Start Depth (ft. bgs)	5	7	9	10	11	12
				End Depth (ft. bgs)	6	8	10	11	12	13
VOCs										
1,1-Dichloroethane	ug/kg	2.6	74		< 60 U	< 60 U	< 60 U	< 1,000 UY [700 UY]	< 1,000 UY	< 60 U [60 U]
1,2,3-Trimethylbenzene	ug/kg	270	4,800		< 60 U	< 60 U	< 60 U	33,000 Y [4,700 Y]	47,000 Y	1,340 [980]
1,2,4-Trimethylbenzene	ug/kg	150	2,600		< 60 U	< 60 U	140	137,000 Y [20,800 Y]	188,000 Y	4,400 [5,720]
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	0.07	2.1		< 20 UM	< 20 UM	< 20 UM	< 500 UYM [300 UYM]	< 500 UYM	< 20 UM [20 UM]
1,2-Dichloroethane	ug/kg	0.8	23		< 60 U	< 60 U	< 60 U	< 1,000 UY [700 UY]	< 1,000 UY	< 60 U [60 U]
1,3,5-Trimethylbenzene	ug/kg	100	1,800		< 60 U	< 60 U	< 60 U	27,000 Y [1,200 Y]	26,000 Y	160 [250]
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	31,000	370,000		< 920 U	< 890 U	< 930 U	< 20,000 UY [10,000 UY]	< 19,000 UY	< 900 U [930 U]
2-Methylnaphthalene	ug/kg	1,700	30,000		< 100 U	< 100 U	500	16,000 Y [2,000 Y]	28,000 Y	500 [1,100]
2-Phenylbutane (sec-Butylbenzene)	ug/kg	3,800	49,000		< 60 U	< 60 U	< 60 U	4,000 Y [700 UY]	5,000 Y	80 [90]
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	3,300	150,000		< 3,000 U	< 3,000 U	< 3,000 U	< 70,000 UY [30,000 UY]	< 60,000 UY	< 3,000 U [3,000 U]
Acetone	ug/kg	260,000	3,100,000		< 1,000 U	< 1,000 U	< 1,000 U	< 30,000 UY [10,000 UY]	< 30,000 UY	< 1,000 U [1,000 U]
Benzene	ug/kg	1.7	47		< 60 U	< 60 U	< 60 U	< 1,000 UY [700 UY]	< 1,000 UY	< 60 U [60 U]
Ethylbenzene	ug/kg	12	340		< 60 U	< 60 U	< 60 U	22,000 Y [3,700 Y]	33,000 Y	1,940 [1,780]
Isopropyl benzene	ug/kg	3.8	110		< 300 U	< 300 U	< 300 U	< 7,000 UY [3,000 UY]	7,000 Y	< 300 U [300 U]
Methyl tert butyl ether (MTBE)	ug/kg	74	2,100		< 200 U	< 200 U	< 200 U	< 5,000 UY [3,000 UY]	< 5,000 UY	< 200 U [200 U]
Naphthalene	ug/kg	67	1,900		< 300 U	< 300 U	< 300 U	10,000 Y [3,000 UY]	15,000 Y	900 [1,500]
N-Butylbenzene	ug/kg	550	9,800		< 60 U	< 60 U	150	21,000 Y [2,100 Y]	25,000 Y	270 [360]
N-Propylbenzene	ug/kg	1,800	21,000		< 60 U	< 60 U	< 60 U	27,000 Y [3,800 Y]	38,000 Y	1,230 [1,400]
Styrene	ug/kg	150	4,300		< 60 U	< 60 U	< 60 U	< 1,000 UY [700 UY]	< 1,000 UY	< 60 U [60 U]
tert-Butylbenzene	ug/kg	0.64	11		< 60 U	< 60 U	< 60 U	< 1,000 UY [700 UY]	< 1,000 UY	< 60 U [60 U]
Toluene	ug/kg	3,700	64,000		< 60 U	< 60 U	< 60 U	< 1,000 UY [700 UY]	< 1,000 UY	< 60 U [60 U]
Xylene (total)	ug/kg	280	5,000		< 100 U	< 100 U	< 100 U	40,000 Y [7,000 Y]	56,000 Y	2,300 [2,900]

Table 3
Soil Analytical Results
Joslyn-Wesbrook South Parcel Investigation
RACER Trust Pontiac North Campus

Notes:

- 1) Criteria listed are from the EGLE Joslyn Site-Specific Criteria Evaluation dated May 3, 2022.
- 2) Nonresidential SSVIAC was calculated from the Residential EGLE site-specific criteria.
- 3) Bold values denote exceedance and/or equal to Residential Soil Volatilization to Indoor Air Pathway criteria
- 4) Values in italics denote exceedance and/or equal to Nonresidential Soil Volatilization to Indoor Air Pathway criteria
- 5) Samples were analyzed using USEPA Method 8260
- 6) Duplicate analyses are presented in brackets

Abbreviations:

<	Not detected above the laboratory reporting limit
ug/kg	Micrograms per kilogram
ft.	feet
bgs	below ground surface
E	Concentration exceeds calibration range
M	Result reported to MDL not RDL
U	Compound was analyzed for but not detected. The associated value is the compound quantitation limit.
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
NR	Nonresidential
RES	Residential
SOG	Slab-On-Grade scenario
SSVIAC	Site-specific volatilization to indoor air criteria
VOCs	Volatile organic compounds
<50k	Less than 50,000 square feet

Well	Gauging	Analyte	Primary Function
		VOCs	
JS-MW-03	Q	NM	Gauging only to assist with groundwater elevation contour
JS-MW-04	Q	SA	Western property boundary monitoring well to monitor for potential migration of VOC impacted groundwater
JS-MW-05	Q	Q	Source area monitoring well to monitor concentrations and stability of the VOC impacted groundwater
JS-MW-06	Q	Q	Eastern property boundary monitoring well to monitor for potential migration of VOC impacted groundwater
JS-MW-07	Q	NM	Gauging only to assist with groundwater elevation contour
JS-MW-09	Q	Q	Source area monitoring well to monitor concentrations and stability of the VOC impacted groundwater
JS-MW-10	Q	Q	Southern property boundary monitoring well to monitor for potential migration of VOC impacted groundwater
JS-MW-11	Q	SA	Southern property boundary monitoring well to monitor for potential migration of VOC impacted groundwater
JS-MW-16	Q	Q	Eastern property boundary monitoring well to monitor for potential migration of VOC impacted groundwater
JS-MW-19	Q	Q	Eastern property boundary monitoring well to monitor for potential migration of VOC impacted groundwater
JS-MW-20	Q	SA	Downgradient delineation monitoring well used to define groundwater VOC impacts to the south.
JS-MW-21	Q	SA	Downgradient delineation monitoring well used to define groundwater VOC impacts to the south.
JS-MW-22	Q	NM	Downgradient delineation monitoring well used to define groundwater VOC impacts to the south. Used for gauging to assist with the development of groundwater contours.
JS-MW-23	Q	Q	Off-Site monitoring well used to define and monitor the off-site VOC impacted groundwater to the south.
JS-MW-24	Q	SA	Off-Site delineation monitoring well to define groundwater VOC impacts to the south.
JS-MW-25	Q	NM	Off-Site delineation monitoring well to define groundwater VOC impacts to the south. Used for gauging to assist with the development of groundwater contours.
JS-MW-26	Q	SA	Off-Site delineation monitoring well to define groundwater VOC impacts to the south.
JS-MW-27	Q	Q	Western property boundary monitoring well to monitor for potential migration of VOC impacted groundwater
JS-MW-28	Q	NM	Gauging only to assist with groundwater elevation contour
JS-MW-29	Q	Q	Downgradient monitoring well used to define VOC groundwater impacts to the south.
JS-MW-30	Q	Q	Off-Site delineation monitoring well to define groundwater VOC impacts to the south.

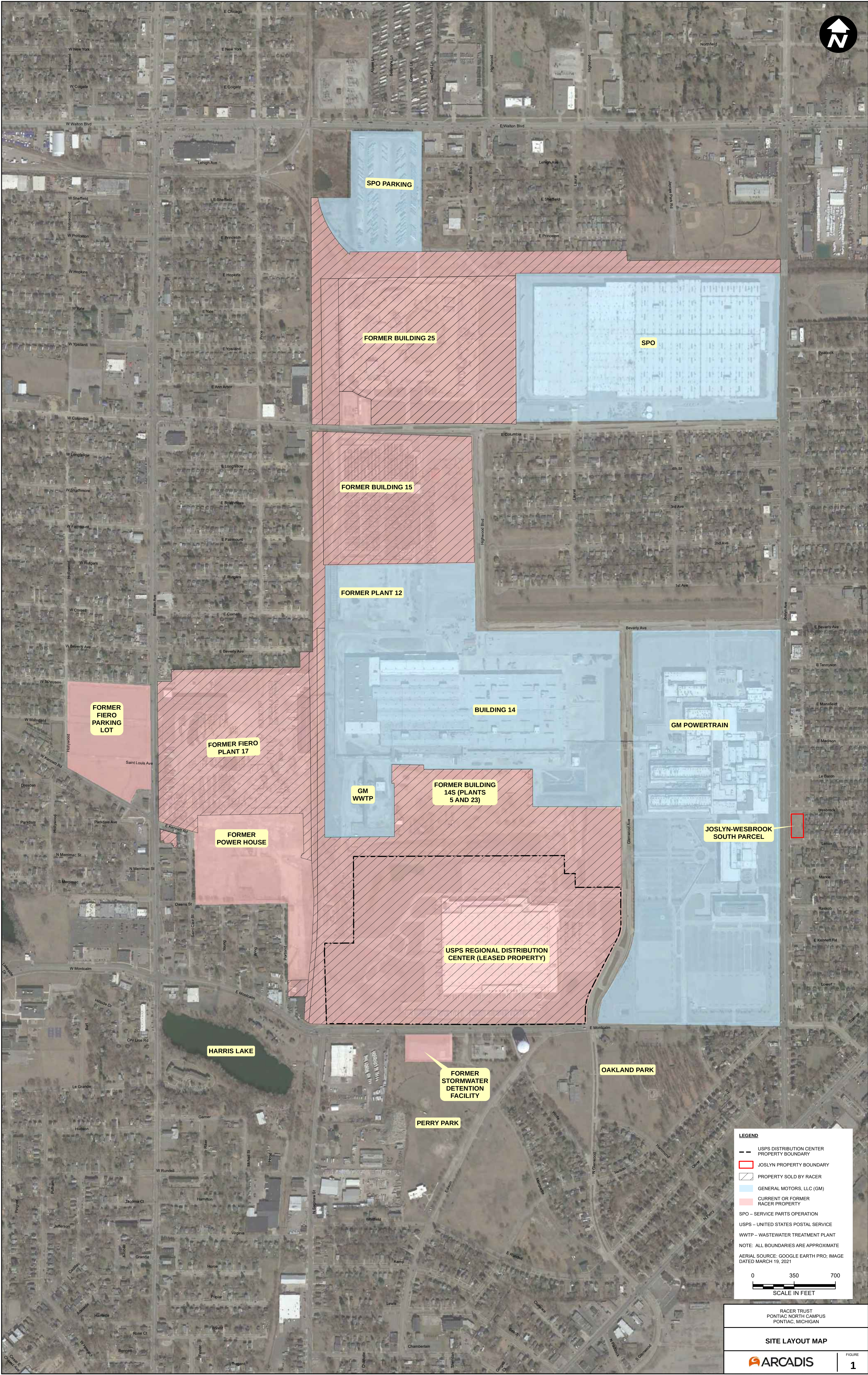
Notes:

Semi-annual wells will alternate monitoring between second quarter (2Q) and fourth quarter (4Q).

Q = Quarterly

SA = Semi-annual (2Q and 4Q)

Figures



-  USPS DISTRIBUTION CENTER
PROPERTY BOUNDARY
-  JOSLYN PROPERTY BOUNDARY
-  PROPERTY SOLD BY RACER
- GENERAL MOTORS, LLC (GM)
-  CURRENT OR FORMER
RACER PROPERTY

SPO – SERVICE PARTS OPERATION
USPS – UNITED STATES POSTAL SERVICE
WWTP – WASTEWATER TREATMENT PLANT
NOTE: ALL BOUNDARIES ARE APPROXIMATE
AERIAL SOURCE: GOOGLE EARTH PRO; IMAGE
DATED MARCH 19, 2021

A horizontal scale bar with vertical tick marks at 0, 350, and 700. The text "SCALE IN FEET" is centered below the bar.

SITE LAYOUT MAP



FIGURE
1

ARCADIS



Wesbrook St

Joslyn Ave

Lenox Ave

LEGEND

- ▲ EXISTING MONITORING WELL
 - ▲ ABANDONED MONITORING WELL
 - SOIL BORING
 - ⊗ MANHOLE
 - ▤ CATCH BASIN
 - WATER
 - GAS
 - TELECOMMUNICATIONS
 - STORM SEWER
 - SANITARY SEWER
 - ▭ HISTORIC SITE STRUCTURES
 - ▭ PROPERTY BOUNDARY
- ft bgs = FEET BELOW GROUND SURFACE



APPROXIMATE LOCATION
OF FORMER GAS STATION
BUILDING (PRESENT 1952 - 1967)

POTENTIAL GAS
STATION CANOPY

APPROXIMATE LOCATION
OF FORMER STRUCTURES
(PRESENT 1949 - 1967)

APPROXIMATE LOCATION
OF FORMER STRUCTURES
(PRESENT 1956 - 1967)

APPROXIMATE LOCATION
OF FORMER STRUCTURES
(PRESENT 1952 - 1967)

▲ JS-SB-01

▲ JS-SB-02

▲ JS-SB-08

▲ JS-MW-07

▲ JS-MW-03

● JS-SB-17

● JS-SB-13

● JS-SB-15

● JS-SB-33

▲ JS-MW-16

▲ JS-MW-09

● JS-SB-18

▲ JS-SB-14

▲ JS-MW-27

▲ JS-SB-32

▲ JS-SB-12

▲ JS-MW-19

▲ JS-MW-10

● JS-SB-31/JS-SB-31A

▲ JS-MW-06

▲ JS-MW-04

▲ JS-MW-05

▲ JS-MW-11

▲ JS-MW-20

▲ JS-MW-29

▲ JS-MW-21

6", ~5.5 ft. bgs

▲ JS-MW-22

12", ~7 ft. bgs

12", ~8 ft. bgs

▲ JS-MW-23

▲ JS-MW-24

▲ JS-MW-28

▲ JS-MW-26

▲ JS-MW-30

▲ JS-MW-25

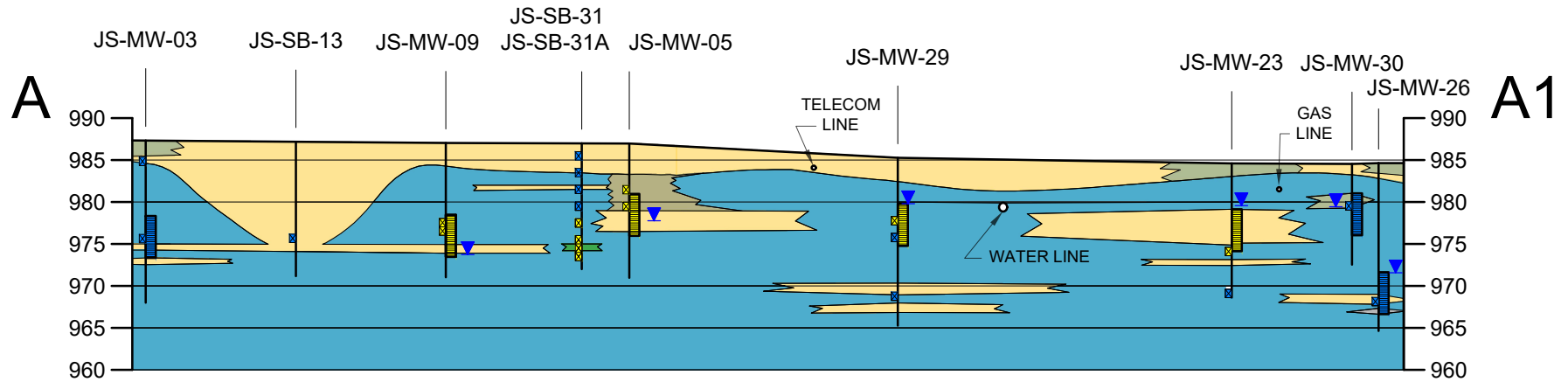
RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

JOSLYN SOUTH PARCEL



FIGURE

1B



LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- SCREEN INTERVAL
- ▼ WATER LEVEL MEASURED IN MONITORING WELLS ON DECEMBER 5, 2022

- SAND
- SANDY CLAY
- SILT
- CLAY
- GRAVEL

SOIL GW SOIL/GROUNDWATER EXCEEDS RESIDENTIAL SSVIAC

SOIL GW SOIL/GROUNDWATER NO EXCEEDANCES OF VOC'S

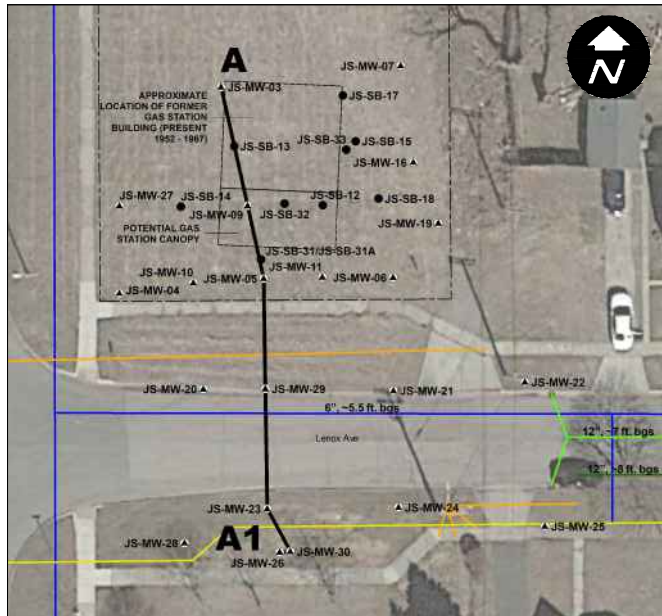
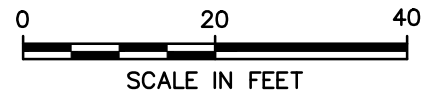
- WATER LINE
- GAS LINE
- TELECOMMUNICATION LINE
- STORM SEWER
- SANITARY SEWER

ft bgs FEET BELOW GROUND SURFACE

NOTE:

UTILITY DEPTHS ARE APPROXIMATE

GW RESULTS BASED ON MOST RECENT AVAILABLE DATA.

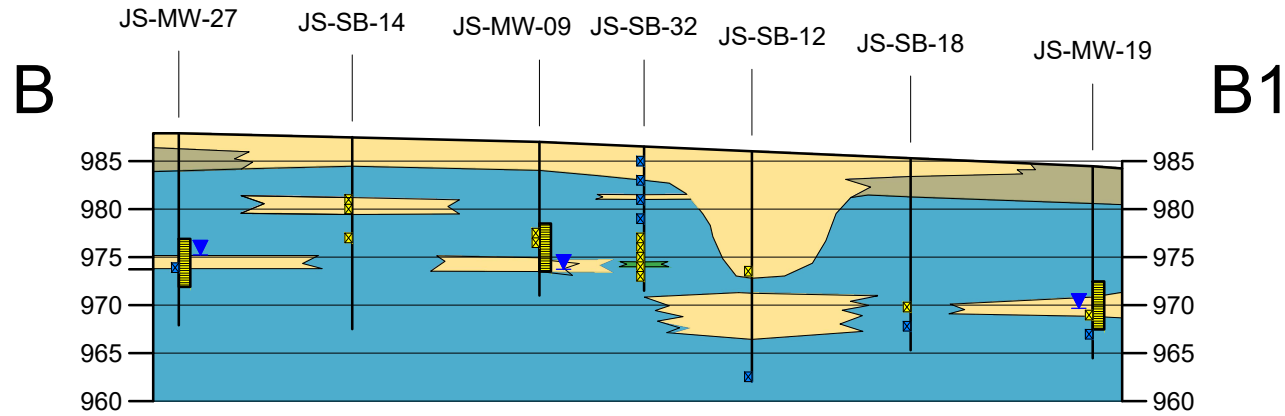


RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

JOSLYN SOUTH PARCEL SECTION A-A1 (NORTH-SOUTH)



FIGURE
2A



LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- SCREEN INTERVAL
- ▼ WATER LEVEL MEASURED IN MONITORING WELLS ON DECEMBER 5, 2022

- SAND
- SANDY CLAY
- SILT
- CLAY
- GRAVEL

SOIL GW SOIL/GROUNDWATER EXCEEDS RESIDENTIAL SSVIAC

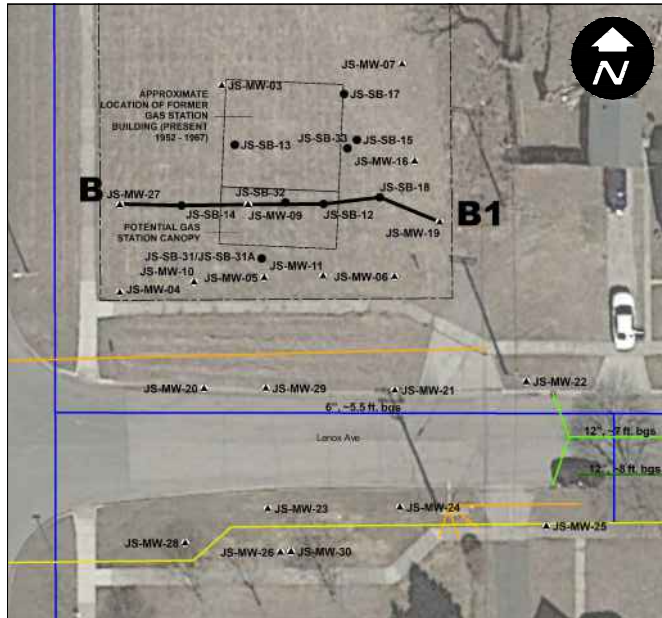
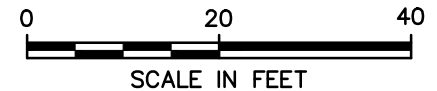
SOIL GW SOIL/GROUNDWATER NO EXCEEDANCES OF VOC'S

- WATER LINE
- GAS LINE
- TELECOMMUNICATION LINE
- STORM SEWER
- SANITARY SEWER

ft bgs FEET BELOW GROUND SURFACE

NOTE:

GW RESULTS BASED ON MOST RECENT AVAILABLE DATA.

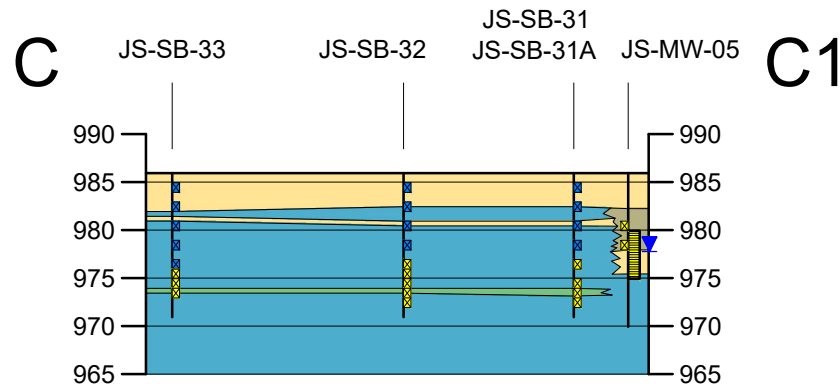


RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

**JOSLYN SOUTH PARCEL
SECTION B-B1 (WEST-EAST)**



FIGURE
2B



LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- SCREEN INTERVAL
- ▼ WATER LEVEL MEASURED IN MONITORING WELLS ON DECEMBER 5, 2022

- SAND
- SANDY CLAY
- SILT
- CLAY
- GRAVEL

SOIL GW SOIL/GROUNDWATER EXCEEDS RESIDENTIAL SSVIAC

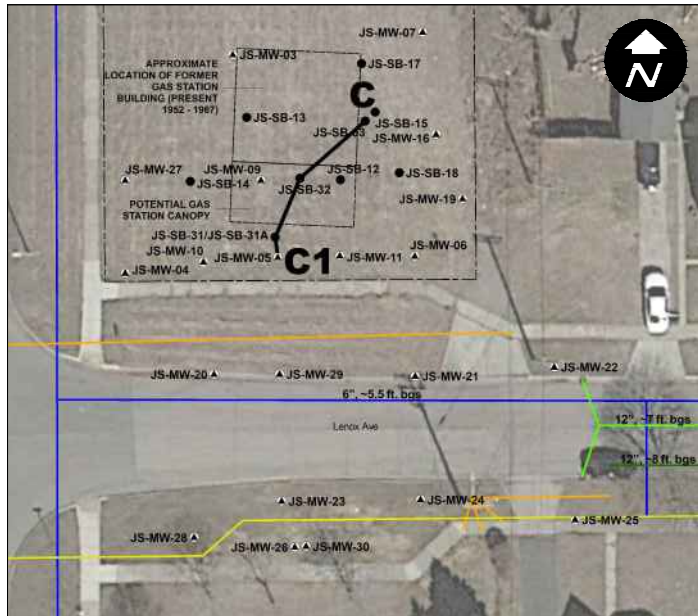
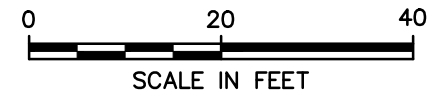
SOIL GW SOIL/GROUNDWATER NO EXCEEDANCES OF VOC'S

- WATER LINE
- GAS LINE
- TELECOMMUNICATION LINE
- STORM SEWER
- SANITARY SEWER

ft bgs FEET BELOW GROUND SURFACE

NOTE:

GW RESULTS BASED ON MOST RECENT AVAILABLE DATA.

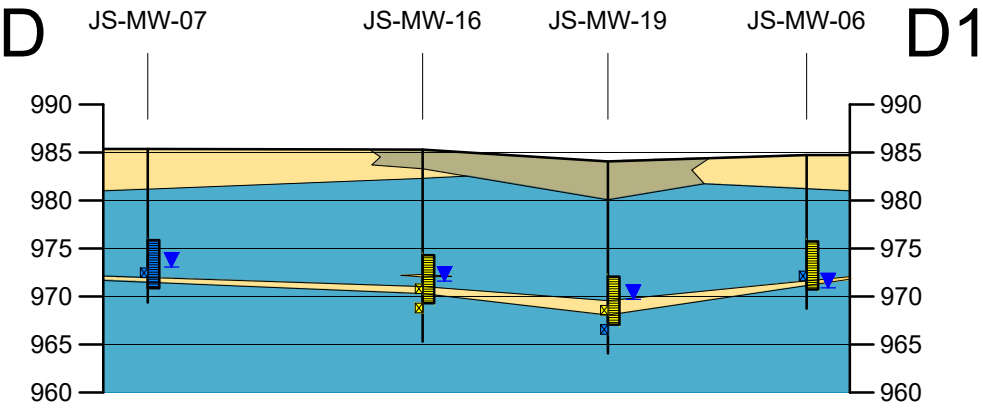


RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

**JOSLYN SOUTH PARCEL
SECTION C-C1 (NORTHEAST-SOUTHWEST)**

ARCADIS

FIGURE
2C

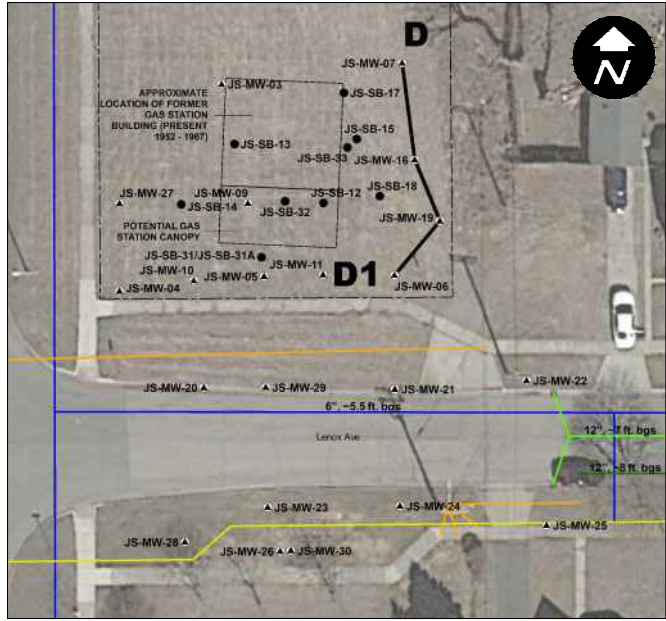
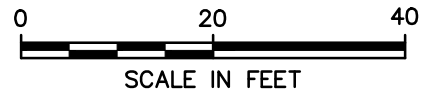


LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- SCREEN INTERVAL
- ▼ WATER LEVEL MEASURED IN MONITORING WELLS ON DECEMBER 5, 2022
- SAND
- SANDY CLAY
- SILT
- CLAY
- GRAVEL
- SOIL GW SOIL/GROUNDWATER EXCEEDS RESIDENTIAL SSVIAC
- SOIL GW SOIL/GROUNDWATER NO EXCEEDANCES OF VOC'S
- WATER LINE
- GAS LINE
- TELECOMMUNICATION LINE
- STORM SEWER
- SANITARY SEWER
- ft bgs FEET BELOW GROUND SURFACE

NOTE:

GW RESULTS BASED ON MOST RECENT AVAILABLE DATA.

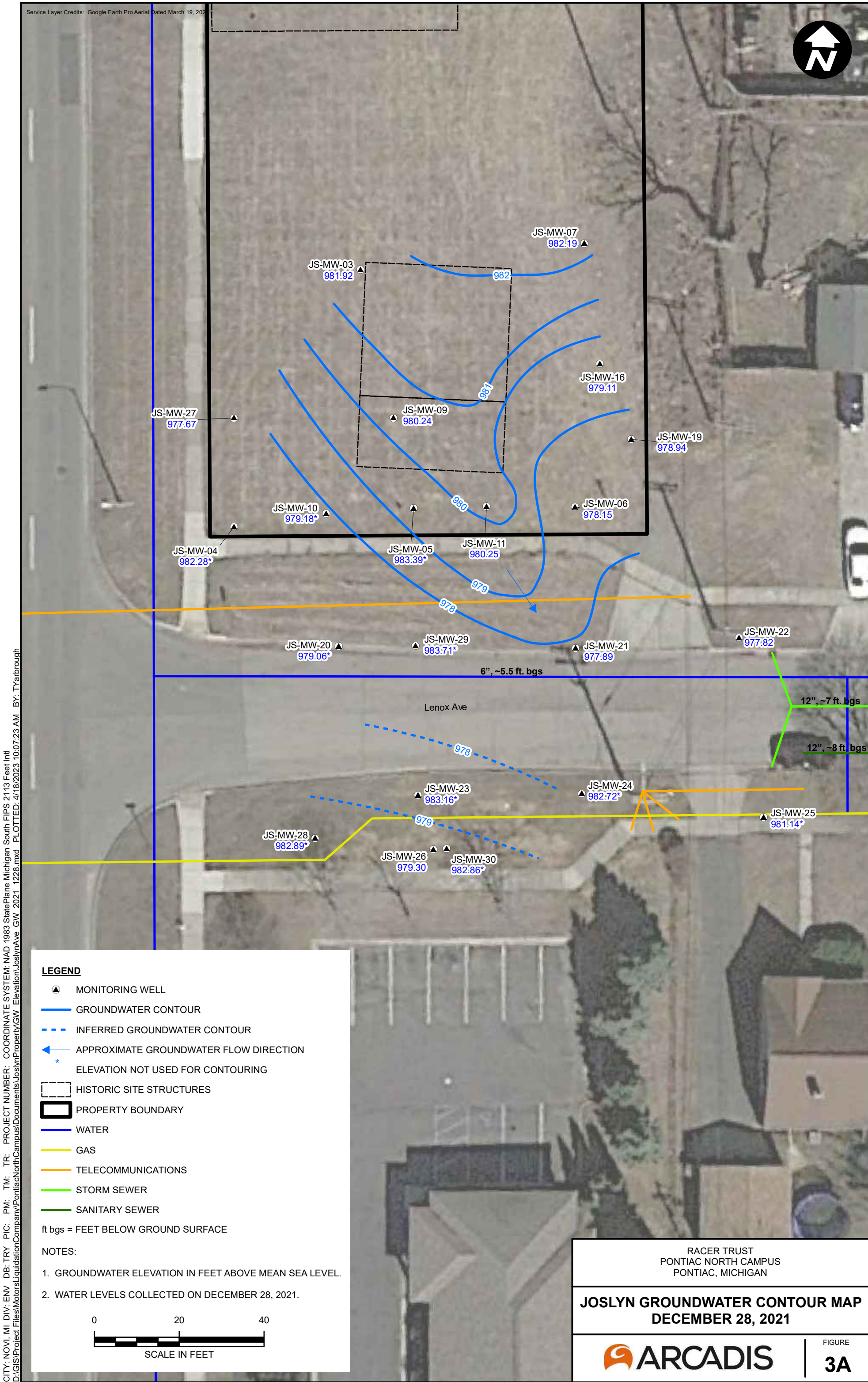


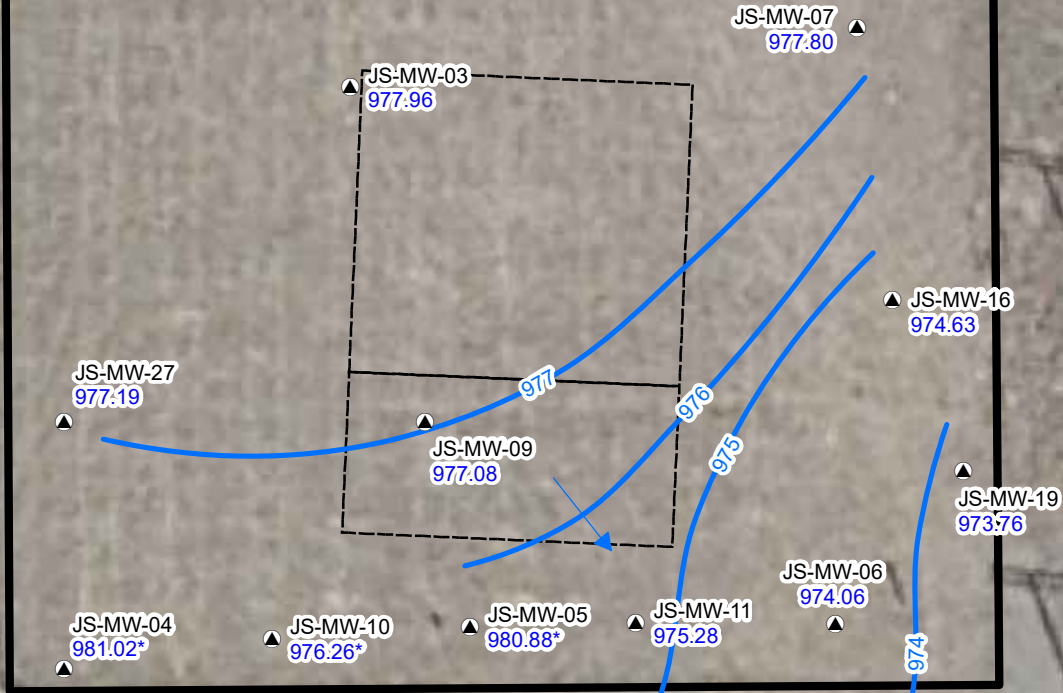
RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

**JOSLYN SOUTH PARCEL
SECTION D-D1 (NORTH-SOUTH)**



FIGURE
2D





LEGEND

- ▲ MONITORING WELL
- GROUNDWATER CONTOUR
- - - INFERRED GROUNDWATER CONTOUR
- ← APPROXIMATE GROUNDWATER FLOW DIRECTION
- * ELEVATION NOT USED FOR CONTOURING
- ▭ HISTORIC SITE STRUCTURES
- ▭ PROPERTY BOUNDARY
- WATER
- GAS
- TELECOMMUNICATIONS
- STORM SEWER
- SANITARY SEWER
- ft bgs = FEET BELOW GROUND SURFACE

NOTES:

- GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL.
- WATER LEVELS COLLECTED ON JUNE 20, 2022.

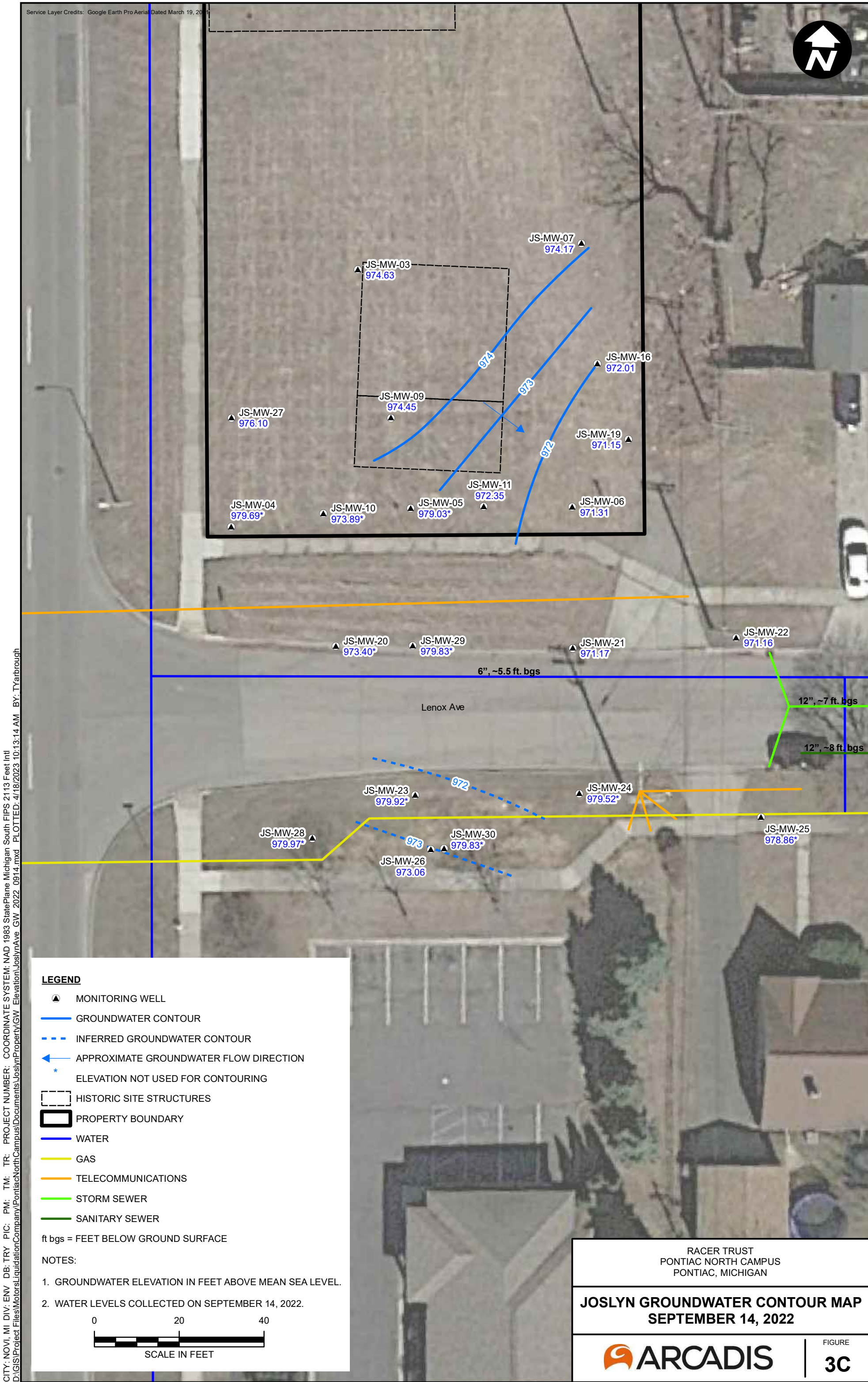


RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

JOSLYN GROUNDWATER CONTOUR MAP
JUNE 20, 2022

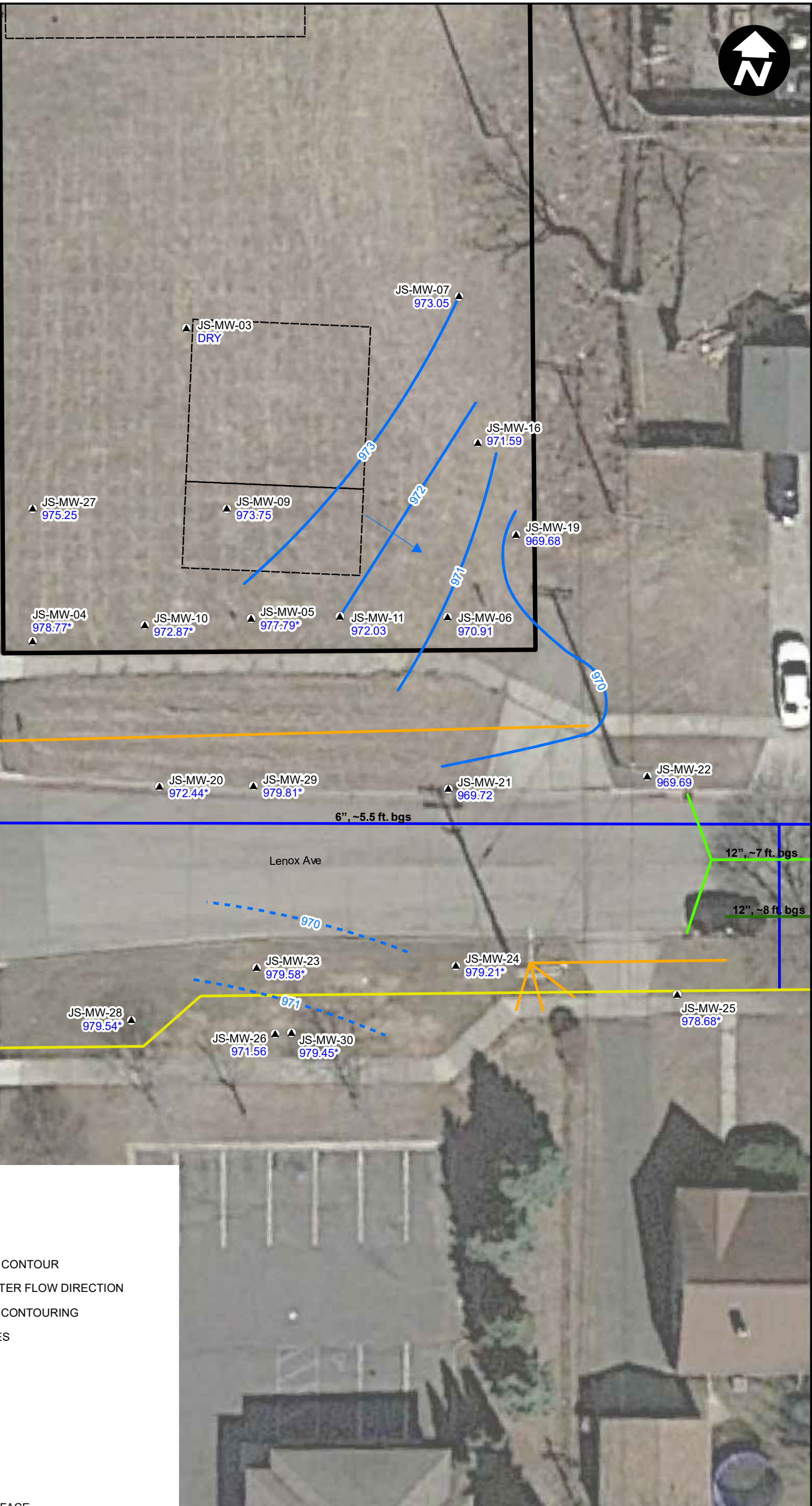


FIGURE
3B





CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\Motors\Liquidation\Company\Pontiac\North Campus\Joslyn\Property\GW Elevation\JoslynAve GW 2022 1205.mxd PLOTTED: 4/18/2023 10:13:58 AM BY: TYarborough



LEGEND

- ▲ MONITORING WELL
- GROUNDWATER CONTOUR
- - - INFERRED GROUNDWATER CONTOUR
- ← APPROXIMATE GROUNDWATER FLOW DIRECTION
- * ELEVATION NOT USED FOR CONTOURING
- ▭ HISTORIC SITE STRUCTURES
- ▭ PROPERTY BOUNDARY
- WATER
- GAS
- TELECOMMUNICATIONS
- STORM SEWER
- SANITARY SEWER
- ft bgs = FEET BELOW GROUND SURFACE

NOTES:

- GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL.
- WATER LEVELS COLLECTED ON DECEMBER 5, 2022.



RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

**JOSLYN GROUNDWATER CONTOUR MAP
DECEMBER 5, 2022**



FIGURE
3D

CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet D:\GIS\Project Files\MotorsLiquidationCompany\PontiacNorthCampusJoslyn_Wesbrook_SouthParcel_GWAnalytical_202301.mxd PLOTTED: 4/19/2023 12:48:48 PM BY: TYarborough

Chemical Name	Groundwater Surface Water Interface	Res Joslyn SSVIAC BASE	NR Joslyn SSVIAC <50k SOG
VOCs			
1,2,3-Trimethylbenzene	--	43	150
1,2,4-Trimethylbenzene	17	25	120
1,2-Dichloroethane	360	1.4	5.1
1,3,5-Trimethylbenzene	45	18	110
2-Methylnaphthalene	19	66	110
Benzene	200	1.0	8.4
Ethylbenzene	18	2.8	28
Isopropyl benzene	28	0.60	6.7
Naphthalene	11	4.2	12
N-Butylbenzene	--	44	360
N-Propylbenzene	--	43	970
Total Xylenes	49	75	410

JS-MW-09			
SI: 8.5-13.5 ft bgs			
Date Collected	12/29/2021	6/22/2022	9/15/2022
VOCs			
1,2,3-Trimethylbenzene	200 E [208 E]	400 Y [400 Y]	210 Y [320 Y]
1,2,4-Trimethylbenzene	801 E [755 E]	1,490 Y [1,480 Y]	810 Y [1,280 Y]
1,2-Dichloroethane	< 1 U [< 1 U]	< 20 UY [< 20 UY]	< 20 UY [< 20 UY]
1,3,5-Trimethylbenzene	233 E [267 E]	450 Y [440 Y]	230 Y [360 Y]
2-Methylnaphthalene	30 [35]	< 100 UY [< 100 UY]	< 100 UY [< 100 UY]
Benzene	438 E [435 E]	580 Y [600 Y]	420 Y [490 Y]
Ethylbenzene	463 E [439 E]	1,610 Y [1,590 Y]	980 Y [1,420 Y]
Isopropyl benzene	26 [27]	< 100 UY [< 100 UY]	20 Y [30 Y]
Naphthalene	137 [146]	300 Y [200 Y]	100 Y [200 Y]
N-Butylbenzene	< 66 UX [< 69 UX]	< 20 UY [< 20 UY]	< 20 UY [< 20 UY]
N-Propylbenzene	92 [95]	190 Y [180 Y]	90 Y [150 Y]
Total Xylenes	1,342 [1,277]	4,510 Y [4,490 Y]	2,920 Y [4,230 Y]

JS-MW-27				
SI: 11-16 ft bgs				
Date Collected	1/6/2022	6/23/2022	9/16/2022	12/6/2022
VOCs				
1,2,3-Trimethylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
1,2,4-Trimethylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichloroethane	3	5	4	3
1,3,5-Trimethylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
2-Methylnaphthalene	< 5 U	< 5 U	< 5 U	< 5 U
Benzene	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
Isopropyl benzene	< 5 U	< 5 U	< 1 U	< 5 U
Naphthalene	< 5 U	< 5 U	< 5 U	< 5 U
N-Butylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
N-Propylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	< 2 U	< 2 U	< 2 U	< 2 U

JS-MW-10				
SI: 10.5-15.5 ft bgs				
Date Collected	12/29/2021	6/22/2022	9/16/2022	12/5/2022
VOCs				
1,2,3-Trimethylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
1,2,4-Trimethylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichloroethane	< 1 U	< 1 U	2	1
1,3,5-Trimethylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
2-Methylnaphthalene	< 5 U	< 5 U	< 5 U	< 5 U
Benzene	16	76	< 1 U	< 1 U
Ethylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
Isopropyl benzene	< 5 U	< 5 U	< 1 U	< 5 U
Naphthalene	< 5 U	< 5 U	< 5 U	< 5 U
N-Butylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
N-Propylbenzene	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	< 2 U	< 2 U	< 2 U	< 2 U

JS-MW-05			
SI: 6-11 ft bgs			
Date Collected	12/28/2021	9/15/2022	12/6/2022
VOCs			
1,2,3-Trimethylbenzene	< 1 U	140 Y	120 Y
1,2,4-Trimethylbenzene	10	210 Y	80 Y
1,2-Dichloroethane	< 1 U	< 10 UY	< 10 UY
1,3,5-Trimethylbenzene	4	70 Y	30 Y
2-Methylnaphthalene	< 5 U	< 50 UY	< 50 UY
Benzene	8	1,880 Y	1,450 Y
Ethylbenzene	6	690 Y	280 Y
Isopropyl benzene	< 5 U	20 Y	< 50 UY
Naphthalene	< 5 U	300 Y	260 Y
N-Butylbenzene	< 2 UX	< 10 UY	< 10 UY
N-Propylbenzene	1	70 Y	< 10 UY
Total Xylenes	9	1,410 Y	730 Y

JS-MW-06		
SI: 9-14 ft bgs		
Date Collected	12/29/2021	6/21/2022
VOCs		
1,2,3-Trimethylbenzene	30 S	1
1,2,4-Trimethylbenzene	513 SE	63
1,2-Dichloroethane	< 1 U	< 1 U
1,3,5-Trimethylbenzene	< 114 USX	< 1 U
2-Methylnaphthalene	6 S	< 5 U
Benzene	19	3
Ethylbenzene	488 SE	69
Isopropyl benzene	26 S	< 5 U
Naphthalene	83	12
N-Butylbenzene	< 22 USX	< 1 U
N-Propylbenzene	84 S	9
Total Xylenes	752	94

JS-MW-16			
SI: 11-16 ft bgs			
Date Collected	12/30/2021	6/22/2022	9/15/2022
VOCs			
1,2,3-Trimethylbenzene	< 1 U	3	5
1,2,4-Trimethylbenzene	2	20	6
1,2-Dichloroethane	1	< 1 U	13
1,3,5-Trimethylbenzene	< 1 U	3	< 1 U
2-Methylnaphthalene	< 5 U	< 5 U	< 5 U
Benzene	< 1 U	2	7
Ethylbenzene	< 1 U	< 1 U	< 1 U
Isopropyl benzene	< 5 U	< 5 U	2
Naphthalene	< 5 U	< 5 U	< 5 U
N-Butylbenzene	< 1 U	< 1 U	< 1 U
N-Propylbenzene	5	13	2
Total Xylenes	< 2 U	8	12

JS-MW-19			
SI: 12-17 ft bgs			
Date Collected	12/30/2021	6/21/2022	9/15/2022
VOCs			
1,2,3-Trimethylbenzene	4	2	< 1 U
1,2,4-Trimethylbenzene	1	< 1 U	< 1 U
1,2-Dichloroethane	< 1 U	< 1 U	< 1 U
1,3,5-Trimethylbenzene	1	< 1 U	< 1 U
2-Methylnaphthalene	< 5 U	< 5 U	< 5 U
Benzene	15	18	5
Ethylbenzene	36	9	< 1 U
Isopropyl benzene	16	11	3
Naphthalene	24	13	< 5 U
N-Butylbenzene	< 1 U	< 1 U	< 1 U
N-Propylbenzene	36	26	7
Total Xylenes	75	32	3

JS-MW-29	
SI: 5.5-10.5 ft bgs	
Date Collected	1/4/2022
VOCs	
1,2,3-Trimethylbenzene	3
1,2,4-Trimethylbenzene	< 1 U
1,2-Dichloroethane	< 1 U
1,3,5-Trimethylbenzene	3
2-Methylnaphthalene	< 5 U
Benzene	< 1 U
Ethylbenzene	4
Isopropyl benzene	< 5 U
Naphthalene	< 5 U
N-Butylbenzene	< 1 U
N-Propylbenzene	5
Total Xylenes	1

JS-MW-23			
SI: 5.5-10.5 ft bgs			
Date Collected	1/5/2022	6/20/2022	9/14/2022
VOCs			
1,2,3-Trimethylbenzene	7	2	3
1,2,4-Trimethylbenzene	2	< 1 U	2
1,2-Dichloroethane	< 1 U	< 1 U	< 1 U
1,3,5-Trimethylbenzene	2	< 1 U	< 1 U
2-Methylnaphthalene	< 5 U	< 5 U	< 5 U
Benzene	2	3	7
Ethylbenzene	9	5	16
Isopropyl benzene	< 5 U	< 5 U	2
Naphthalene	< 5 U	< 5 U	< 5 U
N-Butylbenzene	1	< 1 U	2
N-Propylbenzene	4	3	9
Total Xylenes	15	4	8

LEGEND

MONITORING WELL

MANHOLE

CATCH BASIN

EXCEEDS RESIDENTIAL JOSLYN SSVIAC

NO EXCEEDANCES OF JOSLYN SSVIAC

WATER

GAS

TELECOMMUNICATIONS

STORM SEWER

SANITARY SEWER

HISTORIC SITE STRUCTURES

PROPERTY BOUNDARY

< NOT DETECTED ABOVE THE LABORATORY REPORTING LIMIT

E CONCENTRATION EXCEEDS CALIBRATION RANGE

S SURROGATE RECOVERY OUTSIDE OF CONTROL LIMITS

U COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT

X ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE

Y ELEVATED REPORTING LIMIT DUE TO HIGH TARGET CONCENTRATION

ft bgs FEET BELOW GROUND SURFACE

SI SCREENED INTERVAL

SSVIAC SITE-SPECIFIC VOLATILIZATION TO INDOOR AIR CRITERIA

RES RESIDENTIAL

NR NONRESIDENTIAL

BASE BASEMENT SCENARIO

SOG SLAB-ON-GRADE SCENARIO

<50K LESS THAN 50,000 SQUARE FEET

VOCs VOLATILE ORGANIC COMPOUNDS

NOTES:

1. ALL CONCENTRATIONS ARE PRESENTED IN MICROGRAMS PER LITER (µg/L)

2. DUPLICATE ANALYSES ARE PRESENTED IN BRACKETS

3. CRITERIA LISTED ARE FROM THE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY (EGLE) CLEAN UP CRITERIA REQUIREMENTS TABLE 1: GROUNDWATER: RESIDENTIAL AND NONRESIDENTIAL, PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS, DECEMBER 21, 2020.

4. RESIDENTIAL CRITERIA LISTED ARE FROM THE EGLE JOSLYN SITE-SPECIFIC CRITERIA EVALUATION DATED MAY 3, 2022. NONRESIDENTIAL CRITERIA WERE CALCULATED FROM THE RESIDENTIAL EGLE SITE-SPECIFIC CRITERIA.

AERIAL SOURCE: GOOGLE EARTH PRO; IMAGE DATED MARCH 19, 2021

RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

JOSLYN SOUTH PARCEL
GROUNDWATER ANALYTICAL RESULTS

FIGURE

4

CITY: NOVI, MI DIV: ENV DB: TRY PIC: TM: TR: PROJECT NUMBER: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl D:\GIS\Project Files\MotorsLiquidationCompany\PontiacNorthCampusJoslyn_Wesbrook_SouthParcel_SoilAnalytical_202301.mxd PLOTTED: 4/19/2023 12:52:22 PM BY: TYarborough

JS-SB-33								
Date Collected	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022
Sample Interval (ft. bgs)	1-2	3-4	5-6	7-8	9-10	10-11	11-12	12-13
VOCs								
1,2,3-Trimethylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	33,000 Y [4,700 Y]	47,000 Y	1,340 [980]
1,2,4-Trimethylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	140	137,000 Y [20,800 Y]	188,000 Y	4,400 [5,720]
1,2-Dichloroethane	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 1,000 UY [< 700 UY]	< 1,000 UY	< 60 U [< 60 U]
1,3,5-Trimethylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	27,000 Y [1,200 Y]	26,000 Y	160 [250]
2-Methylnaphthalene	< 100 U	< 100 U	< 100 U	< 100 U	500	16,000 Y [2,000 Y]	28,000 Y	500 [1,100]
2-Phenylbutane (sec-Butylbenzene)	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	4,000 Y [< 700 UY]	5,000 Y	80 [90]
Benzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 1,000 UY [< 700 UY]	< 1,000 UY	< 60 U [< 60 U]
Ethylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	22,000 Y [3,700 Y]	33,000 Y	1,940 [1,780]
Isopropyl benzene	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 7,000 UY [< 3,000 UY]	7,000 Y	< 300 U [< 300 U]
Naphthalene	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	10,000 Y [< 3,000 UY]	15,000 Y	900 [1,500]
N-Butylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	150	21,000 Y [2,100 Y]	25,000 Y	270 [360]
N-Propylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	27,000 Y [3,800 Y]	38,000 Y	1,230 [1,400]
Xylene (total)	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	40,000 Y [7,000 Y]	56,000 Y	2,300 [2,900]

JS-SB-32								
Date Collected	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022
Sample Interval (ft. bgs)	1-2	3-4	5-6	7-8	9-10	10-11	11-12	12-13
VOCs								
1,2,3-Trimethylbenzene	< 50 U	< 60 U	< 60 U	< 60 U	910	7,270	31,300 Y	21,300 Y
1,2,4-Trimethylbenzene	< 50 U	< 60 U	< 60 U	< 60 U	3,280	25,260	124,100 Y	79,200 Y
1,2-Dichloroethane	< 50 U	< 60 U	< 60 U	< 60 U	< 60 U	< 600 UY	< 600 UY	< 600 UY
1,3,5-Trimethylbenzene	< 50 U	< 60 U	< 60 U	< 60 U	350	1,270	24,100 Y	8,300 Y
2-Methylnaphthalene	< 100 U	< 100 U	< 100 U	< 100 U	600	3,400	18,000 Y	9,000 Y
2-Phenylbutane (sec-Butylbenzene)	< 50 U	< 60 U	< 60 U	< 60 U	90	660	3,500 Y	1,700 Y
Benzene	< 50 U	< 60 U	< 60 U	< 60 U	< 60 U	< 600 UY	< 600 UY	< 600 UY
Ethylbenzene	< 50 U	< 60 U	< 60 U	< 60 U	610	3,150	19,500 Y	19,100 Y
Isopropyl benzene	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	900	4,000 Y	3,000 Y
Naphthalene	< 300 U	< 300 U	< 300 U	< 300 U	800	3,200	9,000 Y	8,000 Y
N-Butylbenzene	< 50 U	< 60 U	< 60 U	< 60 U	360	3,390	20,200 Y	8,900 Y
N-Propylbenzene	< 50 U	< 60 U	< 60 U	< 60 U	1,220	5,860	25,300 Y	17,400 Y
Xylene (total)	< 100 U	< 100 U	< 100 U	< 100 U	1,500	6,290	34,000 Y	24,000 Y

JS-MW-09		
Date Collected	4/30/2021	4/30/2021
Sample Interval (ft. bgs)	9-10	10-11
VOCs		
1,2,3-Trimethylbenzene	1,700 Y	2,040
1,2,4-Trimethylbenzene	11,400 Y	5,090
1,2-Dichloroethane	< 600 UY	< 60 U
1,3,5-Trimethylbenzene	< 600 UY	680
2-Methylnaphthalene	1,000 Y	900
2-Phenylbutane (sec-Butylbenzene)	< 600 UY	100
Benzene	< 600 UY	450
Ethylbenzene	2,100 Y	4,770
Isopropyl benzene	< 3,000 UY	< 300 U
Naphthalene	< 3,000 UY	1,600
N-Butylbenzene	800 Y	510
N-Propylbenzene	1,900 Y	1,490
Xylene (total)	3,000 Y	4,600

JS-SB-14		
Date Collected	11/30/2021	11/30/2021
Sample Interval (ft. bgs)	6-8	10-11
VOCs		
1,2,3-Trimethylbenzene	1,200	< 60 U
1,2,4-Trimethylbenzene	4,330	< 60 U
1,2-Dichloroethane	< 60 U	< 60 U
1,3,5-Trimethylbenzene	140	< 60 U
2-Methylnaphthalene	400	< 100 U
2-Phenylbutane (sec-Butylbenzene)	< 60 U	< 60 U
Benzene	120	6,810
Ethylbenzene	2,480	110
Isopropyl benzene	< 300 U	< 300 U
Naphthalene	1,100	< 300 U
N-Butylbenzene	190	< 60 U
N-Propylbenzene	770	< 60 U
Xylene (total)	3,870	< 100 U

JS-SB-31A		
Date Collected	12/9/2022	12/9/2022
Sample Interval (ft. bgs)	12-13	13-14
VOCs		
1,2,3-Trimethylbenzene	1,670	250
1,2,4-Trimethylbenzene	7,830	170
1,2-Dichloroethane	< 60 U	< 60 U
1,3,5-Trimethylbenzene	3,420	120
2-Methylnaphthalene	1,100	< 100 U
2-Phenylbutane (sec-Butylbenzene)	230	< 60 U
Benzene	210	150
Ethylbenzene	2,180	240
Isopropyl benzene	< 300 U	< 300 U
Naphthalene	900	< 300 U
N-Butylbenzene	1,810	< 60 U
N-Propylbenzene	2,010	130
Xylene (total)	2,390	300

Chemical Name	Residential Joslyn SSVIAC BASE	NR Josyn SSVIAC <50k SOG
VOCs		
1,2,3-Trimethylbenzene	270	4,800
1,2,4-Trimethylbenzene	150	2,600
1,2-Dichloroethane	0.8	23
1,3,5-Trimethylbenzene	100	1,800
2-Methylnaphthalene	1,700	30,000
2-Phenylbutane (sec-Butylbenzene)	3,800	49,000
Benzene	1.7	47
Ethylbenzene	12	340
Isopropyl benzene	3.8	110
Naphthalene	67	1,900
N-Butylbenzene	550	9,800
N-Propylbenzene	1,800	21,000
Xylene (total)	280	5,000

JS-SB-31						
Date Collected	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022
Sample Interval (ft. bgs)	1-2	3-4	5-6	7-8	9-10	11-12
VOCs						
1,2,3-Trimethylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	870
1,2,4-Trimethylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	470
1,2-Dichloroethane	< 60 U	< 60 U	< 60 U	< 60 U	480	< 60 U
1,3,5-Trimethylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U
2-Methylnaphthalene	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
2-Phenylbutane (sec-Butylbenzene)	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U
Benzene	< 60 U	< 60 U	< 60 U	< 60 U	280	1,000
Ethylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	1,090
Isopropyl benzene	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U
Naphthalene	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U	< 300 U
N-Butylbenzene	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U
N-Propylbenzene	< 60 U	< 60 U	< 60 U	310	< 60 U	710
Xylene (total)	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	200

JS-MW-23		
Date Collected	12/1/2021	12/1/2021
Sample Interval (ft. bgs)	10-11	15-16
VOCs		
1,2,3-Trimethylbenzene	2,600	< 60 U
1,2,4-Trimethylbenzene	1,360	< 60 U
1,2-Dichloroethane	< 60 U	< 60 U
1,3,5-Trimethylbenzene	590	< 60 U
2-Methylnaphthalene	2,300	< 100 U
2-Phenylbutane (sec-Butylbenzene)	230	< 60 U
Benzene	170	< 60 U
Ethylbenzene	2,520	< 60 U
Isopropyl benzene	400	< 300 U
Naphthalene	1,500	< 300 U
N-Butylbenzene	1,000	< 60 U
N-Propylbenzene	2,410	< 60 U
Xylene (total)	5,230	< 100 U

JS-SB-15		
Date Collected	12/2/2021	12/2/2021
Sample Interval (ft. bgs)	12-13	16-17
VOCs		
1,2,3-Trimethylbenzene	11,050	< 60 U
1,2,4-Trimethylbenzene	35,590 E	< 60 U
1,2-Dichloroethane	< 70 U	< 60 U
1,3,5-Trimethylbenzene	2,950	< 60 U
2-Methylnaphthalene	6,400	< 100 U
2-Phenylbutane (sec-Butylbenzene)	1,250	< 60 U
Benzene	< 70 U	< 60 U
Ethylbenzene	7,490	< 60 U
Isopropyl benzene	1,800	< 300 U
Naphthalene	4,700	< 300 U
N-Butylbenzene	4,780	< 60 U
N-Propylbenzene	10,020	< 60 U
Xylene (total)	11,620	< 100 U

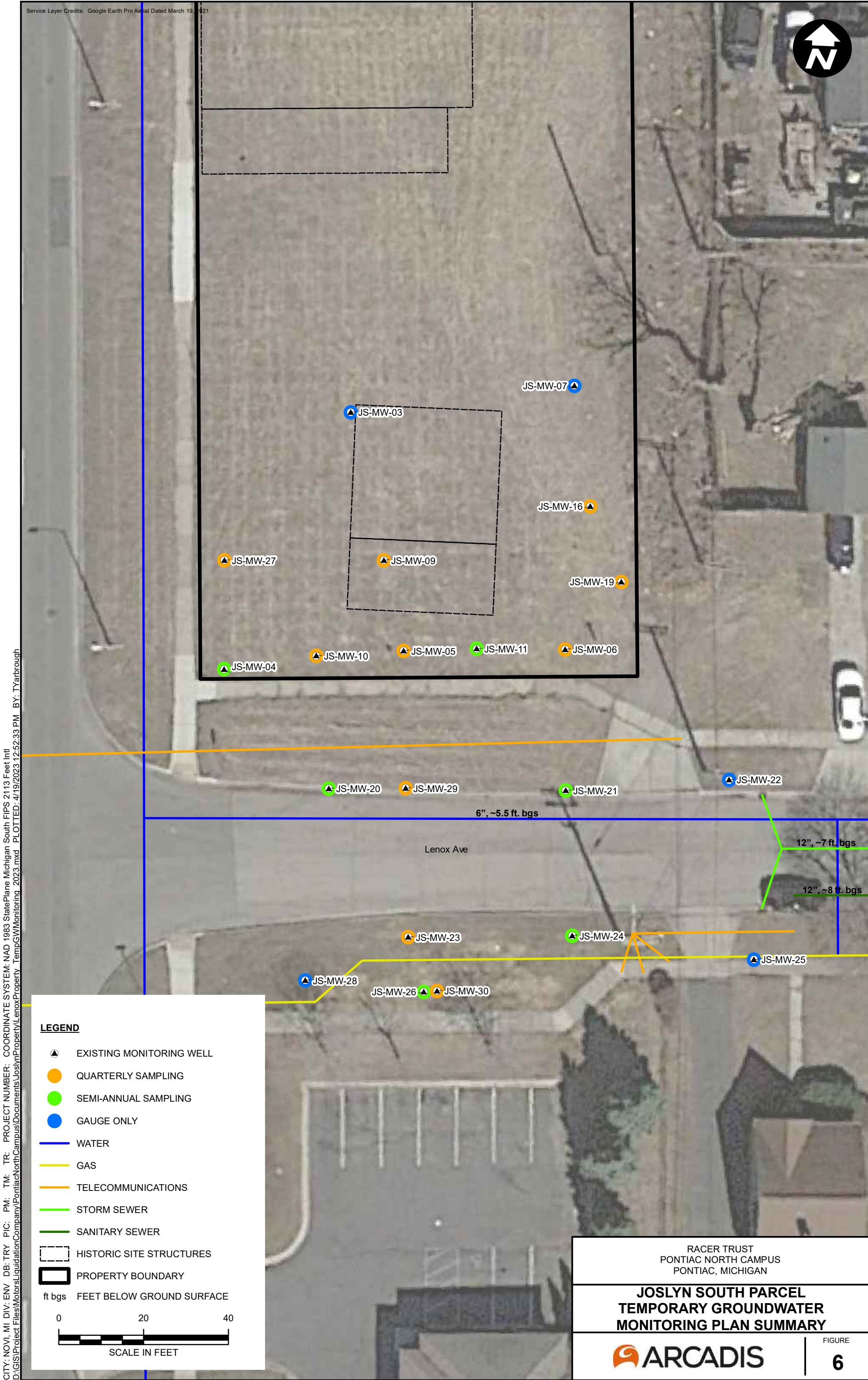
JS-SB-18		
Date Collected	12/6/2021	12/6/2021
Sample Interval (ft. bgs)	15-16	17-18
VOCs		
1,2,3-Trimethylbenzene	< 60 U	< 60 U
1,2,4-Trimethylbenzene	< 60 U	< 60 U
1,2-Dichloroethane	< 60 U	< 60 U
1,3,5-Trimethylbenzene	< 60 U	< 60 U
2-Methylnaphthalene	< 100 U	< 100 U
2-Phenylbutane (sec-Butylbenzene)	< 60 U	< 60 U
Benzene	6,400	< 60 U
Ethylbenzene	< 60 U	< 60 U
Isopropyl benzene	< 300 U	< 300 U
Naphthalene	< 300 U	< 300 U
N-Butylbenzene	< 60 U	< 60 U
N-Propylbenzene	< 60 U	< 60 U
Xylene (total)	< 100 U	< 100 U

JS-MW-16		
Date Collected	12/6/2021	12/6/2021
Sample Interval (ft. bgs)	14-15	16-17
VOCs		
1,2,3-Trimethylbenzene	< 60 U	< 60 U
1,2,4-Trimethylbenzene	< 60 U	< 60 U
1,2-Dichloroethane	< 60 U	150
1,3,5-Trimethylbenzene	< 60 U	< 60 U
2-Methylnaphthalene	300	< 100 U
2-Phenylbutane (sec-Butylbenzene)	130	< 60 U
Benzene	< 60 U	< 60 U
Ethylbenzene	60	< 60 U
Isopropyl benzene	300	< 300 U
Naphthalene	1,400	< 300 U
N-Butylbenzene	300	< 60 U
N-Propylbenzene	1,900	< 60 U
Xylene (total)	200	< 100 U

JS-MW-19		
Date Collected	12/2/2021	12/2/2021
Sample Interval (ft. bgs)	15-16	17-18
VOCs		
1,2,3-Trimethylbenzene	< 60 U	< 60 U
1,2,4-Trimethylbenzene	< 60 U	< 60 U
1,2-Dichloroethane	< 60 U	< 60 U
1,3,5-Trimethylbenzene	< 60 U	< 60 U
2-Methylnaphthalene	< 100 U	< 100 U
2-Phenylbutane (sec-Butylbenzene)	< 60 U	< 60 U
Benzene	< 60 U	< 60 U
Ethylbenzene	< 60 U	< 60 U
Isopropyl benzene	< 300 U	< 300 U
Naphthalene	400	< 300 U
N-Butylbenzene	< 60 U	< 60 U
N-Propylbenzene	520	< 60 U
Xylene (total)	< 100 U	< 100 U

JS-SB-12		
Date Collected	11/30/2021	11/30/2021
Sample Interval (ft. bgs)	12-13	23-24
VOCs		
1,2,3-Trimethylbenzene	6,350	< 60 U
1,2,4-Trimethylbenzene	22,340 E	< 60 U
1,2-Dichloroethane	< 60 U	< 60 U
1,3,5-Trimethylbenzene	6,360	< 60 U
2-Methylnaphthalene	2,600	< 100 U
2-Phenylbutane (sec-Butylbenzene)	380	< 60 U
Benzene	< 60 U	< 60 U
Ethylbenzene	9,760	< 60 U
Isopropyl benzene	800	< 300 U
Naphthalene	3,400	< 300 U
N-Butylbenzene	2,300	< 60 U
N-Propylbenzene	4,460	< 60 U
Xylene (total)	35,300	< 100 U

JS-MW-05		
Date Collected	4/28/2021	4/28/2021
Sample Interval (ft. bgs)	5-6	7-8
VOCs		
1,2,3-Trimethylbenzene	6,900 Y	31,000 Y
1,2,4-Trimethylbenzene	6,700 Y	136,000 Y
1,2-Dichloroethane	< 600 UY	< 3,000 UY
1,3,5-Trimethylbenzene	6,000 Y	48,000 Y
2-Methylnaphthalene	12,000 Y	40,000 Y
2-Phenylbutane (sec-Butylbenzene)	< 600 UY	< 3,000 UY
Benzene	< 600 UY	< 3,000 UY
Ethylbenzene	9,000 Y	48,000 Y



Appendix A

Aerial Photographs



RACER Pontiac North Joslyn Ave Parcels

830 - 898 Joslyn Ave

Pontiac, MI 48340

Inquiry Number: 6130947.8

July 23, 2020

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

07/23/20

Site Name:

RACER Pontiac North Joslyn A
830 - 898 Joslyn Ave
Pontiac, MI 48340
EDR Inquiry # 6130947.8

Client Name:

ARCADIS U.S., Inc.
10559 Citation Drive
Brighton, MI 48116
Contact: Brad Saunders



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1999	1"=500'	Acquisition Date: March 28, 1999	USGS/DOQQ
1997	1"=500'	Flight Date: May 04, 1997	DTE
1987	1"=500'	Flight Date: June 14, 1987	USDA
1983	1"=500'	Flight Date: May 05, 1983	USDA
1976	1"=500'	Flight Date: March 25, 1976	USDA
1972	1"=500'	Flight Date: July 01, 1972	USDA
1967	1"=500'	Flight Date: May 12, 1967	DTE
1956	1"=500'	Flight Date: May 07, 1956	DTE
1952	1"=500'	Flight Date: April 25, 1952	DTE
1949	1"=500'	Flight Date: May 03, 1949	DTE
1940	1"=500'	Flight Date: August 01, 1940	USDA
1937	1"=500'	Flight Date: September 20, 1937	USDA

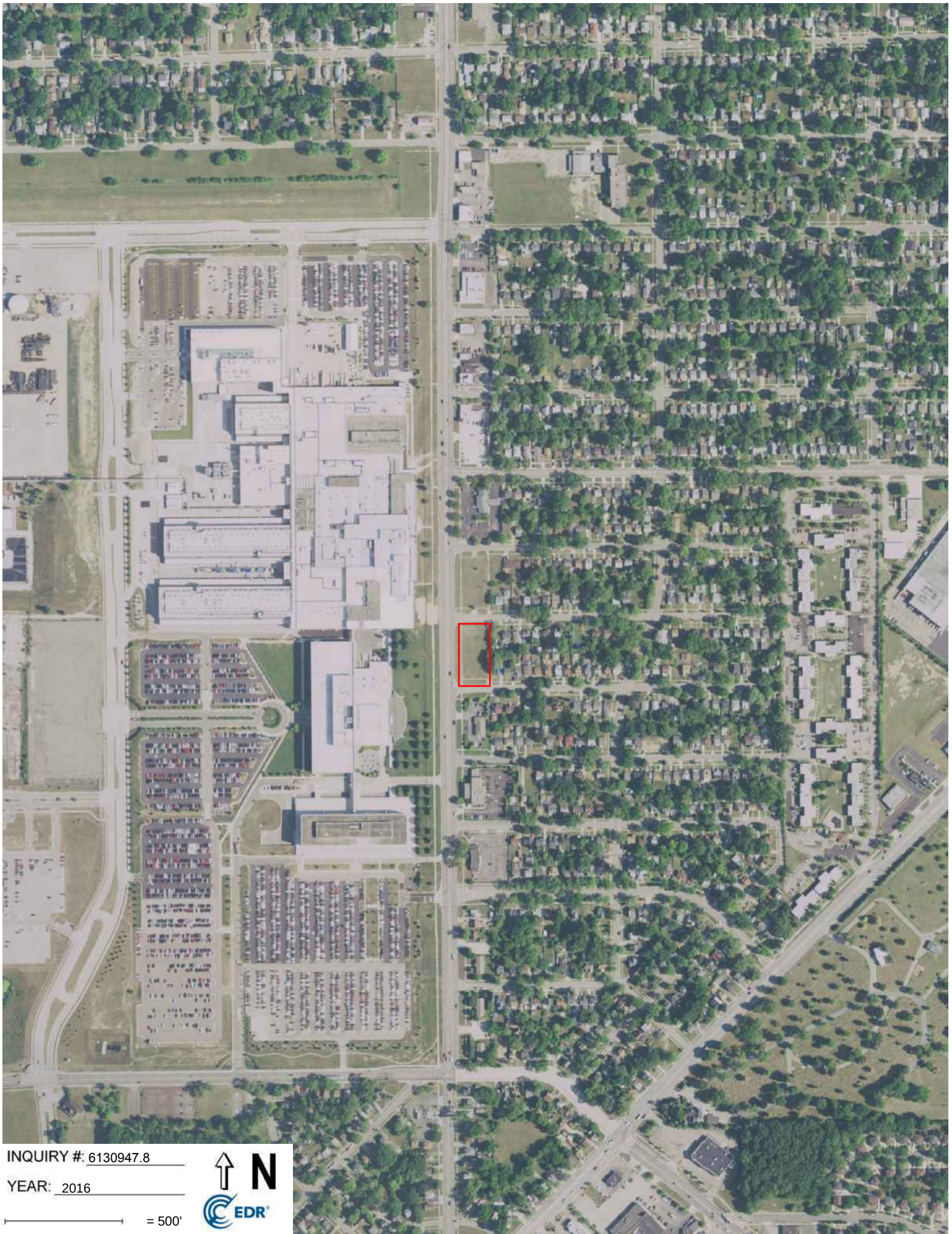
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INQUIRY #: 6130947.8

YEAR: 2016

— = 500'





INQUIRY #: 6130947.8

YEAR: 2012

500'





INQUIRY #: 6130947.8

YEAR: 2009

— = 500'





INQUIRY #: 6130947.8

YEAR: 2005

— = 500'





INQUIRY #: 6130947.8

YEAR: 1999

— = 500'





INQUIRY #: 6130947.8

YEAR: 1997

↑ N

EDR

= 500'



INQUIRY #: 6130947.8

YEAR: 1987

— = 500'





INQUIRY #: 6130947.8

YEAR: 1983

— = 500'





INQUIRY #: 6130947.8

YEAR: 1976

— = 500'





INQUIRY #: 6130947.8

YEAR: 1972

— = 500'





INQUIRY #: 6130947.8

YEAR: 1967

500'





INQUIRY #: 6130947.8

YEAR: 1956

— = 500'





INQUIRY #: 6130947.8

YEAR: 1952

— = 500'





INQUIRY #: 6130947.8

YEAR: 1949

— = 500'





INQUIRY #: 6130947.8

YEAR: 1940

500'





INQUIRY #: 6130947.8

YEAR: 1937

— = 500'



Appendix B

Groundwater Sampling Logs

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-03	Date	12/28/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	32.0 degrees F and Cloudy. The wind is blowing S at 4.7 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	5.60	Total Depth (ft-bmp)	13.83	Water Column (ft)	8.23
Gallons in Well	1.34				
Purge Start	12:37	Pump Intake (ft-bmp)	11.04	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	13:29	Volumes Purged	1.12	Sample ID	JS-MW-03_GW-122821
Sampled by	Gary Schafer				
Sample Time	13:14	Gallons Purged	1.50	Replicate/ Code No.	NA
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:40	0	0	250	5.60	--	7.07	0.98	1.42	3.1	10.8	338.8	--	--
12:45	5	5	250	7.40	--	7.09	0.97	1.16	3.04	10.8	335.8	--	--
12:50	5	10	250	8.20	--	7.1	0.97	1.26	3.16	10.4	332.4	--	--
12:55	5	15	250	8.67	--	7.11	0.97	1.11	3.03	10.5	330.6	--	--
13:00	5	20	250	9.16	--	7.12	0.97	1.28	2.95	10.6	328.7	--	--
13:05	5	25	250	9.46	--	7.12	0.97	0.99	3.06	9.4	326.9	--	--
13:10	5	30	250	9.94	--	7.14	0.97	1.82	2.8	10.9	324.4	--	--
13:15	5	35	250	10.42	--	7.14	0.97	1.71	2.71	11	323.6	--	--
13:20	5	40	250	11.04	--	7.13	0.96	1.67	2.62	11	322.4	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-04	Date	12/28/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	32.0 degrees F and Cloudy. The wind is blowing S/SE at 6.9 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	5.20	Total Depth (ft-bmp)	13.66	Water Column (ft)	8.46
Gallons in Well	1.37				
Purge Start	14:23	Pump Intake (ft-bmp)	12.94	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	15:37	Volumes Purged	1.46	Sample ID	JS-MW-04
Sampled by	Gary Schafer				
Sample Time	15:26	Gallons Purged	2.00	Replicate/ Code No.	DUP-01_GW-122821
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:25	0	0	250	5.94	--	7.31	1.93	1.69	3.34	11.1	300.9	--	--
14:30	5	5	250	7.04	--	7.28	1.93	0.86	2.48	11	281.1	--	--
14:35	5	10	250	8.10	--	7.28	1.93	0.85	2.26	11.1	264.3	--	--
14:40	5	15	250	8.84	--	7.29	1.93	1.01	2.24	11.1	246.7	--	--
14:45	5	20	250	8.86	--	7.3	1.93	0.79	2.25	11	227.4	--	--
14:50	5	25	250	9.50	--	7.3	1.93	0.74	1.94	11	211.2	--	--
14:55	5	30	250	9.88	--	7.31	1.93	1.33	1.91	11	205.7	--	--
15:00	5	35	250	10.40	--	7.31	1.92	2.14	1.39	11.2	197.6	--	--
15:05	5	40	250	11.18	--	7.3	1.94	1.31	1.02	11.2	187.2	--	--
15:10	5	45	250	11.78	--	7.29	1.97	1.01	0.88	11.2	181	--	--
15:15	5	50	250	12.09	--	7.29	1.97	0.86	0.78	11.1	176.1	--	--
15:20	5	55	250	12.11	--	7.29	1.93	0.66	0.86	10.8	168.6	--	--
15:25	5	60	250	12.94	--	7.29	1.93	0.58	0.9	11.2	164	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-05	Date	12/28/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	Snowing temp 34	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	2.67	Total Depth (ft-bmp)	9.98	Water Column (ft)	7.31
Gallons in Well	1.19				
Purge Start	15:57	Pump Intake (ft-bmp)	2.7	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	17:07	Volumes Purged		Sample ID	JS-MW-05_GW-122821
Sampled by	Gary Schafer				
Sample Time	16:56	Gallons Purged		Replicate/ Code No.	NA
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
16:00	0	0	250	2.70	--	7.14	1.01	40	0.85	9.2	53.1	--	--
16:05	5	5	250	2.70	--	7.13	1	11.1	0.17	8.7	4.9	--	--
16:10	5	10	250	2.70	--	7.13	1	9.21	0.11	8.7	2.2	--	--
16:15	5	15	250	2.70	--	7.13	1	8.61	0.14	8.6	-2.5	--	--
16:20	5	20	250	2.70	--	7.14	1	7.42	0.11	8.5	-11.7	--	--
16:25	5	25	250	2.70	--	7.15	0.99	6.71	0.2	8.5	-20	--	--
16:30	5	30	250	2.70	--	7.14	0.99	5.61	0.14	8.5	-29	--	--
16:35	5	35	250	2.70	--	7.14	0.99	8.6	0.1	8.5	-48	--	--
16:40	5	40	250	2.70	--	7.14	0.98	8.4	0.09	8.5	-55.2	--	--
16:45	5	45	250	2.70	--	7.14	0.98	5.97	0.12	8.5	-55.9	--	--
16:50	5	50	250	2.70	--	7.14	0.98	5.27	0.11	8.5	-54.2	--	--
16:55	5	55	250	2.70	--	7.14	0.98	5.01	0.11	8.5	-57.3	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____

Well Locked at Arrival: _____

Condition of Well: _____

Well Locked at Departure: _____

Well Completion: NA _____

Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-06	Date	12/29/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	33.1 degrees F and Light Drizzle and Fog/Mist. The wind is blowing SW at 5.8 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	6.55	Total Depth (ft-bmp)	13.92	Water Column (ft)	7.37
Purge Start	10:17	Pump Intake (ft-bmp)	9.08	Purge Method	Low-Flow
Purge End	11:27	Volumes Purged	1.67	Sample ID	JS-MW-06_GW-122921
Sample Time	11:21	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	1.2
				Purge Equipment	Peristaltic
				Sampled by	Gary Schafer
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:20	0	0	250	6.95	--	6.9	1.14	15.7	1.55	11.2	258.6	--	--
10:25	5	5	250	7.40	--	7.19	1.11	8.11	0.81	11.1	217	--	--
10:30	5	10	250	7.66	--	7.22	1.1	5.75	0.61	11	104.3	--	--
10:35	5	15	250	7.91	--	7.22	1.08	4.48	0.5	11.2	40	--	--
10:40	5	20	250	8.04	--	7.23	1.08	3.6	0.48	11.2	15.3	--	--
10:45	5	25	250	8.24	--	7.24	1.07	2.89	0.43	11.2	-2.6	--	--
10:50	5	30	250	8.40	--	7.24	1.07	2.25	0.4	11.3	-19.3	--	--
10:55	5	35	250	8.57	--	7.23	1.07	2.07	0.34	11.5	-32.9	--	--
11:00	5	40	250	8.73	--	7.21	1.05	2.18	0.28	11.6	-49.8	--	--
11:05	5	45	250	8.88	--	7.2	1.05	2.44	0.24	11.6	-57.7	--	--
11:10	5	50	250	8.98	--	7.21	1.05	2.26	0.24	11.5	-61.6	--	--
11:15	5	55	250	9.05	--	7.2	1.05	2.62	0.2	11.5	-66.7	--	--
11:20	5	60	250	9.08	--	7.2	1.05	2.41	0.23	11.5	-66	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-07	Date	12/29/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	34.0 degrees F and Fog/Mist. The wind is blowing S/SW at 8.1 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	3.29	Total Depth (ft-bmp)	14.63	Water Column (ft)	11.34
Purge Start	11:43	Pump Intake (ft-bmp)	3.78	Purge Method	Low-Flow
Purge End	12:28	Volumes Purged	0.82	Sample ID	JS-MW-07_GW-122921
Sample Time	12:21	Gallons Purged	1.50	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	1.84
				Purge Equipment	Peristaltic
				Sampled by	Gary Schafer
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:45	0	0	250	3.49	--	7.12	0.79	16.2	3.77	10.9	8.5	--	--
11:50	5	5	250	3.57	--	7.11	0.78	8.24	3.43	10.3	6.2	--	--
11:55	5	10	250	3.61	--	7.12	0.78	4.78	3.38	10.3	8.6	--	--
12:00	5	15	250	3.66	--	7.13	0.78	5.77	3.34	10.4	13	--	--
12:05	5	20	250	3.72	--	7.14	0.78	5.06	3.4	10.4	18	--	--
12:10	5	25	250	3.75	--	7.13	0.77	3.2	3.26	10.5	25.3	--	--
12:15	5	30	250	3.78	--	7.13	0.77	3.16	3.28	10.5	26.8	--	--
12:20	5	35	250	3.78	--	7.13	0.77	2.37	3.32	10.5	29	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location:

Well Locked at Arrival:

Condition of Well:

Well Locked at Departure:

Well Completion: NA

Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-09	Date	12/29/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	34.0 degrees F and Fog/Mist. The wind is blowing SW at 8.1 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	6.34	Total Depth (ft-bmp)	13.01	Water Column (ft)	6.67
Gallons in Well	1.08				
Purge Start	13:03	Pump Intake (ft-bmp)		Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	14:01	Volumes Purged	1.85	Sample ID	JS-MW-09_GW-122921
Sampled by	Gary Schafer				
Sample Time	13:51	Gallons Purged	2.00	Replicate/ Code No.	DUP-02_GW-122921
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:05	0	0	250	7.00	--	7.02	1.03	6.61	0.81	11.3	-68.1	--	--
13:10	5	5	250	7.72	--	7.01	1.03	4.77	0.38	11.1	-79	--	--
13:15	5	10	250	8.19	--	7.02	1.03	4.76	0.3	11.1	-86.2	--	--
13:20	5	15	250	8.45	--	7.02	1.03	6.83	0.31	10.9	-88.8	--	--
13:25	5	20	250	8.83	--	7.02	1.03	7.89	0.28	11	-90.7	--	--
13:30	5	25	250	9.34	--	7.02	1.03	8.7	0.32	11	-90	--	--
13:35	5	30	250	9.70	--	7.02	1.03	11.2	0.31	11.1	-91.3	--	--
13:40	5	35	250	10.08	--	7.01	1.03	11.9	0.33	11.1	-90.2	--	--
13:45	5	40	250	10.72	--	7.01	1.04	32	0.34	11.1	-92.4	--	--
13:50	5	45	250	10.97	--	7.01	1.04	30.6	0.33	11.1	-93.5	Clear	Mild

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____

Well Locked at Arrival: _____

Condition of Well: _____

Well Locked at Departure: _____

Well Completion: NA _____

Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-10	Date	12/29/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	36.0 degrees F and Cloudy.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	7.50	Total Depth (ft-bmp)	15.78	Water Column (ft)	8.28
Purge Start	14:33	Pump Intake (ft-bmp)		Purge Method	Low-Flow
Purge End	15:38	Volumes Purged	1.48	Sample ID	JW-MW-10_GW-122921
Sample Time	15:31	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	1.35
				Purge Equipment	Peristaltic
				Sampled by	Gary Schafer
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:35	0	0	250	8.02	--	6.98	2.77	18.2	0.5	11.3	-66.5	--	--
14:40	5	5	250	8.44	--	7.05	2.57	9	0.33	11.8	-65.1	--	--
14:45	5	10	250	8.68	--	7.09	2.15	9.08	0.32	11.7	-57.8	--	--
14:50	5	15	250	8.88	--	7.08	1.99	12.4	0.3	11.6	-54.7	--	--
14:55	5	20	250	9.10	--	7.07	2	11.7	0.26	11.6	-55.5	--	--
15:00	5	25	250	9.20	--	7.07	2.01	10.2	0.27	11.7	-58.6	--	--
15:05	5	30	250	9.31	--	7.07	2.04	9.42	0.2	11.7	-64.2	--	--
15:10	5	35	250	9.45	--	7.07	2.07	9.1	0.2	11.8	-75.2	--	--
15:15	5	40	250	9.50	--	7.07	2.08	7.02	0.22	11.7	-78.9	--	--
15:20	5	45	250	9.58	--	7.07	2.08	5.49	0.21	11.7	-82.4	--	--
15:25	5	50	250	9.64	--	7.07	2.09	4.63	0.21	11.7	-83.9	--	--
15:30	5	55	250	9.68	--	7.07	2.11	3.87	0.22	11.7	-82.4	Clear	Mild

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____

Well Locked at Arrival: _____

Condition of Well: _____

Well Locked at Departure: _____

Well Completion: NA _____

Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-11	Date	12/30/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	Overcast temp 30	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	5.14	Total Depth (ft-bmp)	13.8	Water Column (ft)	8.66
Gallons in Well	1.41				
Purge Start	08:53	Pump Intake (ft-bmp)		Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	09:59	Volumes Purged	1.42	Sample ID	JS-MW-11_GW-123021
Sampled by	Gary Schafer				
Sample Time	09:51	Gallons Purged	2.00	Replicate/ Code No.	NA
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:55	0	0	250	6.33	--	7.1	0.91	4.72	3.19	10.8	200.5	--	--
09:00	5	5	250	6.56	--	7.11	0.91	5.26	3.05	10.8	196	--	--
09:05	5	10	250	7.08	--	7.13	0.9	5.14	2.98	10.8	184.6	--	--
09:10	5	15	250	7.16	--	7.13	0.9	2.88	2.98	10.6	174.1	--	--
09:15	5	20	250	7.17	--	7.15	0.9	3.23	2.93	10.5	166.8	--	--
09:20	5	25	250	7.80	--	7.16	0.9	2.85	2.86	10.5	149.3	--	--
09:25	5	30	250	7.94	--	7.16	0.9	2.86	2.89	10.5	147.3	--	--
09:30	5	35	250	8.28	--	7.15	0.9	3.65	2.88	10.8	133	--	--
09:35	5	40	250	8.43	--	7.16	0.9	7.45	2.85	10.8	127.2	--	--
09:40	5	45	250	8.58	--	7.16	0.9	8.09	2.84	10.8	124.7	--	--
09:45	5	50	250	8.76	--	7.16	0.9	8.69	2.77	10.9	122.2	--	--
09:50	5	55	250	9.10	--	7.16	0.9	8	2.84	10.9	122	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____

Well Locked at Arrival: _____

Condition of Well: _____

Well Locked at Departure: _____

Well Completion: NA _____

Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-16	Date	12/30/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	32.0 degrees F and Cloudy. The wind is blowing E at 3.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
				Well Casing Material	PVC
Static Water Level (ft-bmp)	6.17	Total Depth (ft-bmp)	15.83	Water Column (ft)	9.66
				Gallons in Well	1.57
Purge Start	13:37	Pump Intake (ft-bmp)	8.2	Purge Method	Low-Flow
				Purge Equipment	Peristaltic
Purge End	14:58	Volumes Purged	1.27	Sample ID	JS-MW-16_GW-123021
				Sampled by	Gary Schafer
Sample Time	14:41	Gallons Purged	2.00	Replicate/ Code No.	JS-MW-16-MS_GW-123021, JS-MW-16-MSD_GW-123021
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:40	0	0	250	6.47	--	7.07	0.78	100	0.57	11.4	-35.6	--	--
13:45	5	5	250	6.80	--	7.07	0.78	195	0.2	11.4	-39.6	--	--
13:50	5	10	250	7.20	--	7.07	0.78	167	0.16	11.5	-42.4	--	--
13:55	5	15	250	7.40	--	7.07	0.79	106	0.15	11.4	-44	--	--
14:00	5	20	250	7.61	--	7.08	0.79	60.3	0.14	11.4	-48.6	--	--
14:05	5	25	250	7.73	--	7.08	0.79	42.1	0.14	11.4	-49.1	--	--
14:10	5	30	250	7.80	--	7.08	0.79	42	0.11	11.4	-48.9	--	--
14:15	5	35	250	7.87	--	7.08	0.79	37.6	0.12	11.3	-49	--	--
14:20	5	40	250	7.95	--	7.08	0.79	29.9	0.12	11.4	-50.8	--	--
14:25	5	45	250	8.02	--	7.08	0.79	26.2	0.13	11.4	-51.5	--	--
14:30	5	50	250	8.08	--	7.08	0.79	21.5	0.16	11.3	-51.7	--	--
14:35	5	55	250	8.14	--	7.08	0.79	18.6	0.14	11.4	-53.7	--	--
14:40	5	60	250	8.20	--	7.08	0.79	17.6	0.12	11.4	-55.2	Clear	Mild

Constituent Sampled	Container	Number	Preservative

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____
Condition of Well: _____
Well Completion: NA _____

Well Locked at Arrival: _____
Well Locked at Departure: _____
Key Number To Well: NA _____

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-19	Date	12/30/2021
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	30.0 degrees F and Cloudy. The wind is blowing E at 5.8 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	6.04	Total Depth (ft-bmp)	16.66	Water Column (ft)	10.62
Purge Start	12:33	Pump Intake (ft-bmp)	6.3	Purge Method	Low-Flow
Purge End	13:21	Volumes Purged	1.16	Sample ID	JS-MW-19_GW-123021
Sample Time	13:16	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	1.73
				Purge Equipment	Peristaltic
				Sampled by	Gary Schafer
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:35	0	0	250	6.23	--	7.07	0.91	39.7	1.04	11.5	157	--	--
12:40	5	5	250	6.23	--	7.08	0.91	33.5	0.83	11.6	106	--	--
12:45	5	10	250	6.27	--	7.08	0.89	21.1	0.57	11.7	29.4	--	--
12:50	5	15	250	6.29	--	7.09	0.88	12	0.36	11.7	-22.3	--	--
12:55	5	20	250	6.30	--	7.09	0.88	7.39	0.26	11.7	-35.8	--	--
13:00	5	25	250	6.30	--	7.09	0.88	5.78	0.21	11.7	-49.5	--	--
13:05	5	30	250	6.30	--	7.08	0.87	2.92	0.17	11.6	-58.4	--	--
13:10	5	35	250	6.30	--	7.08	0.87	2.22	0.17	11.6	-64.2	--	--
13:15	5	40	250	6.30	--	7.08	0.87	2.24	0.16	11.6	-66.7	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-20	Date	01/04/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	30.0 degrees F and Mostly Cloudy. The wind is blowing S at 11.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	6.25	Total Depth (ft-bmp)	17.82	Water Column (ft)	11.57
Purge Start	14:07	Pump Intake (ft-bmp)	11.94	Purge Method	Low-Flow
Purge End	15:15	Volumes Purged	0.80	Sample ID	JW-MW-20_GW-010422
Sample Time	15:06	Gallons Purged	1.50	Replicate/ Code No.	DUP-03_GW-010422
				Well Casing Material	PVC
				Gallons in Well	1.88
				Purge Equipment	Peristaltic
				Sampled by	Gary Schafer
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:10	0	0	250	6.90	--	7.15	5.3	3.51	4.53	12	117.5	--	--
14:15	5	5	250	7.90	--	7.17	5.31	2.92	4.36	11.9	84.1	--	--
14:20	5	10	250	8.45	--	7.18	5.31	2.06	4.24	11.8	63.7	--	--
14:25	5	15	250	9.60	--	7.18	5.3	1.66	3.92	11.8	45.6	--	--
14:30	5	20	250	9.60	--	7.18	5.31	1.33	3.93	11.8	40.7	--	--
14:35	5	25	250	9.90	--	7.18	5.3	1.66	3.9	11.6	32.4	--	--
14:40	5	30	250	10.36	--	7.18	5.3	1.57	3.82	11.8	33.7	--	--
14:45	5	35	250	10.90	--	7.18	5.28	1.27	3.7	11.8	33.9	--	--
14:50	5	40	250	11.21	--	7.18	5.3	0.96	3.7	11.3	35.5	--	--
14:55	5	45	250	11.43	--	7.17	5.29	0.83	3.68	12	35.4	--	--
15:00	5	50	250	11.60	--	7.17	5.28	1.23	3.67	12	34.5	--	--
15:05	5	55	250	11.94	--	7.17	5.28	0.97	3.67	12.2	38.9	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____

Well Locked at Arrival: _____

Condition of Well: _____

Well Locked at Departure: _____

Well Completion: NA _____

Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-21	Date	01/04/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	23.0 degrees F and Mostly Cloudy. The wind is blowing S at 11.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	5.38	Total Depth (ft-bmp)	16.85	Water Column (ft)	11.47
Purge Start	11:03	Pump Intake (ft-bmp)	5.52	Purge Method	Low-Flow
Purge End	12:03	Volumes Purged	1.08	Sample ID	JS-MW-21_GW-010422
Sample Time	11:56	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	1.86
				Purge Equipment	Peristaltic
				Sampled by	Gary Schafer
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:05	0	0	250	5.50	--	7.12	4	63.4	0.98	11.5	68	--	--
11:10	5	5	250	5.50	--	7.12	4.01	19	0.68	11.6	54.6	--	--
11:15	5	10	250	5.50	--	7.11	4.02	11	0.6	11.5	38.8	--	--
11:20	5	15	250	5.50	--	7.11	4.02	8.17	0.43	11.5	29.4	--	--
11:25	5	20	250	5.50	--	7.1	4.03	6.12	0.36	11.6	18.4	--	--
11:30	5	25	250	5.52	--	7.1	4.03	4.82	0.33	11.5	15.4	--	--
11:35	5	30	250	5.52	--	7.1	4.03	4.04	0.28	11.7	6.9	--	--
11:40	5	35	250	5.52	--	7.1	4.02	3.33	0.29	11.7	4.7	--	--
11:45	5	40	250	5.52	--	7.1	4.03	2.76	0.27	11.7	0.4	--	--
11:50	5	45	250	5.52	--	7.1	4.01	2.61	0.23	11.7	-3.9	--	--
11:55	5	50	250	5.52	--	7.1	4.01	2.55	0.23	11.6	-6.7	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-22	Date	01/04/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	23.0 degrees F and Mostly Cloudy. The wind is blowing S at 11.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	4.95	Total Depth (ft-bmp)	17.71	Water Column (ft)	12.76
Gallons in Well	2.07				
Purge Start	09:47	Pump Intake (ft-bmp)	5.01	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	10:44	Volumes Purged	0.97	Sample ID	JS-MW-22_GW-010422
Sampled by	Gary Schafer				
Sample Time	10:36	Gallons Purged	2.00	Replicate/ Code No.	NA
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:50	0	0	250	4.98	--	7.08	5.05	83.7	0.49	11.5	88	--	--
09:55	5	5	250	4.98	--	7.13	5.08	31.4	0.23	11.7	30.4	--	--
10:00	5	10	250	5.00	--	7.15	5.06	17	0.24	11.9	12.2	--	--
10:05	5	15	250	5.00	--	7.15	4.95	13.6	0.19	11.6	2.6	--	--
10:10	5	20	250	5.00	--	7.18	4.69	5.58	0.36	11.6	-9	--	--
10:15	5	25	250	5.00	--	7.18	4.65	5.3	0.35	11.6	-10.1	--	--
10:20	5	30	250	5.00	--	7.18	4.56	3.67	0.46	11.6	-13.3	--	--
10:25	5	35	250	5.00	--	7.18	4.53	2.31	0.45	11.6	-16.42	--	--
10:30	5	40	250	5.00	--	7.19	4.48	2.14	0.47	11.6	-18.5	--	--
10:35	5	45	250	5.01	--	7.18	4.48	2.6	0.46	11.7	-21.4	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-23	Date	01/05/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	30.9 degrees F and Haze. Winds from west at 35 mph	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	1.76	Total Depth (ft-bmp)	10.3	Water Column (ft)	8.54
Gallons in Well	1.39				
Purge Start	12:43	Pump Intake (ft-bmp)	2.4	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	13:35	Volumes Purged	1.44	Sample ID	JS-MW-23_GW-010522
Sampled by	Gary Schafer				
Sample Time	13:26	Gallons Purged	2.00	Replicate/ Code No.	NA
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:45	0	0	250	2.31	--	7.11	0.84	2.28	0.84	8.5	72.1	--	--
12:50	5	5	250	2.36	--	7.14	0.83	1.26	0.58	8.3	53	--	--
12:55	5	10	250	2.40	--	7.15	0.83	1.63	0.6	8.3	48.2	--	--
13:00	5	15	250	2.40	--	7.15	0.82	1.54	0.44	8.3	33.4	--	--
13:05	5	20	250	2.40	--	7.16	0.82	1.34	0.39	8.2	19.8	--	--
13:10	5	25	250	2.40	--	7.15	0.82	1.07	0.33	8.2	13.7	--	--
13:15	5	30	250	2.40	--	7.15	0.82	0.85	0.28	8.2	5.9	--	--
13:20	5	35	250	2.40	--	7.16	0.82	0.58	0.28	8.3	4.31	--	--
13:25	5	40	250	2.40	--	7.15	0.81	0.67	0.27	8.2	-0.8	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-24	Date	01/05/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	34.0 degrees F and Light Snow. The wind is blowing SW at 17.2 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	1.13	Total Depth (ft-bmp)	7.23	Water Column (ft)	6.1
Purge Start	10:47	Pump Intake (ft-bmp)	1.8	Purge Method	Low-Flow
Purge End	11:57	Volumes Purged	2.53	Sample ID	JS-MW-24_GW-010522
Sample Time	11:51	Gallons Purged	2.50	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.99
				Purge Equipment	Peristaltic
				Sampled by	Gary Schafer
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:50	0	0	250	1.48	--	7.12	1	146	6	6.9	63.3	--	--
10:55	5	5	250	1.60	--	7.14	0.99	19.5	4.94	6.3	31.1	--	--
11:00	5	10	250	1.60	--	7.15	0.99	11.7	4.66	6.3	46.4	--	--
11:05	5	15	250	1.62	--	7.16	0.97	8.55	4.39	6.3	52.2	--	--
11:10	5	20	250	1.63	--	7.15	0.97	7.25	3.95	6.3	53.2	--	--
11:15	4	25	250	1.66	--	7.15	0.96	5.1	3.56	6.3	48.9	--	--
11:20	5	30	250	1.73	--	7.15	0.96	4	3.5	6.3	48.1	--	--
11:25	5	35	250	1.73	--	7.14	0.95	3.57	2.94	6.3	30.6	--	--
11:30	5	40	250	1.78	--	7.14	0.95	2.94	2.9	6.3	27.2	--	--
11:35	5	45	250	1.78	--	7.14	0.95	2.31	2.69	6.3	28.5	--	--
11:40	5	50	250	1.80	--	7.14	0.95	3.2	2.44	6.3	27.9	--	--
11:45	5	55	250	1.80	--	7.14	0.95	2.75	2.37	6.3	31	--	--
11:50	5	60	250	1.80	--	7.14	0.94	2.66	2.36	6.3	32	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-25	Date	01/05/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	34.0 degrees F and Light Snow. The wind is blowing S/SW at 12.8 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	2.35	Total Depth (ft-bmp)	7.31	Water Column (ft)	4.96
Gallons in Well	0.81				
Purge Start	09:17	Pump Intake (ft-bmp)	3.65	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	10:29	Volumes Purged	2.47	Sample ID	JS-MW-25_GW-010522
Sampled by	Gary Schafer				
Sample Time	10:21	Gallons Purged	2.00	Replicate/ Code No.	NA
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:20	0	0	250	2.52	--	7.05	1.25	3.68	7.4	7.1	209.7	--	--
09:25	5	5	250	2.52	--	7.12	1.25	4.53	7.2	6.9	195	--	--
09:30	5	10	250	2.52	--	7.14	1.24	2.5	6.73	6.6	171.3	--	--
09:35	5	15	250	2.52	--	7.13	1.21	1.73	6.44	6.4	142.8	--	--
09:40	5	20	250	2.58	--	7.11	1.19	1.22	6.27	6.2	121.3	--	--
09:45	5	25	250	2.78	--	7.11	1.17	1.12	5.9	6.2	96.9	--	--
09:50	5	30	250	2.91	--	7.11	1.17	0.64	5.9	6.1	83.8	--	--
09:55	5	35	250	3.05	--	7.1	1.16	0.75	5.42	6.1	64.5	--	--
10:00	5	40	250	3.19	--	7.1	1.16	0.93	5.12	6.1	52.1	--	--
10:05	5	45	250	3.31	--	7.09	1.16	0.76	4.6	6.2	41.2	--	--
10:10	5	50	250	3.40	--	7.09	1.16	0.78	4.6	6.3	34.2	--	--
10:15	5	55	250	3.53	--	7.09	1.16	0.72	3.99	6.3	26.3	--	--
10:20	5	60	250	3.65	--	7.09	1.16	0.71	3.9	6.3	25.7	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-26	Date	01/06/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	16.0 degrees F and Cloudy. The wind is blowing SW at 8.1 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
				Well Casing Material	PVC
Static Water Level (ft-bmp)	4.83	Total Depth (ft-bmp)	18.02	Water Column (ft)	13.19
				Gallons in Well	2.14
Purge Start	09:32	Pump Intake (ft-bmp)	7.2	Purge Method	Low-Flow
				Purge Equipment	Peristaltic
Purge End	10:50	Volumes Purged	0.93	Sample ID	JS-MW-26_GW-010622
				Sampled by	Gary Schafer
Sample Time	10:31	Gallons Purged	2.00	Replicate/ Code No.	JS-MW-26-MS_GW-010622, JS-MW-MSD_GW-010622
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:35	0	0	250	5.20	--	7.06	4.12	16.9	2.42	10.7	261.9	--	--
09:40	5	5	250	5.85	--	7.06	4.12	11.8	2.35	10.7	258.1	--	--
09:45	5	10	250	6.30	--	7.07	4.12	10.5	2.38	10.7	256.2	--	--
09:50	5	15	250	6.40	--	7.08	4.12	7.17	2.36	10.7	249.5	--	--
09:55	5	20	250	5.10	--	7.08	4.04	4.82	2.29	10	231.7	--	--
10:00	5	25	250	6.45	--	7.09	4.1	5.24	1.96	11	215.2	--	--
10:05	5	30	250	6.80	--	7.1	4.12	3.99	1.8	11.2	194.9	--	--
10:10	5	35	250	6.95	--	7.1	4.12	4.4	1.7	11	175.2	--	--
10:15	5	40	250	7.12	--	7.11	4.12	4.11	1.42	11	141.1	--	--
10:20	5	45	250	7.20	--	7.11	4.12	4.08	1.4	11.1	134.1	--	--
10:25	5	50	250	7.20	--	7.11	4.13	5.33	1.36	11	117.2	--	--
10:30	5	55	250	7.20	--	7.12	4.13	4.16	1.33	11.1	101.3	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____

Well Locked at Arrival: _____

Condition of Well: _____

Well Locked at Departure: _____

Well Completion: NA

Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-27	Date	01/06/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	19.0 degrees F and Light Snow. The wind is blowing SW at 10.3 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	9.93	Total Depth (ft-bmp)	15.78	Water Column (ft)	5.85
Purge Start	12:12	Pump Intake (ft-bmp)	10.22	Purge Method	Low-Flow
Purge End	13:01	Volumes Purged	2.11	Sample ID	JS-MW-27_GW-010622
Sample Time	12:56	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.95
				Purge Equipment	Peristaltic
				Sampled by	Gary Schafer
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:15	0	0	250	10.10	--	6.93	5.23	41.4	0.41	11.6	-58.4	--	--
12:20	5	5	250	10.13	--	7.05	3.65	27.3	0.43	11.4	-37.4	--	--
12:25	5	10	250	10.17	--	7.09	2.94	19.3	1.33	11.3	-34.1	--	--
12:30	5	15	250	10.18	--	7.08	2.68	7.05	1.01	11	-30.6	--	--
12:35	5	20	250	10.18	--	7.08	2.67	5.31	1	11.1	-35.1	--	--
12:40	5	25	250	10.20	--	7.07	2.67	3.26	0.78	11	-28.7	--	--
12:45	5	30	250	10.20	--	7.06	2.67	2.55	0.72	11	-28.8	--	--
12:50	5	35	250	10.20	--	7.05	2.68	2.06	0.71	10.9	-28.9	--	--
12:55	5	40	250	10.22	--	7.05	2.67	1.92	0.68	11.2	-27.4	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-28	Date	01/05/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	26.1 degrees F and Light Snow. Winds from west at 40 mph	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	2.68	Total Depth (ft-bmp)	9.68	Water Column (ft)	7
Purge Start	13:53	Pump Intake (ft-bmp)	2.93	Purge Method	Low-Flow
Purge End	14:43	Volumes Purged	1.75	Sample ID	JS-MW-28_GW-010522
Sample Time	14:36	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	1.14
				Purge Equipment	Peristaltic
				Sampled by	Gary Schafer
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:55	0	0	250	2.81	--	7.25	1.22	9.75	6.2	8.4	64.5	--	--
14:00	5	5	250	2.81	--	7.25	1.22	6.37	4.82	8.1	67.9	--	--
14:05	5	10	250	2.80	--	7.24	1.22	7.24	4.78	8.1	71.7	--	--
14:10	5	15	250	2.84	--	7.24	1.22	4.98	4.83	8.3	73.4	--	--
14:15	5	20	250	2.86	--	7.24	1.21	4.14	4.83	8.4	76.5	--	--
14:20	5	25	250	2.86	--	7.23	1.21	4.27	4.76	8.4	80.7	--	--
14:25	5	30	250	2.86	--	7.21	1.2	3.71	4.72	8.4	84.9	--	--
14:30	5	35	250	2.93	--	7.21	1.17	3.41	4.68	8.4	85.3	--	--
14:35	5	40	250	2.93	--	7.21	1.17	3.21	4.67	8.5	85.6	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-29	Date	01/04/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	28.0 degrees F and Mostly Cloudy. The wind is blowing S at 9.2 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	1.48	Total Depth (ft-bmp)	10.18	Water Column (ft)	8.7
Gallons in Well	1.41				
Purge Start	12:22	Pump Intake (ft-bmp)	5.81	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	13:11	Volumes Purged	1.06	Sample ID	JS-MW-29_GW-010422
Sampled by	Gary Schafer				
Sample Time	13:06	Gallons Purged	1.50	Replicate/ Code No.	NA
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:25	0	0	250	2.35	--	7.28	2.5	5.38	3.93	8.7	30.5	--	--
12:30	5	5	250	2.94	--	7.28	2.49	4.59	3.64	8.9	8.6	--	--
12:35	5	10	250	3.38	--	7.27	2.49	3.72	3.66	8.1	-5.7	--	--
12:40	5	15	250	3.93	--	7.29	2.48	4.36	3.06	8.8	3.4	--	--
12:45	5	20	250	4.50	--	7.29	2.47	4.26	3.07	8.8	2.9	--	--
12:50	5	25	250	4.92	--	7.28	2.47	3.91	3.08	8.8	2.1	--	--
12:55	5	30	250	5.39	--	7.29	2.47	3.11	2.97	8.8	1.8	--	--
13:00	5	35	250	5.42	--	7.28	2.47	3.44	2.81	8.8	1.9	--	--
13:05	5	40	250	5.81	--	7.28	2.47	3.01	3.06	8.8	-3.6	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30075936	Well ID	JS-MW-30	Date	01/06/2022
Project Name/Location	RACER Pontiac North Campus 2021		Weather(°F)	18.0 degrees F and Light Snow. The wind is blowing SW at 10.3 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
				Well Casing Material	PVC
Static Water Level (ft-bmp)	1.63	Total Depth (ft-bmp)	8.18	Water Column (ft)	6.55
				Gallons in Well	1.06
Purge Start	11:02	Pump Intake (ft-bmp)	2.17	Purge Method	Low-Flow
				Purge Equipment	Peristaltic
Purge End	11:52	Volumes Purged	1.89	Sample ID	JS-MW-30_GW-010622
				Sampled by	Gary Schafer
Sample Time	11:46	Gallons Purged	2.00	Replicate/ Code No.	NA
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:05	0	0	250	1.95	--	7.13	0.77	16	6.41	6.9	115.8	--	--
11:10	5	5	250	2.00	--	7.14	0.77	8.8	4.57	7.1	118.3	--	--
11:15	5	10	250	2.12	--	7.12	0.77	6.88	3.96	7	120.6	--	--
11:20	5	15	250	2.00	--	7.12	0.771	4.63	3.33	6.5	123	--	--
11:25	5	20	250	2.00	--	7.12	0.771	4.29	3.19	6.5	123.1	--	--
11:30	5	25	250	2.00	--	7.11	0.762	3.07	3.26	6.6	123.3	--	--
11:35	5	30	250	2.08	--	7.12	0.77	3.35	2.92	7.3	122.5	--	--
11:40	5	35	250	2.10	--	7.11	0.77	3.01	2.98	7.3	122.5	--	--
11:45	5	40	250	2.17	--	7.11	0.77	2.7	2.89	7.2	121.5	Clear	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-04	Date	06/21/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	81.0 degrees F and Clear. The wind is blowing W at 9.2 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	6.58	Total Depth (ft-bmp)	13.48	Water Column (ft) 6.9	Gallons in Well
Purge Start		Pump Intake (ft-bmp)		Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-04_GW-062122	Sampled by Sommer Guy
Sample Time 13:20		Gallons Purged		Replicate/ Code No. DUP-01_GW-062122	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:42	0	0	150	6.98	--	7.56	2.16	1.37	1.02	14.8	-11.5	--	--
10:47	5	5	150	8.19	--	7.1	2.09	0.02	0.27	14.4	-6.5	--	--
10:52	5	10	150	8.83	--	7.16	2	0.02	0.37	14.9	-7.7	--	--
10:57	5	15	150	9.35	--	7.22	1.84	0.02	1.91	14.8	-9.9	--	--
11:02	5	20	150	9.94	--	7.28	1.38	0.02	3.99	15	-13.4	--	--
11:07	5	25	150	10.51	--	7.28	1.41	0.02	3.12	15	-6.5	--	--
11:12	5	30	150	11.05	--	7.25	1.55	0.02	2.37	15	-3.4	--	--
11:17	5	35	150	11.72	--	7.21	1.71	0.02	1.73	14.9	-1.2	--	--
11:22	5	40	150	12.33	--	7.18	1.89	0.02	1.16	14.6	-0.4		

Constituent Sampled	Container	Number	Preservative

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-06	Date	06/21/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	88.0 degrees F and Mostly Clear. The wind is blowing W at 12.8 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	10.62	Total Depth (ft-bmp)	13.91	Water Column (ft) 3.29	Gallons in Well
Purge Start		Pump Intake (ft-bmp)		Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-06_GW-062122	Sampled by Sommer Guy
Sample Time 13:45		Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:23	0	0	150	10.89	--	7.19	1.29	38.8	3.35	15.3	-44.8	--	--
12:28	5	5	150	11.30	--	7.02	1.22	5.7	2.87	14.6	-18	--	--
12:33	5	10	150	11.65	--	7.03	1.18	4.15	2.31	14.8	-8.8	--	--
12:38	5	15	150	11.91	--	7.07	1.17	23.7	1.93	14.8	-9.6	--	--
12:43	5	20	150	12.16	--	7.08	1.16	11.6	1.37	14.8	-12.2	--	--
12:48	5	25	150	12.40	--	7.07	1.15	8.2	1.09	14.5	-17.5	--	--
12:53	5	30	150	12.57	--	7.07	1.14	5.7	0.87	14.7	-20.6	--	--
12:58	5	35	150	12.88	--	7.07	1.11	58.7	0.73	14.8	-23.9	--	--
13:03	5	40	150	13.31	--	7.08	1.13	27.3	1.15	14.7	-23.4	--	--
13:08	5	45	150	13.61	--	7.11	1.15	46	1.86	14.6	-21.6		Mild

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____

Well Locked at Arrival: _____

Condition of Well: _____

Well Locked at Departure: _____

Well Completion: NA _____

Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-09	Date	06/22/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	81.0 degrees F and Mostly Clear. The wind is blowing NW at 11.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	9.51	Total Depth (ft-bmp)	12.94	Water Column (ft) 3.43	Gallons in Well
Purge Start		Pump Intake (ft-bmp)		Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-09_GW-062222	Sampled by Sommer Guy
Sample Time 12:10		Gallons Purged		Replicate/ Code No. DUP-02_GW-062222	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:43	0	0	150	9.81	--	6.79	1.01	15.4	0.74	14.4	-102.5	--	--
09:48	5	5	150	10.37	--	6.75	0.91	4.56	0.25	14.2	-102.4	--	--
09:53	5	10	150	10.91	--	6.74	0.88	6.05	0.37	14.7	-104.9	--	--
09:58	5	15	150	11.46	--	6.76	0.91	8.12	0.33	14.3	-105	--	--
10:03	5	20	150	11.95	--	6.77	0.96	16	0.25	14.1	-104.4	--	--
10:08	5	25	150	12.42	--	6.79	0.99	50.1	9.44	14.8	-105.4		Medium

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-10	Date	06/22/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	82.9 degrees F and Mostly Clear.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	10.55	Total Depth (ft-bmp)	15.76	Water Column (ft) 5.21	Gallons in Well
Purge Start		Pump Intake (ft-bmp)		Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-10_GW-062222	Sampled by Sommer Guy
Sample Time	11:50	Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:45	0	0	150	10.93	--	6.96	2.4	56.9	0.49	15.3	-146.2	--	--
10:50	5	5	150	10.94	--	6.88	2.4	154	8.45	15	-124.3	--	--
10:55	5	10	150	10.95	--	6.87	2.33	16.8	4.23	14.8	-115.3	--	--
11:00	5	15	150	11.31	--	6.9	2.94	8.17	2.95	14.4	-104.9	--	--
11:05	5	20	150	11.61	--	6.91	1.65	18.8	0.56	14.4	-94.8	--	--
11:10	5	25	150	11.85	--	6.91	1.7	20.6	0.41	14.6	-91.8	--	--
11:15	5	30	150	12.08	--	6.92	1.82	21.3	0.35	14.5	-92	--	--
11:20	5	35	150	12.27	--	6.92	1.9	16.3	0.87	14.4	-91.7	--	--
11:25	5	40	150	12.44	--	6.92	1.96	13.3	0.25	14.5	-92.3	--	--
11:30	5	45	150	12.58	--	6.92	2.03	9.5	0.22	14.2	-92.4	--	--
11:35	5	50	150	12.65	--	6.92	2.12	8.6	0.23	14.1	-92.5	--	--
11:40	5	55	150	12.84	--	6.93	2.14	8.71	0.24	14.5	-93	--	--
11:45	5	60	150	13.06	--	6.93	2.16	7.53	0.25	14.2	-91.5		Mild

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-16	Date	06/22/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	84.0 degrees F and Partly Cloudy. The wind is blowing NW at 11.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	10.90	Total Depth (ft-bmp)	15.66	Water Column (ft) 4.76	Gallons in Well
Purge Start		Pump Intake (ft-bmp)		Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-16_GW-062222	Sampled by Sommer Guy
Sample Time 14:00		Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:04	0	0	150	11.02	--	6.76	0.9	56.9	0.79	14.6	-124.5	--	--
13:09	5	5	150	11.14	--	6.69	0.89	332	0.2	14.8	-119.4	--	--
13:14	5	10	150	11.30	--	6.78	0.83	692	0.24	14.6	-113.6	--	--
13:19	5	15	150	11.42	--	6.83	0.78	76.5	0.24	14.1	-105.7	--	--
13:24	5	20	150	11.50	--	6.86	0.78	42	0.21	14.2	-102.7	--	--
13:29	5	25	150	11.58	--	6.89	0.79	14.8	0.16	14.1	-101.6	--	--
13:34	5	30	150	11.64	--	6.88	0.79	6.56	0.15	13.9	-100	--	--
13:39	5	35	150	11.71	--	6.9	0.79	2.04	0.13	14.3	-99.3	--	--
13:44	5	40	150	11.80	--	6.91	0.79	0.45	0.11	13.9	-99.2	--	--
13:49	5	45	150	11.85	--	6.91	0.79	0.76	0.11	13.7	-98.8	--	--
13:54	5	50	150	11.92	--	6.91	0.79	0.02	0.11	13.9	-97.7		Medium

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-19	Date	06/21/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	91.0 degrees F and Mostly Clear. The wind is blowing SW at 12.8 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	10.22	Total Depth (ft-bmp)	16.67	Water Column (ft) 6.45	Gallons in Well
Purge Start		Pump Intake (ft-bmp)		Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-19_062122	Sampled by Sommer Guy
Sample Time 14:55		Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:14	0	0	150	10.46	--	7.03	1.05	143	0.48	15.5	-108.8	--	--
14:19	5	5	150	10.42	--	6.92	1.02	104	0.26	16.2	-99	--	--
14:24	5	10	150	10.44	--	6.9	1	57	0.19	16.3	-98.9	--	--
14:29	5	15	150	10.45	--	6.9	0.99	38.8	0.15	15.9	-102.4	--	--
14:34	5	20	150	10.45	--	6.91	0.99	28.5	0.16	15.7	-106.1	--	--
14:39	5	25	150	10.46	--	6.93	0.99	19.4	0.16	16	-108.9	--	--
14:44	5	30	150	10.46	--	6.94	0.98	14.1	0.15	16.1	-112	--	--
14:49	5	35	150	10.46	--	6.93	0.98	9.2	0.12	16.2	-113.5		Medium

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-20	Date	06/23/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	59.0 degrees F and Mostly Clear. The wind is blowing N at 6.9 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	9.93	Total Depth (ft-bmp)	17.82	Water Column (ft) 7.89	Gallons in Well
Purge Start		Pump Intake (ft-bmp)		Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-20_GW-062322	Sampled by Sommer Guy
Sample Time 08:50		Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
07:57	0	0	150	10.30	--	7.04	5.86	0.98	1.79	13.6	151.7	--	--
08:02	5	5	150	10.88	--	7.12	5.76	0.02	0.52	13.4	77.2	--	--
08:07	5	10	150	11.51	--	7.15	5.74	0.02	0.55	13.3	58.5	--	--
08:12	5	15	150	12.07	--	7.16	52.2	0.02	0.82	13.3	51.9	--	--
08:17	5	20	150	12.68	--	7.16	6.73	0.02	0.92	13.4	48.1	--	--
08:22	5	25	150	13.01	--	7.17	5.73	0.02	0.99	13.4	45.7	--	--
08:27	5	30	150	13.04	--	7.17	5.73	0.02	1.16	13.4	43.2	--	--
08:32	5	35	150	13.24	--	7.17	5.71	0.02	1.08	13.5	41.3	--	--
08:37	5	40	150	13.41	--	7.17	5.7	0.02	0.72	13.4	38.3	--	--
08:42	5	45	150	13.61	--	7.17	5.68	0.02	0.7	13.5	34.7	--	--
08:47	5	50	150	13.77	--	7.17	5.67	0.02	0.69	13.3	31.3		None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-21	Date	06/22/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	87.1 degrees F and Mostly Clear. The wind is blowing NW at 11.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	9.77	Total Depth (ft-bmp)	16.85	Water Column (ft) 7.08	Gallons in Well
Purge Start		Pump Intake (ft-bmp)		Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-21_GW-062222	Sampled by Sommer Guy
Sample Time 15:17		Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:29	0	0	150	9.95	--	6.8	3.97	4.76	0.83	17.3	-14	--	--
14:34	5	5	150	9.90	--	6.87	3.95	12.9	0.69	16.6	11	--	--
14:39	5	10	150	9.92	--	6.91	3.87	3.29	0.38	16.8	12.4	--	--
14:44	5	15	150	9.92	--	6.92	3.94	2.61	0.46	16.3	14.9	--	--
14:49	5	20	150	9.92	--	6.93	3.94	2.11	0.47	16.2	14.3	--	--
14:54	5	25	150	9.92	--	6.95	3.93	0.92	0.28	16.9	13.2	--	--
14:59	5	30	150	9.92	--	6.93	3.94	0.02	0.12	16.3	13.1	--	--
15:04	5	35	150	9.93	--	6.96	3.94	0.02	0.52	16.6	14.4	--	--
15:09	5	40	150	9.93	--	6.96	3.94	0.02	0.51	16.5	10.8	--	--
15:14	5	45	150	9.93	--	6.96	3.94	0.02	0.54	16.5	11.9		Mild

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____

Well Locked at Arrival: _____

Condition of Well: _____

Well Locked at Departure: _____

Well Completion: NA _____

Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-22	Date	06/22/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	79.0 degrees F and Mostly Clear. The wind is blowing W/NW at 10.3 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	9.35	Total Depth (ft-bmp)	17.71	Water Column (ft) 8.36	Gallons in Well
Purge Start		Pump Intake (ft-bmp)	15	Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID NA	Sampled by Sommer Guy
Sample Time	09:18	Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:34	0	0	150	9.38	--	6.75	4.8	14.8	0.02	13.8	31.6	--	--
08:39	5	5	150	9.40	--	7.02	4.77	56.5	0.04	13.3	-17.4	--	--
08:44	5	10	150	9.40	--	7.08	4.75	32.8	0.41	13	-29.4	--	--
08:49	5	15	150	9.40	--	7.11	4.75	15.9	0.3	13.4	-37	--	--
08:54	5	20	150	9.40	--	7.12	4.74	8.69	0.19	13.3	-41.6	--	--
08:59	5	25	150	9.40	--	7.12	4.71	5.06	0.18	13.4	-47.3	--	--
09:04	5	30	150	9.41	--	7.12	4.7	4.1	0.2	13.2	-51.9	--	--
09:09	5	35	150	9.41	--	7.13	4.69	1.09	0.21	13.1	-56	--	--
09:14	5	40	150	9.41	--	7.13	4.65	0.02	0.2	13.1	-58.4		Mild

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-23	Date	06/20/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	77.0 degrees F and Cloudy. The wind is blowing S/SW at 6.9 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	2.75	Total Depth (ft-bmp)	10.34	Water Column (ft) 7.59	Gallons in Well
Purge Start		Pump Intake (ft-bmp)	9.5	Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-23_GW-062022	Sampled by Sommer Guy
Sample Time	15:40	Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:40	0	0	150	3.02	--	6.66	1.37	33.5	0.87	17.5	47	--	--
14:45	5	5	150	3.25	--	6.76	1.24	15.8	0.26	17.2	-12	--	--
14:50	5	10	150	3.42	--	6.79	0.65	13.8	0.12	16.4	-13.8	--	--
14:55	5	15	150	3.52	--	6.79	0.63	14.3	0.05	16.6	-4.2	--	--
15:00	5	20	150	3.47	--	6.8	0.64	9.88	0.02	17.3	-7.6	--	--
15:05	5	25	150	3.52	--	6.8	0.66	8.76	0.01	16.9	-9.8	--	--
15:10	5	30	150	3.52	--	6.81	0.74	3.91	0.01	17.1	-14.7	--	--
15:15	5	35	150	3.71	--	6.82	0.76	3.89	0.01	16.6	-15.3	--	--
15:20	5	40	150	3.82	--	6.82	0.79	2.88	0.01	16.4	-15.3	--	--
15:25	5	45	150	3.84	--	6.84	0.82	2.06	0.01	16.6	-17.7	--	--
15:30	5	50	150	3.90	--	6.86	0.82	0.77	0.01	16.5	-21.3	--	--
15:35	5	55	150	3.92	--	6.87	0.84	0.02	0.01	16.6	-24.2		

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-24	Date	06/21/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	72.0 degrees F and Clear. The wind is blowing W/SW at 8.1 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	2.22	Total Depth (ft-bmp)	7.26	Water Column (ft) 5.04	Gallons in Well
Purge Start		Pump Intake (ft-bmp)	6.5	Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-24_GW-062122	Sampled by Sommer Guy
Sample Time	10:25	Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:37	0	0	150	2.43	--	7.74	1.18	14.7	0.71	18.5	-58.2	--	--
09:42	5	5	150	2.52	--	7.11	1.16	10.8	0.27	19	-40	--	--
09:47	5	10	150	2.66	--	7.01	1.13	10.4	0.22	18.6	-36.1	--	--
09:52	5	15	150	2.76	--	7	1.13	6.75	0.56	19	-34.8	--	--
09:57	5	20	150	2.85	--	7.01	1.12	4.42	0.77	19.5	-32.7	--	--
10:02	5	25	150	2.93	--	7	1.12	1.92	0.69	19.6	-31	--	--
10:07	5	30	150	3.00	--	6.99	1.12	0.48	0.93	19.7	-30.7	--	--
10:12	5	35	150	3.05	--	6.97	1.12	0.79	0.66	19.6	-30.7	--	--
10:17	5	40	150	3.11	--	6.96	1.12	0.02	0.65	19.7	-30.6	--	--
10:22	5	45	150	3.15	--	6.96	1.12	0.02	0.67	19.7	-30.7		

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____

Well Locked at Arrival: _____

Condition of Well: _____

Well Locked at Departure: _____

Well Completion: NA _____

Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-27	Date	06/23/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	64.9 degrees F and Mostly Clear. The wind is blowing N at 11.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	10.42	Total Depth (ft-bmp)	15.62	Water Column (ft) 5.2	Gallons in Well
Purge Start		Pump Intake (ft-bmp)		Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-27_062322	Sampled by Sommer Guy
Sample Time 09:50		Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:15	0	0	150	10.50	--	7.15	2.47	2.41	1.08	13.8	-17.9	--	--
09:20	5	5	150	10.56	--	7.08	2.11	0.02	0.38	13.3	-11.4	--	--
09:25	5	10	150	10.61	--	7.07	2.07	0.02	0.32	13	-15.2	--	--
09:30	5	15	150	10.63	--	7.07	2.09	0.02	0.26	12.9	-18.6	--	--
09:35	5	20	150	10.67	--	7.07	2.11	0.02	0.21	13	-19.2	--	--
09:40	5	25	150	10.70	--	7.07	2.14	0.02	0.2	12.9	-21	--	--
09:45	5	30	150	10.72	--	7.06	2.16	0.02	0.19	13	-21.8		

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-30	Date	06/21/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	72.0 degrees F and Clear. The wind is blowing W/SW at 8.1 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	Well Casing Material NA
Static Water Level (ft-bmp)	2.58	Total Depth (ft-bmp)	8.22	Water Column (ft) 5.64	Gallons in Well
Purge Start		Pump Intake (ft-bmp)	7.5	Purge Method Low-Flow	Purge Equipment Peristaltic
Purge End		Volumes Purged		Sample ID JS-MW-30_GW-062122	Sampled by Sommer Guy
Sample Time	09:18	Gallons Purged		Replicate/ Code No. NA	Sample Type

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:40	0	0	150	2.77	--	7.64	1.21	18.3	0.8	14.7	-22.1	--	--
08:45	5	5	150	2.85	--	6.94	0.92	10.1	0.41	14.8	-31.1	--	--
08:50	5	10	150	2.92	--	6.84	0.83	0.7	0.32	15	-29.8	--	--
08:55	5	15	150	2.93	--	6.88	0.82	0.7	0.36	15.3	-31.5	--	--
09:00	5	20	150	2.94	--	6.91	0.82	0.02	0.41	15.4	-32.5	--	--
09:05	5	25	150	2.96	--	6.94	0.82	0.02	0.34	15.5	-33.6	--	--
09:10	5	30	150	2.99	--	6.95	0.82	0.02	0.36	15.6	-33.3	--	--
09:15	5	35	150	3.00	--	6.86	0.82	0.02	0.35	15.6	-32.5		

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-04	Date	09/16/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	68.0 degrees F and Mostly Cloudy. The wind is blowing W at 5.8 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	8.00	Total Depth (ft-bmp)	13.67	Water Column (ft)	5.67
Purge Start	10:48	Pump Intake (ft-bmp)	11.5	Purge Method	Low-Flow
Purge End	00:40	Volumes Purged	2.17	Sample ID	JS-MW-04_GW-091622
Sample Time	12:35	Gallons Purged	2.00	Replicate/ Code No.	DUP-02_GW-091622
				Well Casing Material	PVC
				Gallons in Well	0.92
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:50	0	0	150	8.28	--	8.84	2.32	15.4	0.78	17.9	-92.1	--	--
10:55	5	5	150	9.10	--	7.4	2.21	0.11	0.03	17.5	-60.7	--	--
11:00	5	10	150	9.82	--	7.3	2.13	0.02	0.19	17.9	-44.4	--	--
11:05	5	15	150	10.51	--	7.32	2.06	0.02	1.5	17.9	-33.8	--	--
11:10	5	20	150	11.20	--	7.29	2.1	0.75	0.86	18.1	-26.4	--	--
11:15	5	25	150	11.90	--	7.26	2.13	0.61	0.54	18.1	-20.8	--	--
11:20	5	30	150	12.59	--	7.24	2.15	0.44	0.29	17.8	-15.7	Clear	Mild

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	6	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-05	Date	09/15/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	69F, Mostly Cloudy, SE 5 mph	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	6.89	Total Depth (ft-bmp)	10.32	Water Column (ft)	3.43
Gallons in Well	0.56				
Purge Start	12:56	Pump Intake (ft-bmp)	8.3	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	14:05	Volumes Purged	5.36	Sample ID	JS-MW-05_GW-091522
Sampled by	Sommer Guy				
Sample Time	14:00	Gallons Purged	3.00	Replicate/ Code No.	NA
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:58	0	0	150	7.23	--	7.77	1.54	58.8	1.23	17.7	-163.3	--	--
13:03	5	5	150	7.54	--	7.14	1.38	2.45	0.4	17.6	-143.4	--	--
13:08	5	10	150	7.71	--	7.08	1.26	2.3	0.11	17.7	-138.5	--	--
13:13	5	15	150	8.10	--	7.08	1.26	2.21	0.03	17.8	-133.3	--	--
13:18	5	20	150	8.23	--	7.07	1.25	2.47	0.11	17.9	-128.1	--	--
13:23	5	25	150	8.53	--	7.07	1.24	1.81	0.52	17.9	-116.1	--	--
13:28	5	30	150	8.75	--	7.07	1.24	1.25	0.74	17.8	-109	--	--
13:33	5	35	150	8.92	--	7.07	1.24	1.81	1.08	17.6	-102.7	--	--
13:38	5	40	150	9.75	--	7.07	1.24	6.7	1.28	17.6	-97	Clear	Strong

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-06	Date	09/15/2022		
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	59.0 degrees F and Mostly Cloudy. The wind is blowing E at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2	Well Casing Material	PVC
Static Water Level (ft-bmp)	13.45	Total Depth (ft-bmp)	13.91	Water Column (ft)	0.4600000000000001	Gallons in Well	0.07
Purge Start		Pump Intake (ft-bmp)	13.8	Purge Method	Low-Flow	Purge Equipment	Peristaltic
Purge End	10:19	Volumes Purged	4.29	Sample ID	NA	Sampled by	Sommer Guy
Sample Time		Gallons Purged	0.30	Replicate/ Code No.	NA	Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:17	0	0	100	13.90	--	7.18	0.65	8.15	0.35	17	-11.3	--	--
10:18	1	1	100	13.82	--	7.33	1.28	6.54	0.06	16.1	-58.2	Clear	Strong

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments: Well purged on 9/15/22 but well had no recharge same day. Check again on 9/16/22 - still no recharge. Sample not collected. Back on 10/4/22. Only .11' of recharge

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-09	Date	09/15/2022		
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	59.0 degrees F and Mostly Cloudy. The wind is blowing E at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2	Well Casing Material	PVC
Static Water Level (ft-bmp)	12.20	Total Depth (ft-bmp)	12.98	Water Column (ft)	0.7800000000000001	Gallons in Well	0.13
Purge Start	09:45	Pump Intake (ft-bmp)	12.7	Purge Method	Low-Flow	Purge Equipment	Peristaltic
Purge End	00:15	Volumes Purged		Sample ID	JS-MW-09_GW-091522	Sampled by	Sommer Guy
Sample Time	12:10	Gallons Purged		Replicate/ Code No.	DUP-01_GW-091522	Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:47	0	0	100	12.52	--	7.05	0.7	107	2.94	16.4	-21.2	--	--
09:50	3	3	100	12.75	--	6.92	1.03	12.2	0.17	15.2	-43.9	--	--
09:53	3	6	100	12.90	--	6.91	1.02	4.82	21	15.4	-57.6	Clear	Strong

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	6	HCL

Comments: Well ran dry while collecting samples. Had to wait 25 minutes for well to recharge

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-10	Date	09/16/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	62.1 degrees F and Mostly Cloudy. The wind is blowing SW at 3.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	12.92	Total Depth (ft-bmp)	15.73	Water Column (ft)	2.81
Purge Start	10:10	Pump Intake (ft-bmp)	14	Purge Method	Low-Flow
Purge End	00:50	Volumes Purged	4.35	Sample ID	JS-MW-10_GW-091622
Sample Time	12:45	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.46
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:12	0	0	125	13.08	--	6.98	2.69	6.17	3.81	18.3	49.5	--	--
10:17	5	5	125	13.52	--	6.95	2.96	6.52	0.08	16.3	-24.8	--	--
10:22	5	10	125	13.92	--	6.96	2.92	3.05	0.03	16.5	-35.7	--	--
10:27	5	15	125	14.42	--	6.97	2.89	3.87	0.01	16.4	-42	--	--
10:32	5	20	125	14.90	--	6.98	2.89	15.6	0.01	16.5	-48.4	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-16	Date	09/15/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	55.9 degrees F and Cloudy. The wind is blowing E at 4.7 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	13.33	Total Depth (ft-bmp)	15.7	Water Column (ft)	2.37
Purge Start	08:29	Pump Intake (ft-bmp)	14.5	Purge Method	Low-Flow
Purge End	09:30	Volumes Purged	7.69	Sample ID	JS-MW-16_GW-091522
Sample Time	09:25	Gallons Purged	3.00	Replicate/ Code No.	JS-MW-16_GW-091522
				Well Casing Material	PVC
				Gallons in Well	0.39
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:31	0	0	150	13.46	--	7.29	1.23	1.72	3.39	15.1	126.6	--	--
08:36	5	5	150	13.65	--	6.93	1.04	1.22	0.28	14.3	1.9	--	--
08:41	5	10	150	13.96	--	6.98	0.89	1.91	1.51	14.3	-21.7	--	--
08:46	5	15	150	14.16	--	7	0.88	2.35	1.33	14.3	-38.6	--	--
08:51	5	20	150	14.36	--	7.01	0.88	3.19	1.33	14.3	-49.3	--	--
08:56	5	25	150	14.55	--	7.01	0.89	2.05	1.03	14.2	-59.3	--	--
09:01	5	30	150	14.74	--	7.01	0.88	1.68	1.15	14.2	-66.2	--	--
09:06	5	35	150	14.93	--	7.02	0.88	1.47	1.16	14.1	-70.6	Clear	Strong

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	9	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-19	Date	09/15/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	61.0 degrees F and Partly Cloudy. The wind is blowing E at 5.8 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	12.98	Total Depth (ft-bmp)	16.71	Water Column (ft)	3.73
Purge Start	10:45	Pump Intake (ft-bmp)	14.5	Purge Method	Low-Flow
Purge End	11:55	Volumes Purged	6.56	Sample ID	JS-MW-19_GW-091522
Sample Time	11:50	Gallons Purged	4.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.61
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:47	0	0	150	13.05	--	7.24	1.05	87.8	1.74	14.7	-19.2	--	--
10:52	5	5	150	13.15	--	7.16	1.05	9.83	1.85	14.6	-14.5	--	--
10:57	5	10	150	13.22	--	7.18	1.06	5.02	1.38	14.7	-17.7	--	--
11:02	5	15	150	13.28	--	7.2	1.06	2.65	1.1	14.7	-22.2	--	--
11:07	5	20	150	13.35	--	7.2	1.06	3.13	0.91	14.6	-24.4	--	--
11:12	5	25	150	13.37	--	7.2	1.05	3.4	0.57	14.6	-26.2	--	--
11:17	5	30	150	13.39	--	7.2	1.05	2.42	0.37	14.6	-27.9	--	--
11:22	5	35	150	13.42	--	7.19	1.05	1.52	0.25	14.7	-29.4	--	--
11:27	5	40	150	13.44	--	7.19	1.05	0.76	0.17	14.7	-32.2	--	--
11:32	5	45	150	13.44	--	7.19	1.04	1.25	0.12	14.7	-35.4	--	--
11:37	5	50	150	13.45	--	7.19	1.04	1.25	0.04	14.7	-38	--	--
11:42	5	55	150	13.45	--	7.19	1.04	0.87	0.01	14.7	-41.7	--	--
11:47	5	60	150	13.45	--	7.19	1.03	0.77	0.02	14.7	-45.2	Clear	Mild

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-20	Date	09/15/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	69F, Mostly Cloudy, SE 5 mph	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	12.28	Total Depth (ft-bmp)	17.85	Water Column (ft)	5.57
Purge Start	14:16	Pump Intake (ft-bmp)	15.5	Purge Method	Low-Flow
Purge End	14:55	Volumes Purged	2.20	Sample ID	JS-MW-20_GW-091522
Sample Time	14:50	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.91
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:18	0	0	200	12.75	--	7.14	6.31	3.09	0.29	17	44.3	--	--
14:23	5	5	150	13.05	--	7.11	6.29	0.89	0.13	17.1	35.3	--	--
14:28	5	10	150	13.18	--	7.14	6.21	0.49	0.9	17.4	30.7	--	--
14:33	5	15	150	13.44	--	7.15	6.17	0.29	1.24	17.4	29.7	--	--
14:38	5	20	150	13.70	--	7.13	6.18	0.3	1.22	17.3	29.6	--	--
14:43	5	25	150	13.90	--	7.12	6.19	0.41	1.2	17	29.9	--	--
14:48	5	30	150	14.20	--	7.12	6.2	0.63	1.19	17	30.4	Clear	Medium

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-21	Date	09/14/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	75.9 degrees F and Partly Cloudy. The wind is blowing W/NW at 9.2 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	12.42	Total Depth (ft-bmp)	16.88	Water Column (ft)	4.46
Purge Start	15:15	Pump Intake (ft-bmp)	14.5	Purge Method	Low-Flow
Purge End	15:55	Volumes Purged	2.78	Sample ID	JS-MW-21_GW-091422
Sample Time	15:50	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.72
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
15:18	0	0	200	12.50	--	7.19	3.67	15.4	1.65	17.5	11.6	--	--
15:23	5	5	200	12.55	--	7.14	3.53	8.19	0.34	17.3	9.8	--	--
15:28	5	10	200	12.55	--	7.13	3.52	3.04	0.03	17.2	9.3	--	--
15:33	5	15	200	12.55	--	7.13	3.51	2.26	0.01	17.1	8.9	--	--
15:38	5	20	200	12.57	--	7.13	3.51	1.63	0.01	17	9	--	--
15:43	5	25	200	12.58	--	7.13	3.51	1.66	0.01	17	8.8	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-22	Date	09/14/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	75.9 degrees F and Partly Cloudy. The wind is blowing W/NW at 9.2 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	11.99	Total Depth (ft-bmp)	17.73	Water Column (ft)	5.74
Purge Start	14:16	Pump Intake (ft-bmp)	15.5	Purge Method	Low-Flow
Purge End	14:55	Volumes Purged	2.15	Sample ID	JS-MW-22_GW-091422
Sample Time	14:50	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.93
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:18	0	0	175	11.99	--	7.13	5.07	11.7	0.25	18.2	-13.3	--	--
14:23	5	5	175	11.99	--	7.13	5.06	11	0.02	18.2	-37.4	--	--
14:28	5	10	175	11.99	--	7.14	5.03	7.86	0.02	18.3	-50.4	--	--
14:33	5	15	175	11.99	--	7.15	5	5.16	0.01	18.2	-56.1	--	--
14:38	5	20	175	11.99	--	7.15	4.92	3.18	0.02	18.1	-59.3	--	--
14:43	5	25	175	11.99	--	7.15	4.86	2.15	0.02	18.3	-61	--	--
14:48	5	30	175	11.99	--	7.15	4.82	2.51	0.02	18.3	-62.4	Clear	Mild

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-23	Date	09/14/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	72.0 degrees F and Mostly Clear. The wind is blowing W/NW at 9.2 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	4.33	Total Depth (ft-bmp)	10.35	Water Column (ft)	6.02
Purge Start	13:12	Pump Intake (ft-bmp)	8.1	Purge Method	Low-Flow
Purge End	14:05	Volumes Purged	3.06	Sample ID	JS-MW-23_GW-091422
Sample Time	14:00	Gallons Purged	3.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.98
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:15	0	0	200	4.78	--	7.19	1.02	2.58	0.31	20.7	6.1	--	--
13:20	5	5	200	5.02	--	7.16	0.99	2.4	0.07	21	-45.7	--	--
13:25	5	10	150	5.06	--	7.14	0.93	2.23	0.28	21.4	-70.1	--	--
13:30	5	15	150	5.12	--	7.11	0.82	1.78	0.49	21.2	-68.7	--	--
13:35	5	20	150	5.12	--	7.1	0.83	1.41	0.48	21.4	-69.3	--	--
13:40	5	25	150	5.12	--	7.09	0.85	1.02	0.37	21.5	-71.5	--	--
13:45	5	30	150	5.13	--	7.09	0.88	0.56	0.34	21.3	-73.5	--	--
13:50	5	35	150	5.20	--	7.09	0.89	0.58	0.33	21.1	-74.9	--	--
13:55	5	40	150	5.26	--	7.09	0.9	0.56	0.32	21.2	-75.7	Clear	Mild

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-24	Date	09/16/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	57.9 degrees F and Patchy Fog. The wind is blowing west at 4 mph	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	3.85	Total Depth (ft-bmp)	7.26	Water Column (ft)	3.41
Purge Start	09:11	Pump Intake (ft-bmp)	5.5	Purge Method	Low-Flow
Purge End	10:00	Volumes Purged	5.45	Sample ID	JS-MW-24_GW-091622
Sample Time	09:55	Gallons Purged	3.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.55
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:13	0	0	200	4.09	--	7.03	1.35	10.5	1.36	19.7	173	--	--
09:18	5	5	200	4.38	--	7.03	1.14	2.74	1.02	20.3	133.2	--	--
09:23	5	10	150	4.60	--	7.04	1.13	3.42	0.72	20.4	120.5	--	--
09:28	5	15	150	4.80	--	7.04	1.13	2.32	0.36	20.5	109.9	--	--
09:33	5	20	150	5.00	--	7.04	1.13	0.87	0.1	20.5	98.4	--	--
09:38	5	25	150	5.17	--	7.05	1.13	0.42	0.06	20.6	91.2	--	--
09:43	5	30	150	5.33	--	7.05	1.13	0.87	0.05	20.6	85.4	--	--
09:48	5	35	150	5.50	--	7.06	1.13	0.32	0.05	20.6	82.5	--	--
09:53	5	40	150	5.68	--	7.06	1.13	0.76	0.05	20.6	80.7	Clear	Mild

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-27	Date	09/16/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	71.1 degrees F and Mostly Cloudy. The wind is blowing SW at 4.7 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	11.49	Total Depth (ft-bmp)	15.66	Water Column (ft)	4.17
Purge Start	11:45	Pump Intake (ft-bmp)	13.5	Purge Method	Low-Flow
Purge End	12:25	Volumes Purged	2.94	Sample ID	JS-MW-27_GW-091622
Sample Time	12:20	Gallons Purged	2.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.68
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:47	0	0	150	11.54	--	7.04	3.38	0.87	0.8	17.7	-67.2	--	--
11:52	5	5	150	11.57	--	7.07	2.95	2.07	0.01	16.6	-68.6	--	--
11:57	5	10	150	11.60	--	7.09	2.76	1.92	0.01	16.9	-53.7	--	--
12:02	5	15	150	11.65	--	7.1	2.69	1.29	0.01	16.8	-47.8	--	--
12:07	5	20	150	11.65	--	7.1	2.61	1.03	0.01	16.5	-44	--	--
12:12	5	25	150	11.69	--	7.09	2.6	0.36	0.01	16.6	-40.9	--	--
12:17	5	30	150	11.73	--	7.1	2.61	0.92	0.01	16.9	-39.2	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Needs repairs	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-30	Date	09/14/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	68.0 degrees F and Clear. The wind is blowing W/NW at 8.1 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	4.23	Total Depth (ft-bmp)	8.22	Water Column (ft)	3.99
Purge Start	11:58	Pump Intake (ft-bmp)	6.5	Purge Method	Low-Flow
Purge End	01:00	Volumes Purged	6.15	Sample ID	JS-MW-30_GW-091422
Sample Time	12:55	Gallons Purged	4.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.65
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:00	0	0	125	4.30	--	6.93	1.61	16.1	0.84	18	89.9	--	--
12:05	5	5	150	4.39	--	6.91	1.41	7.34	0.95	17.8	45.9	--	--
12:10	5	10	150	4.62	--	6.94	1.32	3.85	0.54	17.8	32.8	--	--
12:15	5	15	150	4.81	--	6.95	1.18	1.38	0.87	18	31.7	--	--
12:20	5	20	150	4.94	--	6.95	1.24	0.72	0.29	17.9	32.5	--	--
12:25	5	25	150	5.08	--	6.95	1.34	0.65	0.24	17.9	33	--	--
12:30	5	30	150	5.24	--	6.95	1.39	0.67	0.16	17.9	33.6	--	--
12:35	5	35	150	5.36	--	6.95	1.43	0.56	0.07	17.9	33.8	--	--
12:40	5	40	150	5.47	--	6.96	1.43	0.51	0.06	18	34.1	--	--
12:45	5	45	150	5.55	--	6.96	1.42	0.49	0.06	18	33.8	--	--
12:50	5	50	150	5.64	--	6.97	1.42	0.79	0.06	18	33.5	Clear	None

Constituent Sampled	Container	Number	Preservative
Other,VOCs SW-846 8260C	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: 2035

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-04	Date	12/05/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	34.0 degrees F and Mostly Cloudy. The wind is blowing S at 6.9 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	8.72	Total Depth (ft-bmp)	13.65	Water Column (ft)	4.93
Purge Start	12:55	Pump Intake (ft-bmp)	11.65	Purge Method	Low-Flow
Purge End	13:17	Volumes Purged	1.88	Sample ID	JS-MW-04_GW-120522
Sample Time	15:00	Gallons Purged	1.50	Replicate/ Code No.	DUP-02_GW-120522
				Well Casing Material	PVC
				Gallons in Well	0.8
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:56	0	0	150	8.96	--	8.93	2.31	40.5	3.14	12.9	-4.7	--	--
13:01	5	5	150	9.49	--	7.33	2.13	3.73	2.75	12.7	36.2	--	--
13:06	5	10	150	10.13	--	7.15	2.07	5.48	2.12	12.7	45.7	--	--
13:11	5	15	150	10.70	--	7.12	2.08	3.86	1.71	12.6	49.1	--	--
13:16	5	20	150	11.30	--	7.13	2.1	3.23	1.32	12.7	54.2	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	6	HCL

Comments: Well ran dry 22 minutes into purging

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-05	Date	12/06/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	39F, E 4 mph, 72% humidity	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	8.19	Total Depth (ft-bmp)	10.3	Water Column (ft)	2.11
Purge Start	09:45	Pump Intake (ft-bmp)	9.5	Purge Method	Low-Flow
Purge End	09:52	Volumes Purged	2.94	Sample ID	JS-MW-05_GW-120622
Sample Time	14:05	Gallons Purged	1.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.34
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:47	0	0	150	8.70	--	7.25	1.28	4.31	5.39	12.2	-188.5	--	--
09:52	5	5	150	9.35	--	6.83	1.18	2.35	4.46	12.2	-143.8	Clear	Strong

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments: Well ran dry 10 minutes into purging

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-10	Date	12/05/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	34.0 degrees F and Mostly Cloudy. The wind is blowing S at 6.9 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
				Well Casing Material	PVC
Static Water Level (ft-bmp)	13.85	Total Depth (ft-bmp)	15.74	Water Column (ft)	1.89
				Gallons in Well	0.31
Purge Start	12:15	Pump Intake (ft-bmp)	15	Purge Method	Low-Flow
				Purge Equipment	Peristaltic
Purge End	12:25	Volumes Purged	1.61	Sample ID	JS-MW-10_GW-120522
				Sampled by	Sommer Guy
Sample Time	14:45	Gallons Purged	0.50	Replicate/ Code No.	NA
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:18	0	0	150	14.37	--	6.94	2.65	26.1	0.81	11.4	-30	--	--
12:23	5	5	150	14.68	--	6.88	2.65	80.3	0.52	11.9	-67.4	Clear	Mild

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments: Well ran dry 10 minutes into purging

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-16	Date	12/06/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	39F, E 4 mph, 72% humidity	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	13.78	Total Depth (ft-bmp)	15.85	Water Column (ft)	2.07
Gallons in Well	0.34				
Purge Start	09:12	Pump Intake (ft-bmp)	14.8	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	09:30	Volumes Purged	2.94	Sample ID	JS-MW-16_GW-120622
Sampled by	Sommer Guy				
Sample Time	14:15	Gallons Purged	1.00	Replicate/ Code No.	JS-MW-16_GW-120622
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:14	0	0	150	13.92	--	6.86	0.9	7.37	1.28	10.8	-110.4	--	--
09:19	5	5	150	14.10	--	6.82	0.87	6.98	0.37	12	-123	--	--
09:24	5	10	150	14.32	--	6.85	0.85	1.46	0.24	12.1	-119	--	--
09:29	5	15	150	14.45	--	6.84	0.86	0.58	0.37	11.9	-121.6	Clear	Medium

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	9	HCL

Comments: Well ran dry 18 minutes into purging

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-19	Date	12/06/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	39F, Cloudy, E 4mph, 74% humidity	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	14.41	Total Depth (ft-bmp)	16.67	Water Column (ft)	2.26
Purge Start	10:18	Pump Intake (ft-bmp)	15.6	Purge Method	Low-Flow
Purge End	11:07	Volumes Purged	2.70	Sample ID	JS-MW-19_GW-120622
Sample Time	14:30	Gallons Purged	1.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.37
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:20	0	0	150	14.50	--	8.15	1.09	12.4	1.22	12.3	-159.9	--	--
10:25	5	5	150	14.64	--	6.96	1	10.4	0.42	12.5	-127	--	--
10:30	5	10	150	14.74	--	6.92	0.97	4.84	0.25	12.5	-118.5	--	--
10:35	5	15	150	14.85	--	6.98	1	39	0.22	12.4	-125.7	--	--
10:40	5	20	150	14.94	--	6.99	0.97	174	0.22	12.5	-114.4	--	--
10:45	5	25	150	14.98	--	6.99	0.96	310	0.21	12.3	-109	--	--
10:50	5	30	150	15.04	--	6.98	0.96	160	0.33	12.3	-106.3	--	--
10:55	5	35	150	15.13	--	7.01	0.96	277	0.37	12.4	-102.7	--	--
11:00	5	40	150	15.26	--	7.03	0.96	312	0.49	12.4	-98	--	--
11:05	5	45	150	15.38	--	7.01	0.96	297	0.58	12.5	-92.3	Clear then cloudy	Mild

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments: High turbidity. Well ran dry 49 minutes into purging

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival:
Condition of Well: Good condition	Well Locked at Departure:
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-20	Date	12/07/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	42.1 degrees F and Haze. The wind is blowing E/NE at 3.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	13.19	Total Depth (ft-bmp)	17.82	Water Column (ft)	4.63
Purge Start	11:31	Pump Intake (ft-bmp)	15.8	Purge Method	Low-Flow
Purge End	12:11	Volumes Purged	4.00	Sample ID	JS-MW-20_GW-120722
Sample Time	12:10	Gallons Purged	3.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.75
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:33	0	0	150	13.32	--	8.11	7.18	1.47	1.08	13.5	88.2	--	--
11:38	5	5	150	13.60	--	7.32	7.26	1.83	0.34	13.9	96.1	--	--
11:43	5	10	150	13.90	--	7.13	7.14	2.24	0.24	14.1	99.2	--	--
11:48	5	15	150	14.20	--	7.06	7.14	0.02	0.17	14	101.7	--	--
11:53	5	20	150	14.50	--	7.03	7.19	0.12	0.17	14.1	101.1	--	--
11:58	5	25	150	14.83	--	7.01	7.23	1.22	0.16	14.1	100.8	--	--
12:03	5	30	150	15.16	--	7	7.22	0.54	0.16	14.1	96.9	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival:
Condition of Well: Good condition	Well Locked at Departure:
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-21	Date	12/06/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	39.9 degrees F and Cloudy. The wind is blowing E at 11.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
				Well Casing Material	PVC
Static Water Level (ft-bmp)	13.89	Total Depth (ft-bmp)	16.87	Water Column (ft)	2.98
				Gallons in Well	0.48
Purge Start	11:27	Pump Intake (ft-bmp)	15.3	Purge Method	Low-Flow
				Purge Equipment	Peristaltic
Purge End	12:17	Volumes Purged	6.25	Sample ID	JS-MW-21_GW-120622
				Sampled by	Sommer Guy
Sample Time	12:15	Gallons Purged	3.00	Replicate/ Code No.	DUP-01_GW-120622
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:28	0	0	150	13.99	--	8.2	3.37	6.98	2.43	13.2	-49.5	--	--
11:33	5	5	150	14.04	--	7.14	3.27	35	1.99	13.6	-26.8	--	--
11:38	5	10	150	14.05	--	7.03	3.3	15.4	1.28	13.4	-15.6	--	--
11:43	5	15	150	14.07	--	7.01	3.32	3.94	1.39	13.6	-4.6	--	--
11:48	5	20	150	14.07	--	7	3.33	2.04	1.34	13.5	1.3	--	--
11:53	5	25	150	14.07	--	7	3.33	0.9	1.19	13.6	5.4	--	--
11:58	5	30	150	14.07	--	7.01	3.34	0.32	1.04	13.6	8.1	--	--
12:03	5	35	150	14.07	--	7	3.34	0.02	0.78	13.7	10.5	--	--
12:08	5	40	150	14.07	--	7.01	3.35	0.02	0.79	13.5	10.9	--	--
12:13	5	45	150	14.07	--	7.01	3.35	0.02	0.75	13.6	11.8	Clear	Mild

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	6	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival:
Condition of Well: Good condition	Well Locked at Departure:
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-22	Date	12/05/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	36.0 degrees F and Cloudy. The wind is blowing S at 5.8 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	13.45	Total Depth (ft-bmp)	17.7	Water Column (ft)	4.25
Purge Start	13:50	Pump Intake (ft-bmp)	16	Purge Method	Low-Flow
Purge End	14:33	Volumes Purged	4.35	Sample ID	JS-MW-22_GW-120522
Sample Time	14:30	Gallons Purged	3.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.69
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:52	0	0	150	13.45	--	7.96	5.58	67.7	0.91	13.1	-145.4	--	--
13:57	5	5	150	13.46	--	7.23	5.57	32.4	0.21	13.3	-126.6	--	--
14:02	5	10	150	13.46	--	7.1	5.56	27.1	0.16	13.5	-111.3	--	--
14:07	5	15	150	13.46	--	7.07	5.53	17.8	0.17	13.4	-104.1	--	--
14:12	5	20	150	13.46	--	7.06	5.51	13.4	0.15	13.4	-100	--	--
14:17	5	25	150	13.46	--	7.06	5.48	14.2	0.19	13.4	-96.3	--	--
14:22	5	30	150	13.46	--	7.07	5.45	7.96	0.18	13.3	-94.2	--	--
14:27	5	35	150	13.46	--	7.07	5.42	3.53	0.18	13.4	-92.2	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-23	Date	12/07/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	39.0 degrees F and Fog/Mist. The wind is blowing N/NE at 4.7 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	4.73	Total Depth (ft-bmp)	10.34	Water Column (ft)	5.61
Purge Start	08:33	Pump Intake (ft-bmp)	8.3	Purge Method	Low-Flow
Purge End	09:11	Volumes Purged	3.30	Sample ID	JS-MW-23_GW-120722
Sample Time	09:10	Gallons Purged	3.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.91
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:35	0	0	150	5.12	--	7.34	0.95	12.2	1.37	11.8	104.4	--	--
08:40	5	5	150	5.52	--	7.05	0.92	15.3	0.37	11.5	-12.2	--	--
08:45	5	10	150	5.47	--	7	0.93	11.1	0.29	11.5	-47.6	--	--
08:50	5	15	150	5.48	--	6.99	0.95	7.45	0.21	11.5	-60.9	--	--
08:55	5	20	150	5.48	--	7.01	0.95	4.49	0.14	11.5	-69.6	--	--
09:00	5	25	150	5.48	--	7	0.96	4.66	0.15	11.5	-73	--	--
09:05	5	30	150	5.48	--	7.02	0.96	2.75	0.14	11.5	-76.1	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-24	Date	12/07/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	42F, cloudy, N 2 mph	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Well Casing Material	PVC				
Static Water Level (ft-bmp)	4.16	Total Depth (ft-bmp)	7.25	Water Column (ft)	3.09
Gallons in Well	0.5				
Purge Start	10:44	Pump Intake (ft-bmp)	6	Purge Method	Low-Flow
Purge Equipment	Peristaltic				
Purge End	11:17	Volumes Purged	4.00	Sample ID	JS-MW-24_GW-120722
Sampled by	Sommer Guy				
Sample Time	12:25	Gallons Purged	2.00	Replicate/ Code No.	NA
Sample Type	Grab				

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:46	0	0	150	4.38	--	7.08	1.1	1.3	3.29	10.7	108.7	--	--
10:51	5	5	150	4.62	--	7.05	1.08	1.47	2.48	10.7	110	--	--
10:56	5	10	150	4.92	--	7	1.08	0.61	2.2	10.7	111.7	--	--
11:01	5	15	150	5.18	--	7.01	1.08	1.12	1.74	10.7	110.4	--	--
11:06	5	20	150	5.45	--	7.01	1.08	1.49	1.05	10.9	108.7	--	--
11:11	5	25	150	5.70	--	7.02	1.07	4.76	0.78	11	107.5	--	--
11:16	5	30	150	5.95	--	7.03	1.07	4.86	0.59	11.1	106.1	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments: Well ran dry 33 minutes into purging

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-27	Date	12/06/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	39.9 degrees F and Cloudy. The wind is blowing E at 11.4 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
				Well Casing Material	PVC
Static Water Level (ft-bmp)	12.31	Total Depth (ft-bmp)	15.74	Water Column (ft)	3.43
				Gallons in Well	0.56
Purge Start	12:43	Pump Intake (ft-bmp)	14	Purge Method	Low-Flow
				Purge Equipment	Peristaltic
Purge End	13:56	Volumes Purged	5.36	Sample ID	JS-MW-27_GW-120622
				Sampled by	Sommer Guy
Sample Time	13:55	Gallons Purged	3.00	Replicate/ Code No.	NA
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:44	0	0	150	12.38	--	7.88	3.82	15.1	1.17	13	-106.2	--	--
12:49	5	5	150	12.44	--	6.97	3.7	45.7	0.36	13.4	-83.5	--	--
12:54	5	10	150	12.47	--	6.95	3.62	179	0.36	13.3	-71.2	--	--
12:59	5	15	150	12.51	--	6.93	3.71	141	0.42	13.2	-65.7	--	--
13:04	5	20	150	12.54	--	6.94	3.77	114	0.39	13.3	-60.2	--	--
13:09	5	25	150	12.57	--	6.94	3.81	130	0.31	13.4	-55	--	--
13:14	5	30	150	12.58	--	6.94	3.87	120	0.29	13.4	-51.1	--	--
13:19	5	35	150	12.60	--	6.94	3.93	99.7	0.3	13.4	-46.3	--	--
13:24	5	40	150	12.62	--	6.94	3.98	57.5	0.34	13.5	-41.1	--	--
13:29	5	45	150	12.62	--	6.94	4.01	47.6	0.35	13.4	-39.4	--	--
13:34	5	50	150	12.62	--	6.94	4.03	23.2	0.32	13.4	-36.5	--	--
13:39	5	55	150	12.63	--	6.94	4.05	16.9	0.34	13.5	-34.3	--	--
13:44	5	60	150	12.63	--	6.94	4.05	13.1	0.33	13.5	-33.6	--	--
13:49	5	65	150	12.63	--	6.94	4.06	6.1	0.35	13.5	-36.1	Clear then cloudy then clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments: High turbidity

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass

Well Locked at Arrival:

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Groundwater Sampling Form



Condition of Well: Good condition

Well Locked at Departure:

Well Completion: Flush mount

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius

Groundwater Sampling Form



Project Number	30112891	Well ID	JS-MW-30	Date	12/07/2022
Project Name/Location	RACER Pontiac North Campus 2022		Weather(°F)	39.9 degrees F and Fog/Mist. The wind is blowing N at 4.7 mph.	
Measuring Pt. Description	Top of Inner Casing	MP Elevation		Casing Diameter (in)	2
Static Water Level (ft-bmp)	4.63	Total Depth (ft-bmp)	8.22	Water Column (ft)	3.59
Purge Start	09:24	Pump Intake (ft-bmp)	6.5	Purge Method	Low-Flow
Purge End	10:22	Volumes Purged	5.17	Sample ID	JS-MW-30_GW-120722
Sample Time	10:20	Gallons Purged	3.00	Replicate/ Code No.	NA
				Well Casing Material	PVC
				Gallons in Well	0.58
				Purge Equipment	Peristaltic
				Sampled by	Sommer Guy
				Sample Type	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:26	0	0	150	4.75	--	8.29	1.67	5.8	4.29	11.1	-20.5	--	--
09:31	5	5	150	4.95	--	7.32	1.59	8.05	2.86	11.3	31.3	--	--
09:36	5	10	150	5.17	--	7.06	1.57	2.62	1.93	11.3	47.7	--	--
09:41	5	15	150	5.35	--	6.96	1.58	0.99	1.52	11.3	59.2	--	--
09:46	5	20	150	5.40	--	6.99	1.59	1.52	1.55	10.9	64.4	--	--
09:51	5	25	150	5.58	--	6.94	1.6	0.02	1.14	11.5	71.8	--	--
09:56	5	30	150	5.73	--	6.92	1.61	0.62	0.81	11.5	76.7	--	--
10:01	5	35	150	5.87	--	6.9	1.62	0.48	0.55	11.5	80.9	--	--
10:06	5	40	150	5.97	--	6.9	1.62	0.49	0.47	11.5	83.7	--	--
10:11	5	45	150	6.05	--	6.91	1.63	0.26	0.47	11.5	86.3	--	--
10:16	5	50	150	6.13	--	6.91	1.63	1.5	0.44	11.5	88.7	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	3	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot
 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

Well Information

Well Location: In grass	Well Locked at Arrival: yes
Condition of Well: Good condition	Well Locked at Departure: yes
Well Completion: Flush mount	Key Number To Well: NA

ft-bmp = feet below measuring point
 in = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius

Appendix C

Soil Boring and Well Construction Logs

Soil Boring Log

Sheet: 1 of 1

Project Name: RACER Pontiac North Campus
Project Number: 30112891
Project Location: Pontiac, MI

Date Started: 12/19/2022 Logger: Christina Weaver
Date Completed: 12/19/2022 Editor: Christina Weaver
Weather Conditions: 24° F, Windy/Snow

Depth (feet)	Sample Interval	Blow Counts	Recovery (in.)	Sample ID	PID (ppm)	USCS Class	Description	Construction Details	Well
1				JS-SB-31_121922(1-2) @ 0905	0.0		(0.0-0.5') TOPSOIL, GRASS.		
2					0.0		(0.5-3.5') SAND, fine to medium, subrounded to subangular; trace pebbles, small, subrounded to subangular; well sorted; dry; brown (10YR 5/3).		
3			60		0.0				
4					0.0		(3.5-5.0') CLAY, medium plasticity, slow dilatancy; little sand, fine to medium, subrounded to subangular; soft; dry; brown (10YR 5/3).		
5				JS-SB-31_121922(4-5) @ 0907	0.0				
6				JS-SB-31_121922 (7-8) @ 0913	0.0		(5.0-5.5') SAND, fine to medium, subrounded to subangular; trace pebbles, small to medium, subrounded to subangular; well sorted; moist; brownish yellow (10YR 6/6).		
7					0.0		(5.5-12.0') CLAY, medium to high plasticity, slow dilatancy; trace pebbles, small, subrounded to subangular; trace silt; soft; dry to moist; light yellowish brown (10YR 6/4) to grayish brown (10YR 5/2).		
8			44		0.0				
9					0.0				
10				JS-SB-31_121922 (9-10) @ 0915	0.0				
11				JS-SB-31_121922 (11-12) @ 0918	0.0				
12					0.0				
13			60		0.0		Note: Boring appears wet at 12.0' bgs. (12.0-12.8') SILT, nonplastic, rapid dilatancy; some sand, fine to medium, subrounded to subangular; wet; soft; dark gray (10YR 4/1).		
14					0.0		(12.8-15.0') CLAY, high plasticity, slow dilatancy; little sand, fine to medium, subrounded to subangular; soft; moist to wet; light brownish gray (10YR 6/2).		
15					0.0				
16							End of boring at 15.0' bgs.		
17									
18									
19									
20									

Drilling Co.: Fibertec
Driller: Nick Wiseman
Drilling Method: Hand Auger / Direct Push
Drilling Fluid: None
Remarks: ' / ft = feet; " / in = inch; bgs = below ground surface; @ = at.

Sampling Method: 5' Macrocore
Sampling Interval: Continuous
Water Level Start (ft. bgs.): 12
Water Level Finish (ft. bgs.): NA
Converted to Well: ☐ Yes ☒ No
Surface Elev.: NM
North Coor.:
East Coor.:

Soil Boring Log

Sheet: 1 of 1

Project Name: RACER Pontiac North Campus Date Started: 12/19/2022 Logger: Christina Weaver
Project Number: 30112891 Date Completed: 12/19/2022 Editor: Christina Weaver
Project Location: Pontiac, MI Weather Conditions: 25° F, Windy

Depth (feet)	Sample Interval	Blow Counts	Recovery (in.)	Sample ID	PID (ppm)	USCS Class	Description	Construction Details	Well
1					0.0		(0.0-0.5') TOPSOIL, GRASS.		
2			60		0.0		(0.5-3.5') SAND, fine to medium, subrounded to subangular; trace pebbles, small, subrounded to subangular; well sorted; dry; brown (10YR 5/3).		
3					0.0				
4					0.0		(3.5-5.0') CLAY, medium plasticity, slow dilatancy; little sand, fine to medium, subrounded to subangular; soft; dry; brown (10YR 5/3).		
5					0.0				
6			60		0.0		(5.0-5.5') SAND, fine to medium, subrounded to subangular; trace pebbles, small to medium, subrounded to subangular; well sorted; moist; brownish yellow (10YR 6/6).		
7					0.0		(5.5-12.0') CLAY, medium to high plasticity, slow dilatancy; trace pebbles, small, subrounded to subangular; trace silt; soft; dry to moist; light yellowish brown (10YR 6/4) to grayish brown (10YR 5/2).		
8					0.0				
9					0.0				
10					0.0				
11					0.0				
12			60	JS-SB-31A_121922 (12-13) @ 1135	5.3		Note: Boring appears wet at 12.0' bgs. (12.0-12.8') SILT, nonplastic, rapid dilatancy; some sand, fine to medium, subrounded to subangular; wet; soft; dark gray (10YR 4/1).		
13				JS-SB-31A_121922 (13-14) @ 1130	0.0		(12.8-15.0') CLAY, high plasticity, slow dilatancy; little sand, fine to medium, subrounded to subangular; soft; moist to wet; light brownish gray (10YR 6/2).		
14					0.0				
15					0.0		End of boring at 15.0' bgs.		
16									
17									
18									
19									
20									

Drilling Co.: Fibertec Sampling Method: 5' Macrocore
Driller: Nick Wiseman Sampling Interval: Continuous
Drilling Method: Hand Auger / Direct Push Water Level Start (ft. bgs.): 12
Drilling Fluid: None Water Level Finish (ft. btoc.): NA
Remarks: ' / ft = feet; " / in = inch; bgs = below ground Converted to Well: ☐ Yes ☒ No
surface: @ = at. Surface Elev.: NM
North Coor: _____
East Coor: _____

Soil Boring Log

Sheet: 1 of 1

Project Name: RACER Pontiac North Campus Date Started: 12/19/2022 Logger: Christina Weaver
Project Number: 30112891 Date Completed: 12/19/2022 Editor: Christina Weaver
Project Location: Pontiac, MI Weather Conditions: 25° F, Windy

Depth (feet)	Sample Interval	Blow Counts	Recovery (in.)	Sample ID	PID (ppm)	USCS Class	Description	Construction Details	Well
1				JS-SB-32_121922(1-2) @ 0957	0.0		(0.0-0.5') TOPSOIL, GRASS.		
2			60		0.0		(0.5-3.5') SAND, fine to medium, subrounded to subangular; trace pebbles, small, subrounded to subangular; well sorted; dry; brown (10YR 5/3).		
3				JS-SB-32_121922(3-4) @ 0958	0.0				
4					0.0		(3.5-5.0') CLAY, medium plasticity, slow dilatancy; little sand, fine to medium, subrounded to subangular; trace pebbles, small, subrounded to subangular; soft; dry; brown (10YR 5/3).		
5				JS-SB-32_121922(5-6) @ 0959	0.0		(5.0-5.5') SAND, fine to medium, subrounded to subangular; trace pebbles, small to medium, subrounded to subangular; well sorted; moist; brownish yellow (10YR 6/6).		
6			60	JS-SB-32_121922(7-8) @ 1000	0.0		(5.5-12.0') CLAY, medium to high plasticity, slow dilatancy; trace sand, medium, subrounded to subangular; trace pebbles, small, subrounded to subangular; soft to medium stiff; dry to moist; grayish brown (10YR 5/2).		
7					0.0				
8					0.0				
9				JS-SB-32_121922 (9-10) @ 1003	0.0				
10				JS-SB-32_121922 (10-11) @ 1005	16.8				
11				JS-SB-32_121922 (11-12) @ 1010	98.3				
12			60	JS-SB-32_121922 (12-13) @ 1013	220.8		Note: Boring appears wet and has a strong odor at 12.0' bgs.		
13				JS-SB-32_121922 (13-14) @ 1015 and DUP-01_121922	15.7		(12.0-12.5') SILT, medium plasticity, slow dilatancy; some clay; trace sand, fine to medium, subrounded to subangular; soft; wet; dark grayish brown (10YR 5/2).		
14					13.2		(12.5-15.0') CLAY, high plasticity, slow to no dilatancy; little sand, fine to medium, subrounded to subangular; trace pebbles, small, subrounded to subangular; soft; moist to wet; brown (10YR 5/3).		
15							End of boring at 15.0' bgs.		
16									
17									
18									
19									
20									

Drilling Co.: Fibertec Sampling Method: 5' Macrocore
Driller: Nick Wiseman Sampling Interval: Continuous
Drilling Method: Hand Auger / Direct Push Water Level Start (ft. bgs.): 12
Drilling Fluid: None Water Level Finish (ft. btoc.): NA
Remarks: ' / ft = feet; " / in = inch; bgs = below ground Converted to Well: ☐ Yes ☒ No
surface: @ = at. Surface Elev.: NM
North Coor:
East Coor:

Soil Boring Log

Sheet: 1 of 1

Project Name: RACER Pontiac North Campus Date Started: 12/19/2022 Logger: Christina Weaver
Project Number: 30112891 Date Completed: 12/19/2022 Editor: Christina Weaver
Project Location: Pontiac, MI Weather Conditions: 25° F, Windy

Depth (feet)	Sample Interval	Blow Counts	Recovery (in.)	Sample ID	PID (ppm)	USCS Class	Description	Construction Details	Well
1				JS-SB-33_121922(1-2) @ 1048 with MS/MSD	0.0		(0.0-0.5') TOPSOIL, GRASS.		
2			60		0.0		(0.5-4.0') SAND, fine to medium, subrounded to subangular; trace pebbles, small, subrounded to subangular; well sorted; dry; brown (10YR 5/3).		
3				JS-SB-33_121922(3-4) @ 1050	0.0				
4					0.0				
5					0.0		(4.0-4.5') CLAY, medium plasticity, slow dilatancy; little sand, subrounded to subangular; soft; dry; brown (10YR 5/3).		
6				JS-SB-33_121922(5-6) @ 1055	0.0		(4.5-5.0') SAND, fine to medium, subrounded to subangular; trace pebbles, small to medium, subrounded to subangular; well sorted; moist; brownish yellow (10YR 6/6).		
7			60	JS-SB-33_121922(7-8) @ 1058	0.0		(5.0-12.0') CLAY, medium to high plasticity, slow dilatancy; trace sand, medium, subrounded to subangular; trace pebbles, small, subrounded to subangular; soft to medium stiff; dry to moist; brownish yellow (10YR 6/6) to grayish brown (10YR 5/2).		
8					0.0				
9				JS-SB-33_121922 (9-10) @ 1100	15.3				
10				JS-SB-33_121922 (10-11) @ 1103 and DUP-02_121922	80.5				
11				JS-SB-33_121922 (11-12) @ 1105	109.8				
12			60	JS-SB-33_121922 (12-13) @ 1108 and DUP-03_121922	18.5		Note: Boring appears wet and has a strong odor at 12.0' bgs.		
13					3.5		(12.0-12.5') SILT, rapid dilatancy, nonplastic; some sand, fine to medium, subrounded to subangular; soft; wet; black (10YR 2/1).		
14					2.5		(12.5-15.0') CLAY, high plasticity, slow dilatancy; some sand, medium, subrounded to subangular; trace pebbles, small, subrounded to subangular; soft to medium stiff; wet; brown (10YR 5/3).		
15							End of boring at 15.0' bgs.		
16									
17									
18									
19									
20									

Drilling Co.: Fibertec Sampling Method: 5' Macrocore
Driller: Nick Wiseman Sampling Interval: Continuous
Drilling Method: Hand Auger / Direct Push Water Level Start (ft. bgs.): 12
Drilling Fluid: None Water Level Finish (ft. btoc.): NA
Remarks: ' / ft = feet; " / in = inch; bgs = below ground Converted to Well: ☐ Yes ☒ No
surface: @ = at. Surface Elev.: NM
North Coor:
East Coor:

Appendix D

Laboratory Analytical Reports



Analytical Laboratory Report

Report ID: S31693.01(01)
Generated on 01/07/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Brad Saunders

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S31693.01-S31693.10
Project: 30075936.00005 / Racer PNC GWS
Collected Date(s): 12/28/2021 - 12/29/2021
Submitted Date/Time: 12/30/2021 10:45
Sampled by: Gary Schafer
P.O. #: 30075936.00005

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Method Summary (Page 4)
Sample Summary (Page 5)

Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Analytical Laboratory Report

Sample Summary (10 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S31693.01	Trip Blank	Water	12/29/21 00:01
S31693.02	JS-MW-03_GW-122821	Groundwater	12/28/21 13:21
S31693.03	JS-MW-04_GW-122821	Groundwater	12/28/21 15:26
S31693.04	JS-MW-05_GW-122821	Groundwater	12/28/21 16:56
S31693.05	JS-MW-06_GW-122921	Groundwater	12/29/21 11:21
S31693.06	JS-MW-07_GW-122921	Groundwater	12/29/21 12:26
S31693.07	JS-MW-09_GW-122921	Groundwater	12/29/21 13:51
S31693.08	JS-MW-10_GW-122921	Groundwater	12/29/21 15:31
S31693.09	Dup-01_GW-122821	Groundwater	12/28/21 00:01
S31693.10	Dup-02_GW-122921	Groundwater	12/29/21 00:01



Analytical Laboratory Report

Lab Sample ID: S31693.01

Sample Tag: Trip Blank

Collected Date/Time: 12/29/2021 00:01

Matrix: Water

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 10:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 04:36, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	

Lab Sample ID: S31693.01 (continued)

Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 04:36, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31693.02

Sample Tag: JS-MW-03_GW-122821

Collected Date/Time: 12/28/2021 13:21

Matrix: Groundwater

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 10:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 08:54, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31693.02 (continued)

Sample Tag: JS-MW-03_GW-122821

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 08:54, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31693.03

Sample Tag: JS-MW-04_GW-122821

Collected Date/Time: 12/28/2021 15:26

Matrix: Groundwater

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 14:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 09:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31693.03 (continued)

Sample Tag: JS-MW-04_GW-122821

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 09:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31693.04

Sample Tag: JS-MW-05_GW-122821

Collected Date/Time: 12/28/2021 16:56

Matrix: Groundwater

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 14:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 09:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	8	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	2		ug/L	1	104-51-8	X
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

X-Elevated reporting limit due to matrix interference



Analytical Laboratory Report

Lab Sample ID: S31693.04 (continued)

Sample Tag: JS-MW-05_GW-122821

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 09:40, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Ethylbenzene	6	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	1	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	10	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	4	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	9	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31693.05

Sample Tag: JS-MW-06_GW-122921

Collected Date/Time: 12/29/2021 11:21

Matrix: Groundwater

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 14:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 10:04, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	19	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	22		ug/L	1	104-51-8	SX
Bromobenzene	Not detected	1		ug/L	1	108-86-1	S
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	S
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	2	1		ug/L	1	135-98-8	S
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	S
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	S
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	S
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	S
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	S
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	S
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	S
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	S
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	S
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	S

S-Surrogate recovery outside of control limits X-Elevated reporting limit due to matrix interference



Analytical Laboratory Report

Lab Sample ID: S31693.05 (continued)

Sample Tag: JS-MW-06_GW-122921

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 10:04, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Ethylbenzene	488	1		ug/L	1	100-41-4	SE
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	S
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	S
Isopropylbenzene	26	5		ug/L	1	98-82-8	S
2-Methylnaphthalene	6	5		ug/L	1	91-57-6	S
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	S
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	83	5		ug/L	1	91-20-3	
n-Propylbenzene	84	1		ug/L	1	103-65-1	S
Styrene	Not detected	1		ug/L	1	100-42-5	S
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	S
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	S
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	S
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	S
1,2,3-Trimethylbenzene	30	1		ug/L	1	526-73-8	S
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	S
1,2,4-Trimethylbenzene	513	1		ug/L	1	95-63-6	SE
1,3,5-Trimethylbenzene	Not detected	114		ug/L	1	108-67-8	SX
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	8	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	7	1		ug/L	1	95-47-6	S
p,m-Xylene*	745	2		ug/L	1		SE

Volatile Organics - DEQ List (Replicate 01), Method: SW5030C/8260C, Run Date: 01/05/22 12:25, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
Acrylonitrile	Not detected	40		ug/L	20	107-13-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Benzene	20	20		ug/L	20	71-43-2	Y
n-Butylbenzene	Not detected	20		ug/L	20	104-51-8	Y
Bromobenzene	Not detected	20		ug/L	20	108-86-1	Y
Bromochloromethane	Not detected	20		ug/L	20	74-97-5	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
sec-Butylbenzene	Not detected	20		ug/L	20	135-98-8	Y
tert-Butylbenzene	Not detected	20		ug/L	20	98-06-6	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y

S-Surrogate recovery outside of control limits E-Concentration exceeds calibration range

X-Elevated reporting limit due to matrix interference

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S31693.05 (continued)

Sample Tag: JS-MW-06_GW-122921

Volatile Organics - DEQ List (Replicate 01), Method: SW5030C/8260C, Run Date: 01/05/22 12:25, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
Dibromomethane	Not detected	100		ug/L	20	74-95-3	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
Diethyl ether	Not detected	200		ug/L	20	60-29-7	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y
trans-1,4-Dichloro-2-butene	Not detected	20		ug/L	20	110-57-6	Y
Ethylbenzene	450	20		ug/L	20	100-41-4	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
Hexachloroethane	Not detected	100		ug/L	20	67-72-1	Y
p-Isopropyltoluene	Not detected	100		ug/L	20	99-87-6	Y
Isopropylbenzene	Not detected	100		ug/L	20	98-82-8	Y
2-Methylnaphthalene	Not detected	100		ug/L	20	91-57-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Methyl iodide	Not detected	20		ug/L	20	74-88-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
Naphthalene	Not detected	100		ug/L	20	91-20-3	Y
n-Propylbenzene	60	20		ug/L	20	103-65-1	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
1,1,1,2-Tetrachloroethane	Not detected	20		ug/L	20	630-20-6	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
1,2,3-Trichlorobenzene	Not detected	100		ug/L	20	87-61-6	Y
1,2,3-Trichloropropane	Not detected	20		ug/L	20	96-18-4	Y
1,2,3-Trimethylbenzene	30	20		ug/L	20	526-73-8	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
1,2,4-Trimethylbenzene	390	20		ug/L	20	95-63-6	Y
1,3,5-Trimethylbenzene	Not detected	100		ug/L	20	108-67-8	YX
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y
Tetrahydrofuran*	Not detected	1,800		ug/L	20	109-99-9	Y

Y-Elevated reporting limit due to high target concentration

X-Elevated reporting limit due to matrix interference



Analytical Laboratory Report

Lab Sample ID: S31693.05 (continued)

Sample Tag: JS-MW-06_GW-122921

Volatile Organics - DEQ List (Replicate 01), Method: SW5030C/8260C, Run Date: 01/05/22 12:25, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Toluene	Not detected	20		ug/L	20	108-88-3	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y
o-Xylene	Not detected	20		ug/L	20	95-47-6	Y
p,m-Xylene*	640	40		ug/L	20		Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S31693.06

Sample Tag: JS-MW-07_GW-122921

Collected Date/Time: 12/29/2021 12:26

Matrix: Groundwater

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 14:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 10:27, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31693.06 (continued)
Sample Tag: JS-MW-07_GW-122921

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 10:27, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31693.07

Sample Tag: JS-MW-09_GW-122921

Collected Date/Time: 12/29/2021 13:51

Matrix: Groundwater

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 14:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 10:51, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	438	1		ug/L	1	71-43-2	E
n-Butylbenzene	Not detected	66		ug/L	1	104-51-8	X
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	4	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

E-Concentration exceeds calibration range

X-Elevated reporting limit due to matrix interference



Analytical Laboratory Report

Lab Sample ID: S31693.07 (continued)

Sample Tag: JS-MW-09_GW-122921

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 10:51, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	463	1		ug/L	1	100-41-4	E
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	26	5		ug/L	1	98-82-8	
2-Methylnaphthalene	30	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	137	5		ug/L	1	91-20-3	
n-Propylbenzene	92	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	200	1		ug/L	1	526-73-8	E
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	801	1		ug/L	1	95-63-6	E
1,3,5-Trimethylbenzene	233	1		ug/L	1	108-67-8	E
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	81	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	58	1		ug/L	1	95-47-6	
p,m-Xylene*	1,284	2		ug/L	1		E

Volatile Organics - DEQ List (Replicate 01), Method: SW5030C/8260C, Run Date: 01/05/22 12:48, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
Acrylonitrile	Not detected	40		ug/L	20	107-13-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Benzene	480	20		ug/L	20	71-43-2	Y
n-Butylbenzene	Not detected	80		ug/L	20	104-51-8	YX
Bromobenzene	Not detected	20		ug/L	20	108-86-1	Y
Bromochloromethane	Not detected	20		ug/L	20	74-97-5	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
sec-Butylbenzene	Not detected	20		ug/L	20	135-98-8	Y
tert-Butylbenzene	Not detected	20		ug/L	20	98-06-6	Y

E-Concentration exceeds calibration range

Y-Elevated reporting limit due to high target concentration

X-Elevated reporting limit due to matrix interference



Analytical Laboratory Report

Lab Sample ID: S31693.07 (continued)

Sample Tag: JS-MW-09_GW-122921

Volatile Organics - DEQ List (Replicate 01), Method: SW5030C/8260C, Run Date: 01/05/22 12:48, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
Dibromomethane	Not detected	100		ug/L	20	74-95-3	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
Diethyl ether	Not detected	200		ug/L	20	60-29-7	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y
trans-1,4-Dichloro-2-butene	Not detected	20		ug/L	20	110-57-6	Y
Ethylbenzene	780	20		ug/L	20	100-41-4	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
Hexachloroethane	Not detected	100		ug/L	20	67-72-1	Y
p-Isopropyltoluene	Not detected	100		ug/L	20	99-87-6	Y
Isopropylbenzene	Not detected	100		ug/L	20	98-82-8	Y
2-Methylnaphthalene	Not detected	100		ug/L	20	91-57-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Methyl iodide	Not detected	20		ug/L	20	74-88-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
Naphthalene	100	100		ug/L	20	91-20-3	Y
n-Propylbenzene	80	20		ug/L	20	103-65-1	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
1,1,1,2-Tetrachloroethane	Not detected	20		ug/L	20	630-20-6	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
1,2,3-Trichlorobenzene	Not detected	100		ug/L	20	87-61-6	Y
1,2,3-Trichloropropane	Not detected	20		ug/L	20	96-18-4	Y
1,2,3-Trimethylbenzene	220	20		ug/L	20	526-73-8	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
1,2,4-Trimethylbenzene	920	20		ug/L	20	95-63-6	Y
1,3,5-Trimethylbenzene	270	20		ug/L	20	108-67-8	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y
Tetrahydrofuran*	Not detected	1,800		ug/L	20	109-99-9	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S31693.07 (continued)

Sample Tag: JS-MW-09_GW-122921

Volatile Organics - DEQ List (Replicate 01), Method: SW5030C/8260C, Run Date: 01/05/22 12:48, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Toluene	80	20		ug/L	20	108-88-3	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y
o-Xylene	50	20		ug/L	20	95-47-6	Y
p,m-Xylene*	2,510	40		ug/L	20		Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S31693.08

Sample Tag: JS-MW-10_GW-122921

Collected Date/Time: 12/29/2021 15:31

Matrix: Groundwater

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 14:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 13:11, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	16	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31693.08 (continued)

Sample Tag: JS-MW-10_GW-122921

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 13:11, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31693.09

Sample Tag: Dup-01_GW-122821

Collected Date/Time: 12/28/2021 00:01

Matrix: Groundwater

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 14:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 11:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31693.09 (continued)

Sample Tag: Dup-01_GW-122821

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 11:38, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31693.10

Sample Tag: Dup-02_GW-122921

Collected Date/Time: 12/29/2021 00:01

Matrix: Groundwater

COC Reference: 138629

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/05/22 14:00	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 12:01, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	435	1		ug/L	1	71-43-2	E
n-Butylbenzene	Not detected	69		ug/L	1	104-51-8	X
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	4	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

E-Concentration exceeds calibration range

X-Elevated reporting limit due to matrix interference



Analytical Laboratory Report

Lab Sample ID: S31693.10 (continued)

Sample Tag: Dup-02_GW-122921

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 12:01, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	439	1		ug/L	1	100-41-4	E
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	27	5		ug/L	1	98-82-8	
2-Methylnaphthalene	35	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	146	5		ug/L	1	91-20-3	
n-Propylbenzene	95	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	208	1		ug/L	1	526-73-8	E
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	755	1		ug/L	1	95-63-6	E
1,3,5-Trimethylbenzene	267	1		ug/L	1	108-67-8	E
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	81	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	55	1		ug/L	1	95-47-6	
p,m-Xylene*	1,222	2		ug/L	1		E

Volatile Organics - DEQ List (Replicate 01), Method: SW5030C/8260C, Run Date: 01/06/22 14:18, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
Acrylonitrile	Not detected	40		ug/L	20	107-13-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Benzene	450	20		ug/L	20	71-43-2	Y
n-Butylbenzene	Not detected	20		ug/L	20	104-51-8	Y
Bromobenzene	Not detected	20		ug/L	20	108-86-1	Y
Bromochloromethane	Not detected	20		ug/L	20	74-97-5	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
sec-Butylbenzene	Not detected	20		ug/L	20	135-98-8	Y
tert-Butylbenzene	Not detected	20		ug/L	20	98-06-6	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y

E-Concentration exceeds calibration range

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S31693.10 (continued)

Sample Tag: Dup-02_GW-122921

Volatile Organics - DEQ List (Replicate 01), Method: SW5030C/8260C, Run Date: 01/06/22 14:18, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
Dibromomethane	Not detected	100		ug/L	20	74-95-3	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
Diethyl ether	Not detected	200		ug/L	20	60-29-7	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y
trans-1,4-Dichloro-2-butene	Not detected	20		ug/L	20	110-57-6	Y
Ethylbenzene	860	20		ug/L	20	100-41-4	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
Hexachloroethane	Not detected	100		ug/L	20	67-72-1	Y
p-Isopropyltoluene	Not detected	100		ug/L	20	99-87-6	Y
Isopropylbenzene	Not detected	100		ug/L	20	98-82-8	Y
2-Methylnaphthalene	Not detected	100		ug/L	20	91-57-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Methyl iodide	Not detected	20		ug/L	20	74-88-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
Naphthalene	200	100		ug/L	20	91-20-3	Y
n-Propylbenzene	80	20		ug/L	20	103-65-1	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
1,1,1,2-Tetrachloroethane	Not detected	20		ug/L	20	630-20-6	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
1,2,3-Trichlorobenzene	Not detected	100		ug/L	20	87-61-6	Y
1,2,3-Trichloropropane	Not detected	20		ug/L	20	96-18-4	Y
1,2,3-Trimethylbenzene	270	20		ug/L	20	526-73-8	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
1,2,4-Trimethylbenzene	930	20		ug/L	20	95-63-6	Y
1,3,5-Trimethylbenzene	260	20		ug/L	20	108-67-8	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y
Tetrahydrofuran*	Not detected	1,800		ug/L	20	109-99-9	Y
Toluene	70	20		ug/L	20	108-88-3	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S31693.10 (continued)

Sample Tag: Dup-02_GW-122921

Volatile Organics - DEQ List (Replicate 01), Method: SW5030C/8260C, Run Date: 01/06/22 14:18, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y
o-Xylene	40	20		ug/L	20	95-47-6	Y
p,m-Xylene*	2,730	40		ug/L	20		Y

Y-Elevated reporting limit due to high target concentration

Merit Laboratories Login Checklist

Lab Set ID:S31693

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: 30075936.00005 / Racer PNC GWS

Submitted:12/30/2021 10:45 Login User: MMC

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 5.3
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☐ No ☒ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Lexi Crisp			
COMPANY Arcadis of Michigan, LLC			
ADDRESS 28550 Cabot DR., Suite 500			
CITY Novi		STATE MI	ZIP CODE 48377
PHONE NO.	FAX NO.	P.O. NO.	
E-MAIL ADDRESS lexi.crisp@arcadis.com		QUOTE NO.	

CONTACT NAME		☐ SAME	
COMPANY			
ADDRESS			
CITY		STATE	ZIP CODE
PHONE NO.		E-MAIL ADDRESS	

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME 30075936 00005 / Roger PNG GWS	SAMPLER(S) - PLEASE PRINT/SIGN NAME Gary Schuber / Gary Schuber
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____	
DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER _____	

Certifications

☐ OHIO VAP ☐ Drinking Water

☐ DoD ☐ NPDES

Project Locations

☐ Detroit ☐ New York

☐ Other _____

Special Instructions

MATRIX	GW=GROUNDWATER	WW=WASTEWATER	S=SOIL	L=LIQUID	SD=SOLID
CODE:	SL=SLUDGE	DW=DRINKING WATER	O=OIL	WP=WPIE	A=AIR W=WASTE

Containers & Preservatives

[illegible]

RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>Yong Achafu</i>	☒ Sampler	DATE 12/30/21	TIME 9:30
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>		DATE 1/30/21	TIME 9:30
RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>		DATE 12/30/21	TIME 10:45
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>		DATE 12/30/21	TIME 10:45

RELINQUISHED BY:			DATE	TIME
SIGNATURE/ORGANIZATION				
RECEIVED BY:			DATE	TIME
SIGNATURE/ORGANIZATION				
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES:	TEMP. ON ARRIVAL <u>5.3</u>
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS		

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Analytical Laboratory Report

Report ID: S31744.01(01)
Generated on 01/07/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Brad Saunders

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S31744.01-S31744.09
Project: 30075936.00005
Collected Date(s): 12/30/2021 - 01/04/2022
Submitted Date/Time: 01/04/2022 15:30
Sampled by: Gary Schafer
P.O. #: 30075936.00005

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAS analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Analytical Laboratory Report

Sample Summary (9 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S31744.01	Trip Blank	Water	12/30/21 00:01
S31744.02	JS-MW-11_GW-123021	Groundwater	12/30/21 09:51
S31744.03	JS-MW-19_GW-123021	Groundwater	12/30/21 13:16
S31744.04	JS-MW-16_GW-123021	Groundwater	12/30/21 14:41
S31744.05	JS-MW-16-MS_GW-123021	Groundwater	12/30/21 14:41
S31744.06	JS-MW-16-MSD_GW-123021	Groundwater	12/30/21 14:41
S31744.07	JS-MW-22_GW-010422	Groundwater	01/04/22 10:36
S31744.08	JS-MW-21_GW-010422	Groundwater	01/04/22 11:56
S31744.09	JS-MW-29_GW-010422	Groundwater	01/04/22 13:06



Analytical Laboratory Report

Lab Sample ID: S31744.01

Sample Tag: Trip Blank

Collected Date/Time: 12/30/2021 00:01

Matrix: Water

COC Reference: 138621

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/06/22 12:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 15:07, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31744.01 (continued)

Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 15:07, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31744.02

Sample Tag: JS-MW-11_GW-123021

Collected Date/Time: 12/30/2021 09:51

Matrix: Groundwater

COC Reference: 138621

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/06/22 12:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 17:01, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31744.02 (continued)

Sample Tag: JS-MW-11_GW-123021

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 17:01, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31744.03

Sample Tag: JS-MW-19_GW-123021

Collected Date/Time: 12/30/2021 13:16

Matrix: Groundwater

COC Reference: 138621

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/06/22 12:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 17:19, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	15	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	36	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31744.03 (continued)

Sample Tag: JS-MW-19_GW-123021

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 17:19, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	16	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	24	5		ug/L	1	91-20-3	
n-Propylbenzene	36	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	4	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	1	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	1	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	4	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	7	1		ug/L	1	95-47-6	
p,m-Xylene*	68	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31744.04

Sample Tag: JS-MW-16_GW-123021

Collected Date/Time: 12/30/2021 14:41

Matrix: Groundwater

COC Reference: 138621

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/06/22 12:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 15:26, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	1	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	

Lab Sample ID: S31744.04 (continued)

Sample Tag: JS-MW-16_GW-123021

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 15:26, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	5	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	2	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31744.05

Sample Tag: JS-MW-16-MS_GW-123021

Collected Date/Time: 12/30/2021 14:41

Matrix: Groundwater

COC Reference: 138621

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/06/22 12:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 13:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	56	50		ug/L	1	67-64-1	1
Acrylonitrile	53	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	52	25		ug/L	1	78-93-3	1
Benzene	46	1		ug/L	1	71-43-2	1
n-Butylbenzene	48	1		ug/L	1	104-51-8	1
Bromobenzene	48	1		ug/L	1	108-86-1	1
Bromochloromethane	47	1		ug/L	1	74-97-5	1
Bromodichloromethane	48	1		ug/L	1	75-27-4	1
Bromoform	50	1		ug/L	1	75-25-2	1
Bromomethane	45	5		ug/L	1	74-83-9	1
sec-Butylbenzene	48	1		ug/L	1	135-98-8	1
tert-Butylbenzene	47	1		ug/L	1	98-06-6	1
Carbon disulfide	46	5		ug/L	1	75-15-0	1
Carbon tetrachloride	46	1		ug/L	1	56-23-5	1
Chlorobenzene	46	1		ug/L	1	108-90-7	1
Chloroethane	44	5		ug/L	1	75-00-3	1
Chloroform	47	1		ug/L	1	67-66-3	1
Chloromethane	46	5		ug/L	1	74-87-3	1
1,1-Dichloroethane	47	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	47	1		ug/L	1	75-35-4	1
1,2-Dibromo-3-chloropropane	53	5		ug/L	1	96-12-8	1
1,2-Dibromoethane	51	1		ug/L	1	106-93-4	1
1,2-Dichlorobenzene	47	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	49	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	47	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	45	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	47	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	48	1		ug/L	1	156-59-2	1
cis-1,3-Dichloropropene	50	1		ug/L	1	10061-01-5	1
Dibromochloromethane	49	5		ug/L	1	124-48-1	1
Dibromomethane	49	5		ug/L	1	74-95-3	1
Dichlorodifluoromethane	48	5		ug/L	1	75-71-8	1
Diethyl ether	49	10		ug/L	1	60-29-7	1
trans-1,2-Dichloroethene	48	1		ug/L	1	156-60-5	1
trans-1,3-Dichloropropene	51	1		ug/L	1	10061-02-6	1
trans-1,4-Dichloro-2-butene	55	1		ug/L	1	110-57-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S31744.05 (continued)

Sample Tag: JS-MW-16-MS_GW-123021

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 13:32, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Ethylbenzene	47	1		ug/L	1	100-41-4	1
2-Hexanone	53	50		ug/L	1	591-78-6	1
Hexachloroethane	50	5		ug/L	1	67-72-1	1
p-Isopropyltoluene	47	5		ug/L	1	99-87-6	1
Isopropylbenzene	49	5		ug/L	1	98-82-8	1
2-Methylnaphthalene	61	5		ug/L	1	91-57-6	1
4-Methyl-2-pentanone (MIBK)	54	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	53	5		ug/L	1	1634-04-4	1
Methyl iodide	48	1		ug/L	1	74-88-4	1
Methylene chloride	47	5		ug/L	1	75-09-2	1
Naphthalene	59	5		ug/L	1	91-20-3	1
n-Propylbenzene	53	1		ug/L	1	103-65-1	1
Styrene	47	1		ug/L	1	100-42-5	1
1,1,1,2-Tetrachloroethane	47	1		ug/L	1	630-20-6	1
1,1,1-Trichloroethane	46	1		ug/L	1	71-55-6	1
1,1,2,2-Tetrachloroethane	50	1		ug/L	1	79-34-5	1
1,1,2-Trichloroethane	48	1		ug/L	1	79-00-5	1
1,2,3-Trichlorobenzene	52	5		ug/L	1	87-61-6	1
1,2,3-Trichloropropane	48	1		ug/L	1	96-18-4	1
1,2,3-Trimethylbenzene	50	1		ug/L	1	526-73-8	1
1,2,4-Trichlorobenzene	52	5		ug/L	1	120-82-1	1
1,2,4-Trimethylbenzene	48	1		ug/L	1	95-63-6	1
1,3,5-Trimethylbenzene	48	1		ug/L	1	108-67-8	1
Tetrachloroethene	44	1		ug/L	1	127-18-4	1
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	1
Toluene	47	1		ug/L	1	108-88-3	1
Trichloroethene	47	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	45	1		ug/L	1	75-69-4	1
Vinyl chloride	47	1		ug/L	1	75-01-4	1
o-Xylene	46	1		ug/L	1	95-47-6	1
p,m-Xylene*	93	2		ug/L	1		1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S31744.06

Sample Tag: JS-MW-16-MSD_GW-123021

Collected Date/Time: 12/30/2021 14:41

Matrix: Groundwater

COC Reference: 138621

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/06/22 12:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 13:51, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	56	50		ug/L	1	67-64-1	1
Acrylonitrile	50	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	49	25		ug/L	1	78-93-3	1
Benzene	48	1		ug/L	1	71-43-2	1
n-Butylbenzene	50	1		ug/L	1	104-51-8	1
Bromobenzene	48	1		ug/L	1	108-86-1	1
Bromochloromethane	49	1		ug/L	1	74-97-5	1
Bromodichloromethane	49	1		ug/L	1	75-27-4	1
Bromoform	50	1		ug/L	1	75-25-2	1
Bromomethane	48	5		ug/L	1	74-83-9	1
sec-Butylbenzene	51	1		ug/L	1	135-98-8	1
tert-Butylbenzene	49	1		ug/L	1	98-06-6	1
Carbon disulfide	49	5		ug/L	1	75-15-0	1
Carbon tetrachloride	49	1		ug/L	1	56-23-5	1
Chlorobenzene	48	1		ug/L	1	108-90-7	1
Chloroethane	47	5		ug/L	1	75-00-3	1
Chloroform	49	1		ug/L	1	67-66-3	1
Chloromethane	50	5		ug/L	1	74-87-3	1
1,1-Dichloroethane	49	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	50	1		ug/L	1	75-35-4	1
1,2-Dibromo-3-chloropropane	52	5		ug/L	1	96-12-8	1
1,2-Dibromoethane	51	1		ug/L	1	106-93-4	1
1,2-Dichlorobenzene	49	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	49	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	49	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	48	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	48	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	50	1		ug/L	1	156-59-2	1
cis-1,3-Dichloropropene	51	1		ug/L	1	10061-01-5	1
Dibromochloromethane	49	5		ug/L	1	124-48-1	1
Dibromomethane	48	5		ug/L	1	74-95-3	1
Dichlorodifluoromethane	51	5		ug/L	1	75-71-8	1
Diethyl ether	50	10		ug/L	1	60-29-7	1
trans-1,2-Dichloroethene	49	1		ug/L	1	156-60-5	1
trans-1,3-Dichloropropene	51	1		ug/L	1	10061-02-6	1
trans-1,4-Dichloro-2-butene	54	1		ug/L	1	110-57-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S31744.06 (continued)

Sample Tag: JS-MW-16-MSD_GW-123021

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 13:51, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Ethylbenzene	49	1		ug/L	1	100-41-4	1
2-Hexanone	50	50		ug/L	1	591-78-6	1
Hexachloroethane	53	5		ug/L	1	67-72-1	1
p-Isopropyltoluene	50	5		ug/L	1	99-87-6	1
Isopropylbenzene	51	5		ug/L	1	98-82-8	1
2-Methylnaphthalene	60	5		ug/L	1	91-57-6	1
4-Methyl-2-pentanone (MIBK)	51	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	52	5		ug/L	1	1634-04-4	1
Methyl iodide	50	1		ug/L	1	74-88-4	1
Methylene chloride	49	5		ug/L	1	75-09-2	1
Naphthalene	57	5		ug/L	1	91-20-3	1
n-Propylbenzene	54	1		ug/L	1	103-65-1	1
Styrene	49	1		ug/L	1	100-42-5	1
1,1,1,2-Tetrachloroethane	48	1		ug/L	1	630-20-6	1
1,1,1-Trichloroethane	48	1		ug/L	1	71-55-6	1
1,1,2,2-Tetrachloroethane	49	1		ug/L	1	79-34-5	1
1,1,2-Trichloroethane	48	1		ug/L	1	79-00-5	1
1,2,3-Trichlorobenzene	53	5		ug/L	1	87-61-6	1
1,2,3-Trichloropropane	46	1		ug/L	1	96-18-4	1
1,2,3-Trimethylbenzene	51	1		ug/L	1	526-73-8	1
1,2,4-Trichlorobenzene	54	5		ug/L	1	120-82-1	1
1,2,4-Trimethylbenzene	49	1		ug/L	1	95-63-6	1
1,3,5-Trimethylbenzene	50	1		ug/L	1	108-67-8	1
Tetrachloroethene	47	1		ug/L	1	127-18-4	1
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	1
Toluene	48	1		ug/L	1	108-88-3	1
Trichloroethene	49	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	46	1		ug/L	1	75-69-4	1
Vinyl chloride	51	1		ug/L	1	75-01-4	1
o-Xylene	48	1		ug/L	1	95-47-6	1
p,m-Xylene*	97	2		ug/L	1		1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S31744.07

Sample Tag: JS-MW-22_GW-010422

Collected Date/Time: 01/04/2022 10:36

Matrix: Groundwater

COC Reference: 138621

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/06/22 12:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 17:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31744.07 (continued)

Sample Tag: JS-MW-22_GW-010422

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 17:38, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31744.08

Sample Tag: JS-MW-21_GW-010422

Collected Date/Time: 01/04/2022 11:56

Matrix: Groundwater

COC Reference: 138621

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/06/22 12:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 17:58, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31744.08 (continued)

Sample Tag: JS-MW-21_GW-010422

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 17:58, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31744.09

Sample Tag: JS-MW-29_GW-010422

Collected Date/Time: 01/04/2022 13:06

Matrix: Groundwater

COC Reference: 138621

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/06/22 12:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 18:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	4	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31744.09 (continued)

Sample Tag: JS-MW-29_GW-010422

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/05/22 18:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	5	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	3	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	3	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	1	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		

Merit Laboratories Login Checklist

Lab Set ID:S31744

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: 30075936.00005

Submitted:01/04/2022 15:30 Login User: JRM

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909

FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 3.3
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☐ No ☒ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com



Analytical Laboratory Report

Report ID: S31813.01(01)
Generated on 01/10/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Brad Saunders

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S31813.01-S31813.12
Project: 30075936.00005 / Racer PNC
Collected Date(s): 01/04/2022 - 01/06/2022
Submitted Date/Time: 01/06/2022 15:20
Sampled by: Gary Schafer
P.O. #: 30075936.00005

Table of Contents

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Analytical Laboratory Report

Sample Summary (12 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S31813.01	Trip Blank	Water	01/04/22 00:01
S31813.02	JS-MW-20_GW-010422	Groundwater	01/04/22 11:51
S31813.03	JS-MW-25_GW-010522	Groundwater	01/05/22 10:21
S31813.04	JS-MW-24_GW-010522	Groundwater	01/05/22 11:51
S31813.05	JS-MW-23_GW-010522	Groundwater	01/05/22 13:26
S31813.06	JS-MW-28_GW-010522	Groundwater	01/05/22 14:36
S31813.07	JS-MW-26_GW-010622	Groundwater	01/06/22 10:31
S31813.08	JS-MW-26-MS_GW-010622	Groundwater	01/06/22 10:31
S31813.09	JS-MW-26-MSD_GW-010622	Groundwater	01/06/22 10:31
S31813.10	JS-MW-30_GW-010622	Groundwater	01/06/22 11:46
S31813.11	JS-MW-27_GW-010622	Groundwater	01/06/22 12:56
S31813.12	DUP-03_GW-010422	Groundwater	01/04/22 00:01



Analytical Laboratory Report

Lab Sample ID: S31813.01

Sample Tag: Trip Blank

Collected Date/Time: 01/04/2022 00:01

Matrix: Water

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 14:44, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	

Lab Sample ID: S31813.01 (continued)

Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 14:44, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31813.02

Sample Tag: JS-MW-20_GW-010422

Collected Date/Time: 01/04/2022 11:51

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 15:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31813.02 (continued)

Sample Tag: JS-MW-20_GW-010422

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 15:40, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31813.03

Sample Tag: JS-MW-25_GW-010522

Collected Date/Time: 01/05/2022 10:21

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 15:59, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31813.03 (continued)

Sample Tag: JS-MW-25_GW-010522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 15:59, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31813.04

Sample Tag: JS-MW-24_GW-010522

Collected Date/Time: 01/05/2022 11:51

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 16:18, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31813.04 (continued)

Sample Tag: JS-MW-24_GW-010522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 16:18, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31813.05

Sample Tag: JS-MW-23_GW-010522

Collected Date/Time: 01/05/2022 13:26

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 16:37, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	2	1		ug/L	1	71-43-2	
n-Butylbenzene	1	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	9	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31813.05 (continued)

Sample Tag: JS-MW-23_GW-010522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 16:37, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	4	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	7	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	2	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	2	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	2	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	3	1		ug/L	1	95-47-6	
p,m-Xylene*	12	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31813.06

Sample Tag: JS-MW-28_GW-010522

Collected Date/Time: 01/05/2022 14:36

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 16:56, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31813.06 (continued)

Sample Tag: JS-MW-28_GW-010522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 16:56, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31813.07

Sample Tag: JS-MW-26_GW-010622

Collected Date/Time: 01/06/2022 10:31

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 15:03, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31813.07 (continued)

Sample Tag: JS-MW-26_GW-010622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 15:03, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31813.08

Sample Tag: JS-MW-26-MS_GW-010622

Collected Date/Time: 01/06/2022 10:31

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 13:08, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	55	50		ug/L	1	67-64-1	1
Acrylonitrile	53	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	55	25		ug/L	1	78-93-3	1
Benzene	48	1		ug/L	1	71-43-2	1
n-Butylbenzene	50	1		ug/L	1	104-51-8	1
Bromobenzene	50	1		ug/L	1	108-86-1	1
Bromochloromethane	50	1		ug/L	1	74-97-5	1
Bromodichloromethane	50	1		ug/L	1	75-27-4	1
Bromoform	53	1		ug/L	1	75-25-2	1
Bromomethane	47	5		ug/L	1	74-83-9	1
sec-Butylbenzene	48	1		ug/L	1	135-98-8	1
tert-Butylbenzene	48	1		ug/L	1	98-06-6	1
Carbon disulfide	47	5		ug/L	1	75-15-0	1
Carbon tetrachloride	47	1		ug/L	1	56-23-5	1
Chlorobenzene	49	1		ug/L	1	108-90-7	1
Chloroethane	45	5		ug/L	1	75-00-3	1
Chloroform	48	1		ug/L	1	67-66-3	1
Chloromethane	47	5		ug/L	1	74-87-3	1
1,1-Dichloroethane	49	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	47	1		ug/L	1	75-35-4	1
1,2-Dibromo-3-chloropropane	55	5		ug/L	1	96-12-8	1
1,2-Dibromoethane	53	1		ug/L	1	106-93-4	1
1,2-Dichlorobenzene	49	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	49	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	48	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	48	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	49	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	50	1		ug/L	1	156-59-2	1
cis-1,3-Dichloropropene	52	1		ug/L	1	10061-01-5	1
Dibromochloromethane	51	5		ug/L	1	124-48-1	1
Dibromomethane	51	5		ug/L	1	74-95-3	1
Dichlorodifluoromethane	50	5		ug/L	1	75-71-8	1
Diethyl ether	51	10		ug/L	1	60-29-7	1
trans-1,2-Dichloroethene	49	1		ug/L	1	156-60-5	1
trans-1,3-Dichloropropene	51	1		ug/L	1	10061-02-6	1
trans-1,4-Dichloro-2-butene	54	1		ug/L	1	110-57-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S31813.08 (continued)

Sample Tag: JS-MW-26-MS_GW-010622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 13:08, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Ethylbenzene	49	1		ug/L	1	100-41-4	1
2-Hexanone	59	50		ug/L	1	591-78-6	1
Hexachloroethane	54	5		ug/L	1	67-72-1	1
p-Isopropyltoluene	49	5		ug/L	1	99-87-6	1
Isopropylbenzene	50	5		ug/L	1	98-82-8	1
2-Methylnaphthalene	64	5		ug/L	1	91-57-6	1
4-Methyl-2-pentanone (MIBK)	58	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	57	5		ug/L	1	1634-04-4	1
Methyl iodide	50	1		ug/L	1	74-88-4	1
Methylene chloride	49	5		ug/L	1	75-09-2	1
Naphthalene	56	5		ug/L	1	91-20-3	1
n-Propylbenzene	49	1		ug/L	1	103-65-1	1
Styrene	49	1		ug/L	1	100-42-5	1
1,1,1,2-Tetrachloroethane	50	1		ug/L	1	630-20-6	1
1,1,1-Trichloroethane	47	1		ug/L	1	71-55-6	1
1,1,2,2-Tetrachloroethane	52	1		ug/L	1	79-34-5	1
1,1,2-Trichloroethane	49	1		ug/L	1	79-00-5	1
1,2,3-Trichlorobenzene	53	5		ug/L	1	87-61-6	1
1,2,3-Trichloropropane	50	1		ug/L	1	96-18-4	1
1,2,3-Trimethylbenzene	53	1		ug/L	1	526-73-8	1
1,2,4-Trichlorobenzene	53	5		ug/L	1	120-82-1	1
1,2,4-Trimethylbenzene	48	1		ug/L	1	95-63-6	1
1,3,5-Trimethylbenzene	49	1		ug/L	1	108-67-8	1
Tetrachloroethene	47	1		ug/L	1	127-18-4	1
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	1
Toluene	48	1		ug/L	1	108-88-3	1
Trichloroethene	49	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	43	1		ug/L	1	75-69-4	1
Vinyl chloride	47	1		ug/L	1	75-01-4	1
o-Xylene	48	1		ug/L	1	95-47-6	1
p,m-Xylene*	95	2		ug/L	1		1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S31813.09

Sample Tag: JS-MW-26-MSD_GW-010622

Collected Date/Time: 01/06/2022 10:31

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 13:27, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	1
Acrylonitrile	50	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	51	25		ug/L	1	78-93-3	1
Benzene	47	1		ug/L	1	71-43-2	1
n-Butylbenzene	48	1		ug/L	1	104-51-8	1
Bromobenzene	49	1		ug/L	1	108-86-1	1
Bromochloromethane	49	1		ug/L	1	74-97-5	1
Bromodichloromethane	49	1		ug/L	1	75-27-4	1
Bromoform	51	1		ug/L	1	75-25-2	1
Bromomethane	49	5		ug/L	1	74-83-9	1
sec-Butylbenzene	48	1		ug/L	1	135-98-8	1
tert-Butylbenzene	47	1		ug/L	1	98-06-6	1
Carbon disulfide	46	5		ug/L	1	75-15-0	1
Carbon tetrachloride	46	1		ug/L	1	56-23-5	1
Chlorobenzene	48	1		ug/L	1	108-90-7	1
Chloroethane	46	5		ug/L	1	75-00-3	1
Chloroform	48	1		ug/L	1	67-66-3	1
Chloromethane	48	5		ug/L	1	74-87-3	1
1,1-Dichloroethane	48	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	46	1		ug/L	1	75-35-4	1
1,2-Dibromo-3-chloropropane	51	5		ug/L	1	96-12-8	1
1,2-Dibromoethane	52	1		ug/L	1	106-93-4	1
1,2-Dichlorobenzene	49	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	47	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	48	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	47	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	48	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	49	1		ug/L	1	156-59-2	1
cis-1,3-Dichloropropene	51	1		ug/L	1	10061-01-5	1
Dibromochloromethane	50	5		ug/L	1	124-48-1	1
Dibromomethane	50	5		ug/L	1	74-95-3	1
Dichlorodifluoromethane	48	5		ug/L	1	75-71-8	1
Diethyl ether	47	10		ug/L	1	60-29-7	1
trans-1,2-Dichloroethene	48	1		ug/L	1	156-60-5	1
trans-1,3-Dichloropropene	49	1		ug/L	1	10061-02-6	1
trans-1,4-Dichloro-2-butene	50	1		ug/L	1	110-57-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S31813.09 (continued)
Sample Tag: JS-MW-26-MSD_GW-010622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 13:27, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Ethylbenzene	47	1		ug/L	1	100-41-4	1
2-Hexanone	52	50		ug/L	1	591-78-6	1
Hexachloroethane	53	5		ug/L	1	67-72-1	1
p-Isopropyltoluene	48	5		ug/L	1	99-87-6	1
Isopropylbenzene	48	5		ug/L	1	98-82-8	1
2-Methylnaphthalene	57	5		ug/L	1	91-57-6	1
4-Methyl-2-pentanone (MIBK)	54	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	56	5		ug/L	1	1634-04-4	1
Methyl iodide	50	1		ug/L	1	74-88-4	1
Methylene chloride	49	5		ug/L	1	75-09-2	1
Naphthalene	52	5		ug/L	1	91-20-3	1
n-Propylbenzene	48	1		ug/L	1	103-65-1	1
Styrene	48	1		ug/L	1	100-42-5	1
1,1,1,2-Tetrachloroethane	48	1		ug/L	1	630-20-6	1
1,1,1-Trichloroethane	47	1		ug/L	1	71-55-6	1
1,1,2,2-Tetrachloroethane	49	1		ug/L	1	79-34-5	1
1,1,2-Trichloroethane	47	1		ug/L	1	79-00-5	1
1,2,3-Trichlorobenzene	52	5		ug/L	1	87-61-6	1
1,2,3-Trichloropropane	47	1		ug/L	1	96-18-4	1
1,2,3-Trimethylbenzene	52	1		ug/L	1	526-73-8	1
1,2,4-Trichlorobenzene	51	5		ug/L	1	120-82-1	1
1,2,4-Trimethylbenzene	47	1		ug/L	1	95-63-6	1
1,3,5-Trimethylbenzene	48	1		ug/L	1	108-67-8	1
Tetrachloroethene	46	1		ug/L	1	127-18-4	1
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	1
Toluene	47	1		ug/L	1	108-88-3	1
Trichloroethene	48	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	47	1		ug/L	1	75-69-4	1
Vinyl chloride	48	1		ug/L	1	75-01-4	1
o-Xylene	47	1		ug/L	1	95-47-6	1
p,m-Xylene*	94	2		ug/L	1		1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S31813.10

Sample Tag: JS-MW-30_GW-010622

Collected Date/Time: 01/06/2022 11:46

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 17:15, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31813.10 (continued)

Sample Tag: JS-MW-30_GW-010622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 17:15, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31813.11

Sample Tag: JS-MW-27_GW-010622

Collected Date/Time: 01/06/2022 12:56

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 17:34, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	3	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	

Lab Sample ID: S31813.11 (continued)

Sample Tag: JS-MW-27_GW-010622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 17:34, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S31813.12

Sample Tag: DUP-03_GW-010422

Collected Date/Time: 01/04/2022 00:01

Matrix: Groundwater

COC Reference: 138622

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	01/10/22 10:30	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 17:53, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S31813.12 (continued)

Sample Tag: DUP-03_GW-010422

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 01/07/22 17:53, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		

Merit Laboratories Login Checklist

Lab Set ID:S31813

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: 30075936.00005 / Racer PNC

Submitted:01/06/2022 15:20 Login User: PFD

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
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Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 4.2
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☒ No ☐ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____ 138622

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Lexi Crisp			
COMPANY Arcadis of Michigan, LLC			
ADDRESS 28550 Cabot Dr., Suite 500			
CITY Novi	STATE MI	ZIP CODE 48377	
PHONE NO.	FAX NO.	P.O. NO.	
E-MAIL ADDRESS 30075936.00005 / Racer PNC		QUOTE NO.	

CONTACT NAME			☐ SAME
COMPANY			
ADDRESS			
CITY			STATE ZIP CODE
PHONE NO.		E-MAIL ADDRESS	

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME	SAMPLER(S) - PLEASE PRINT/SIGN NAME Gary Schuster / Lexi Crisp
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER	
DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER	

MATRIX CODE:	GW=GROUNDWATER SL=SLUDGE	WW=WASTEWATER DW=DRINKING WATER	S=SOIL O=OIL	L=LIQUID WP=WIPE	SD=SOLID A=AIR	W=WASTE

Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	Certifications ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES Project Locations ☐ Detroit ☐ New York ☐ Other _____ Special Instructions
	DATE	TIME											
3/18/13.01			Trip Blank		1		X						
.02	01/04/22	11:51	JS-MW-20-GW-010422	GW	3		X						
.03	01/05/22	10:21	JS-MW-25-GW-010522	GW	3		X						
.04	01/05/22	11:51	JS-MW-24-GW-010522	GW	3		X						
.05	01/05/22	13:24	JS-MW-23-GW-010522	GW	3		X						
.06	01/05/22	14:36	JS-MW-28-GW-010522	GW	3		X						
.07	01/06/22	10:31	JS-MW-26-GW-010622	GW	3		X						
.08	01/06/22	10:31	JS-MW-26-MS-GW-010622	GW	3		X						
.09	01/06/22	10:31	JS-MW-26-MSD-GW-010622	GW	3		X						
.10	01/06/22	11:46	JS-MW-30-GW-010622	GW	3		X						
.11	01/06/22	12:56	JS-MW-27-GW-010622	GW	3		X						
.12	01/04/22		DUP-03-GW-010422	GW	3		X						

RELINQUISHED BY: SIGNATURE/ORGANIZATION Gary Schuster	☒ Sampler	DATE 01/06/22	TIME 13:49
RECEIVED BY: SIGNATURE/ORGANIZATION Lexi Crisp		DATE 1/06/22	TIME 13:49
RELINQUISHED BY: SIGNATURE/ORGANIZATION Lexi Crisp		DATE 1/6/22	TIME 15:26
RECEIVED BY: SIGNATURE/ORGANIZATION Patricia		DATE 1/6/22	TIME 15:20

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
NOTES		TEMP. ON ARRIVAL 4.2

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Analytical Laboratory Report

Report ID: S37312.01(01)
Generated on 06/24/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Tiffany Linder, Ian Drost

Report produced by

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East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S37312.01-S37312.07
Project: Racer PNC / 30112891.00005
Collected Date(s): 06/20/2022 - 06/21/2022
Submitted Date/Time: 06/21/2022 15:05
Sampled by: Sommer Guy
P.O. #: 30112891.00005

Table of Contents

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

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Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Analytical Laboratory Report

Sample Summary (7 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S37312.01	JS-MW-23_GW-062022	Groundwater	06/20/22 15:40
S37312.02	JS-MW-30_GW-062122	Groundwater	06/21/22 09:18
S37312.03	JS-MW-24_GW-062122	Groundwater	06/21/22 10:25
S37312.04	Trip Blank_01	Water	06/21/22 00:01
S37312.05	JS-MW-04_GW-062122	Groundwater	06/21/22 13:20
S37312.06	JS-MW-06_GW-062122	Groundwater	06/21/22 13:45
S37312.07	DUP-01_GW-062122	Groundwater	06/21/22 00:01



Analytical Laboratory Report

Lab Sample ID: S37312.01

Sample Tag: JS-MW-23_GW-062022

Collected Date/Time: 06/20/2022 15:40

Matrix: Groundwater

COC Reference: 148777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/23/22 10:00	JKJ	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 16:45, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	1	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	3	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.01 (continued)

Sample Tag: JS-MW-23_GW-062022

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 16:45, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	5	1		ug/L	1	100-41-4	
p,m-Xylene*	4	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	3	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	2	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.02

Sample Tag: JS-MW-30_GW-062122

Collected Date/Time: 06/21/2022 09:18

Matrix: Groundwater

COC Reference: 148777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/23/22 10:00	JKJ	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 17:04, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.02 (continued)

Sample Tag: JS-MW-30_GW-062122

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 17:04, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.03

Sample Tag: JS-MW-24_GW-062122

Collected Date/Time: 06/21/2022 10:25

Matrix: Groundwater

COC Reference: 148777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/23/22 10:00	JKJ	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 17:24, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.03 (continued)

Sample Tag: JS-MW-24_GW-062122

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 17:24, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.04

Sample Tag: Trip Blank_01

Collected Date/Time: 06/21/2022 00:01

Matrix: Water

COC Reference: 148777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/23/22 10:00	JKJ	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 14:48, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.04 (continued)

Sample Tag: Trip Blank_01

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 14:48, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.05

Sample Tag: JS-MW-04_GW-062122

Collected Date/Time: 06/21/2022 13:20

Matrix: Groundwater

COC Reference: 148777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/23/22 10:00	JKJ	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 17:43, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.05 (continued)

Sample Tag: JS-MW-04_GW-062122

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/22/22 17:43, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.06

Sample Tag: JS-MW-06_GW-062122

Collected Date/Time: 06/21/2022 13:45

Matrix: Groundwater

COC Reference: 148777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/23/22 10:00	JKJ	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 14:43, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	3	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	1	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.06 (continued)

Sample Tag: JS-MW-06_GW-062122

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 14:43, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	69	1		ug/L	1	100-41-4	
p,m-Xylene*	94	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	9	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	63	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	1	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	12	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.07

Sample Tag: DUP-01_GW-062122

Collected Date/Time: 06/21/2022 00:01

Matrix: Groundwater

COC Reference: 148777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/23/22 10:00	JKJ	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 15:01, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37312.07 (continued)

Sample Tag: DUP-01_GW-062122

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 15:01, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID:S37312

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: Racer PNC / 30112891.00005

Submitted:06/21/2022 15:05 Login User: MMC

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01. ☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C	Thermometer # IR 5.8
02. ☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun	
03. ☐ Yes ☒ No ☐ N/A	Samples shipped	
04. ☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box	
05. ☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody		
06. ☒ Yes ☐ No ☐ N/A	COC adequately filled out	
07. ☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab	
08. ☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC	
09. ☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:	
Preservation		
10. ☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation	
11. ☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
12. ☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions		
13. ☒ Yes ☐ No ☐ N/A	All bottles intact	
14. ☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used	
15. ☒ Yes ☐ No ☐ N/A	Merit bottles used	
16. ☒ Yes ☐ No ☐ N/A	Sufficient sample volume received	
17. ☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration	
18. ☒ Yes ☐ No ☐ N/A	Samples submitted within holding time	
19. ☐ Yes ☒ No ☐ N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____





Analytical Laboratory Report

Report ID: S37369.01(01)
Generated on 06/28/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S37369.01-S37369.06
Project: Racer PNC / 30112891.00005
Collected Date(s): 06/21/2022 - 06/22/2022
Submitted Date/Time: 06/22/2022 15:00
Sampled by: Sommer Guy
P.O. #: 30112891.00005

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Analytical Laboratory Report

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S37369.01	JS-MW-19_GW-062122	Groundwater	06/21/22 14:55
S37369.02	JS-MW-22_GW-062122	Groundwater	06/22/22 09:18
S37369.03	JS-MW-09_GW-062122	Groundwater	06/22/22 12:10
S37369.04	JS-MW-10_GW-062122	Groundwater	06/22/22 11:50
S37369.05	DUP-02_GW-062222	Groundwater	06/22/22 00:01
S37369.06	Tripblank_08	Water	06/22/22 00:01



Analytical Laboratory Report

Lab Sample ID: S37369.01

Sample Tag: JS-MW-19_GW-062122

Collected Date/Time: 06/21/2022 14:55

Matrix: Groundwater

COC Reference: 148782

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/24/22 08:50	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 18:36, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	18	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	3	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37369.01 (continued)

Sample Tag: JS-MW-19_GW-062122

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 18:36, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	9	1		ug/L	1	100-41-4	
p,m-Xylene*	29	2		ug/L	1		
o-Xylene	3	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	11	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	26	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	2	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	13	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37369.02

Sample Tag: JS-MW-22_GW-062122

Collected Date/Time: 06/22/2022 09:18

Matrix: Groundwater

COC Reference: 148782

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/24/22 08:50	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 18:55, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37369.02 (continued)

Sample Tag: JS-MW-22_GW-062122

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 18:55, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37369.03

Sample Tag: JS-MW-09_GW-062122

Collected Date/Time: 06/22/2022 12:10

Matrix: Groundwater

COC Reference: 148782

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/24/22 08:50	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 19:53, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/L	20	60-29-7	Y
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
Methyl iodide	Not detected	20		ug/L	20	74-88-4	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Acrylonitrile	Not detected	40		ug/L	20	107-13-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Tetrahydrofuran*	Not detected	1,800		ug/L	20	109-99-9	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Bromochloromethane	Not detected	20		ug/L	20	74-97-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Benzene	580	20		ug/L	20	71-43-2	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Dibromomethane	Not detected	100		ug/L	20	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
Toluene	100	20		ug/L	20	108-88-3	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S37369.03 (continued)

Sample Tag: JS-MW-09_GW-062122

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 19:53, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,4-Dichloro-2-butene	Not detected	20		ug/L	20	110-57-6	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	20		ug/L	20	630-20-6	Y
Ethylbenzene	1,610	20		ug/L	20	100-41-4	Y
p,m-Xylene*	4,430	40		ug/L	20		Y
o-Xylene	80	20		ug/L	20	95-47-6	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
Isopropylbenzene	Not detected	100		ug/L	20	98-82-8	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
1,2,3-Trichloropropane	Not detected	20		ug/L	20	96-18-4	Y
n-Propylbenzene	190	20		ug/L	20	103-65-1	Y
Bromobenzene	Not detected	20		ug/L	20	108-86-1	Y
1,3,5-Trimethylbenzene	450	20		ug/L	20	108-67-8	Y
tert-Butylbenzene	Not detected	20		ug/L	20	98-06-6	Y
1,2,4-Trimethylbenzene	1,490	20		ug/L	20	95-63-6	Y
sec-Butylbenzene	Not detected	20		ug/L	20	135-98-8	Y
p-Isopropyltoluene	Not detected	100		ug/L	20	99-87-6	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2,3-Trimethylbenzene	400	20		ug/L	20	526-73-8	Y
n-Butylbenzene	Not detected	20		ug/L	20	104-51-8	Y
Hexachloroethane	Not detected	100		ug/L	20	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	100		ug/L	20	87-61-6	Y
Naphthalene	300	100		ug/L	20	91-20-3	Y
2-Methylnaphthalene	Not detected	100		ug/L	20	91-57-6	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S37369.04

Sample Tag: JS-MW-10_GW-062122

Collected Date/Time: 06/22/2022 11:50

Matrix: Groundwater

COC Reference: 148782

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/24/22 08:50	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/24/22 13:51, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	76	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37369.04 (continued)

Sample Tag: JS-MW-10_GW-062122

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/24/22 13:51, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37369.05

Sample Tag: DUP-02_GW-062222

Collected Date/Time: 06/22/2022 00:01

Matrix: Groundwater

COC Reference: 148782

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/24/22 08:50	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/24/22 14:10, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/L	20	60-29-7	Y
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
Methyl iodide	Not detected	20		ug/L	20	74-88-4	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Acrylonitrile	Not detected	40		ug/L	20	107-13-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Tetrahydrofuran*	Not detected	1,800		ug/L	20	109-99-9	Y
Chloroform	30	20		ug/L	20	67-66-3	Y
Bromochloromethane	Not detected	20		ug/L	20	74-97-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Benzene	600	20		ug/L	20	71-43-2	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Dibromomethane	Not detected	100		ug/L	20	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
Toluene	100	20		ug/L	20	108-88-3	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S37369.05 (continued)

Sample Tag: DUP-02_GW-062222

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/24/22 14:10, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,4-Dichloro-2-butene	Not detected	20		ug/L	20	110-57-6	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	20		ug/L	20	630-20-6	Y
Ethylbenzene	1,590	20		ug/L	20	100-41-4	Y
p,m-Xylene*	4,410	40		ug/L	20		Y
o-Xylene	80	20		ug/L	20	95-47-6	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
Isopropylbenzene	Not detected	100		ug/L	20	98-82-8	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
1,2,3-Trichloropropane	Not detected	20		ug/L	20	96-18-4	Y
n-Propylbenzene	180	20		ug/L	20	103-65-1	Y
Bromobenzene	Not detected	20		ug/L	20	108-86-1	Y
1,3,5-Trimethylbenzene	440	20		ug/L	20	108-67-8	Y
tert-Butylbenzene	Not detected	20		ug/L	20	98-06-6	Y
1,2,4-Trimethylbenzene	1,480	20		ug/L	20	95-63-6	Y
sec-Butylbenzene	Not detected	20		ug/L	20	135-98-8	Y
p-Isopropyltoluene	Not detected	100		ug/L	20	99-87-6	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2,3-Trimethylbenzene	400	20		ug/L	20	526-73-8	Y
n-Butylbenzene	Not detected	20		ug/L	20	104-51-8	Y
Hexachloroethane	Not detected	100		ug/L	20	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	100		ug/L	20	87-61-6	Y
Naphthalene	200	100		ug/L	20	91-20-3	Y
2-Methylnaphthalene	Not detected	100		ug/L	20	91-57-6	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S37369.06

Sample Tag: Tripblank_08

Collected Date/Time: 06/22/2022 00:01

Matrix: Water

COC Reference: 148782

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/24/22 08:50	BML	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 12:42, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37369.06 (continued)

Sample Tag: Tripblank_08

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/23/22 12:42, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID:S37369

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: Racer PNC / 30112891.00005

Submitted:06/22/2022 15:00 Login User: PFD

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 5.8
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☒ No ☐ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

REPORT TO

CONTACT NAME				Tiffany Linder			
COMPANY				Arcadis			
ADDRESS				28550 Cabot Dr #500			
CITY			STATE		ZIP CODE		
Novi			MI				
PHONE NO.			CELL NO.		P.O. NO.		
(248) 994-2240							
E-MAIL ADDRESS				QUOTE NO.			
Tiffany.Linder@arcadis.com							

CHAIN OF CUSTODY RECORD

CONTACT NAME		☐ SAME	
COMPANY			
ADDRESS			
CITY		STATE	ZIP CODE
PHONE NO.	E-MAIL ADDRESS		

INVOICE TO

PROJECT NO./NAME	30112891.00005	SAMPLER(S) - PLEASE PRINT/SIGN NAME
TURNAROUND TIME REQUIRED		
☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ STANDARD ☐ OTHER		
DELIVERABLES REQUIRED		
☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER		

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications

☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations

☐ Detroit ☐ New York☐ Other _____

Special Instructions

MATRIX	W=WATER	GW=GROUNDWATER	WW=WASTEWATER	S=SOIL	L=LIQUID	SD=SOLID
CODE:	SL=SLUDGE	DW=DRINKING WATER	O=OIL	WP=WIPE	A=AIR	WS=WASTE

Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	☐ Other _____
	DATE	TIME											Special Instructions
37349.01	6/21/22	1455	JS-MW-19-GW-062122	GW	3		X						X
.02	6/22/22	0918	JS-MW-22-GW-062222	GW	3		X						X
.03	6/22/22	1210	JS-MW-09-GW-062222	GW	3		X						X
.04	6/22/22	1150	JS-MW-10-GW-062222	GW	3		X						X
.05	6/22/22	-	DUP-02-GW-062222	GW	3		X						X
.06	-	-	Trip blank -08	W	1		X						X
SG 6/22													

RELINQUISHED BY:	<i>Summer Guy</i>	☒ Sampler	DATE	TIME
SIGNATURE/ORGANIZATION			6/22/22	1300
RECEIVED BY:	<i>J. Galt</i>		DATE	TIME
SIGNATURE/ORGANIZATION			6/18/22	1300
RELINQUISHED BY:	<i>Summer</i>		DATE	TIME
SIGNATURE/ORGANIZATION			6/20/22	15:40
RECEIVED BY:	<i>Patricia</i>		DATE	TIME
SIGNATURE/ORGANIZATION			6/22/22	1300

RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION			DATE	TIME
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES	TEMP ON ARRIVAL <u>58</u>
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS		

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Analytical Laboratory Report

Report ID: S37418.01(01)
Generated on 06/29/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S37418.01-S37418.07
Project: Racer PNC / 30112891.00005
Collected Date(s): 06/22/2022 - 06/23/2022
Submitted Date/Time: 06/23/2022 12:00
Sampled by: Sommer Guy
P.O. #: 30112891.00005

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Analytical Laboratory Report

Sample Summary (7 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S37418.01	JS-MW-16_GW-062222	Groundwater	06/22/22 14:00
S37418.02	JS-MW-16_GW-062222 MS	Groundwater	06/22/22 14:00
S37418.03	JS-MW-16_GW-062222 MSD	Groundwater	06/22/22 14:00
S37418.04	JS-MW-21_GW-062222	Groundwater	06/22/22 15:17
S37418.05	JS-MW-20_GW-062322	Groundwater	06/23/22 08:50
S37418.06	JS-MW-27_GW-062322	Groundwater	06/23/22 09:50
S37418.07	Tripblank_05	Water	06/23/22 00:01



Analytical Laboratory Report

Lab Sample ID: S37418.01

Sample Tag: JS-MW-16_GW-062222

Collected Date/Time: 06/22/2022 14:00

Matrix: Groundwater

COC Reference: 148781

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/29/22 09:30	BDO	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 14:23, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	2	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37418.01 (continued)

Sample Tag: JS-MW-16_GW-062222

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 14:23, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	8	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	13	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	3	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	20	1		ug/L	1	95-63-6	
sec-Butylbenzene	1	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	3	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37418.02

Sample Tag: JS-MW-16_GW-062222 MS

Collected Date/Time: 06/22/2022 14:00

Matrix: Groundwater

COC Reference: 148781

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/29/22 09:30	BDO	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 12:28, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	54	10		ug/L	1	60-29-7	1
Acetone	70	50		ug/L	1	67-64-1	1
Methyl iodide	55	1		ug/L	1	74-88-4	1
Carbon disulfide	54	5		ug/L	1	75-15-0	1
tert-Methyl butyl ether (MTBE)	54	5		ug/L	1	1634-04-4	1
Acrylonitrile	58	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	59	25		ug/L	1	78-93-3	1
Dichlorodifluoromethane	52	5		ug/L	1	75-71-8	1
Chloromethane	50	5		ug/L	1	74-87-3	1
Vinyl chloride	53	1		ug/L	1	75-01-4	1
Bromomethane	53	5		ug/L	1	74-83-9	1
Chloroethane	52	5		ug/L	1	75-00-3	1
Trichlorofluoromethane	52	1		ug/L	1	75-69-4	1
1,1-Dichloroethene	52	1		ug/L	1	75-35-4	1
Methylene chloride	54	5		ug/L	1	75-09-2	1
trans-1,2-Dichloroethene	52	1		ug/L	1	156-60-5	1
1,1-Dichloroethane	52	1		ug/L	1	75-34-3	1
cis-1,2-Dichloroethene	53	1		ug/L	1	156-59-2	1
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	1
Chloroform	54	1		ug/L	1	67-66-3	1
Bromochloromethane	54	1		ug/L	1	74-97-5	1
1,1,1-Trichloroethane	52	1		ug/L	1	71-55-6	1
4-Methyl-2-pentanone (MIBK)	54	50		ug/L	1	108-10-1	1
2-Hexanone	56	50		ug/L	1	591-78-6	1
Carbon tetrachloride	51	1		ug/L	1	56-23-5	1
Benzene	54	1		ug/L	1	71-43-2	1
1,2-Dichloroethane	49	1		ug/L	1	107-06-2	1
Trichloroethene	52	1		ug/L	1	79-01-6	1
1,2-Dichloropropane	52	1		ug/L	1	78-87-5	1
Bromodichloromethane	52	1		ug/L	1	75-27-4	1
Dibromomethane	53	5		ug/L	1	74-95-3	1
cis-1,3-Dichloropropene	53	1		ug/L	1	10061-01-5	1
Toluene	52	1		ug/L	1	108-88-3	1
trans-1,3-Dichloropropene	53	1		ug/L	1	10061-02-6	1
1,1,2-Trichloroethane	53	1		ug/L	1	79-00-5	1
Tetrachloroethene	53	1		ug/L	1	127-18-4	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S37418.02 (continued)

Sample Tag: JS-MW-16_GW-062222 MS

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 12:28, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,4-Dichloro-2-butene	45	1		ug/L	1	110-57-6	1
Dibromochloromethane	50	5		ug/L	1	124-48-1	1
1,2-Dibromoethane	50	1		ug/L	1	106-93-4	1
Chlorobenzene	49	1		ug/L	1	108-90-7	1
1,1,1,2-Tetrachloroethane	50	1		ug/L	1	630-20-6	1
Ethylbenzene	50	1		ug/L	1	100-41-4	1
p,m-Xylene*	105	2		ug/L	1		1
o-Xylene	49	1		ug/L	1	95-47-6	1
Styrene	50	1		ug/L	1	100-42-5	1
Isopropylbenzene	53	5		ug/L	1	98-82-8	1
Bromoform	51	1		ug/L	1	75-25-2	1
1,1,2,2-Tetrachloroethane	49	1		ug/L	1	79-34-5	1
1,2,3-Trichloropropane	50	1		ug/L	1	96-18-4	1
n-Propylbenzene	61	1		ug/L	1	103-65-1	1
Bromobenzene	50	1		ug/L	1	108-86-1	1
1,3,5-Trimethylbenzene	53	1		ug/L	1	108-67-8	1
tert-Butylbenzene	51	1		ug/L	1	98-06-6	1
1,2,4-Trimethylbenzene	67	1		ug/L	1	95-63-6	1
sec-Butylbenzene	47	1		ug/L	1	135-98-8	1
p-Isopropyltoluene	46	5		ug/L	1	99-87-6	1
1,3-Dichlorobenzene	46	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	46	1		ug/L	1	106-46-7	1
1,2-Dichlorobenzene	47	1		ug/L	1	95-50-1	1
1,2,3-Trimethylbenzene	49	1		ug/L	1	526-73-8	1
n-Butylbenzene	46	1		ug/L	1	104-51-8	1
Hexachloroethane	49	5		ug/L	1	67-72-1	1
1,2-Dibromo-3-chloropropane	51	5		ug/L	1	96-12-8	1
1,2,4-Trichlorobenzene	52	5		ug/L	1	120-82-1	1
1,2,3-Trichlorobenzene	53	5		ug/L	1	87-61-6	1
Naphthalene	58	5		ug/L	1	91-20-3	1
2-Methylnaphthalene	68	5		ug/L	1	91-57-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S37418.03

Sample Tag: JS-MW-16_GW-062222 MSD

Collected Date/Time: 06/22/2022 14:00

Matrix: Groundwater

COC Reference: 148781

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/29/22 09:30	BDO	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 12:47, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	52	10		ug/L	1	60-29-7	1
Acetone	70	50		ug/L	1	67-64-1	1
Methyl iodide	52	1		ug/L	1	74-88-4	1
Carbon disulfide	51	5		ug/L	1	75-15-0	1
tert-Methyl butyl ether (MTBE)	53	5		ug/L	1	1634-04-4	1
Acrylonitrile	58	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	60	25		ug/L	1	78-93-3	1
Dichlorodifluoromethane	50	5		ug/L	1	75-71-8	1
Chloromethane	49	5		ug/L	1	74-87-3	1
Vinyl chloride	51	1		ug/L	1	75-01-4	1
Bromomethane	50	5		ug/L	1	74-83-9	1
Chloroethane	50	5		ug/L	1	75-00-3	1
Trichlorofluoromethane	50	1		ug/L	1	75-69-4	1
1,1-Dichloroethene	49	1		ug/L	1	75-35-4	1
Methylene chloride	51	5		ug/L	1	75-09-2	1
trans-1,2-Dichloroethene	50	1		ug/L	1	156-60-5	1
1,1-Dichloroethane	50	1		ug/L	1	75-34-3	1
cis-1,2-Dichloroethene	51	1		ug/L	1	156-59-2	1
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	1
Chloroform	51	1		ug/L	1	67-66-3	1
Bromochloromethane	52	1		ug/L	1	74-97-5	1
1,1,1-Trichloroethane	49	1		ug/L	1	71-55-6	1
4-Methyl-2-pentanone (MIBK)	54	50		ug/L	1	108-10-1	1
2-Hexanone	58	50		ug/L	1	591-78-6	1
Carbon tetrachloride	50	1		ug/L	1	56-23-5	1
Benzene	51	1		ug/L	1	71-43-2	1
1,2-Dichloroethane	47	1		ug/L	1	107-06-2	1
Trichloroethene	50	1		ug/L	1	79-01-6	1
1,2-Dichloropropane	50	1		ug/L	1	78-87-5	1
Bromodichloromethane	50	1		ug/L	1	75-27-4	1
Dibromomethane	52	5		ug/L	1	74-95-3	1
cis-1,3-Dichloropropene	51	1		ug/L	1	10061-01-5	1
Toluene	51	1		ug/L	1	108-88-3	1
trans-1,3-Dichloropropene	51	1		ug/L	1	10061-02-6	1
1,1,2-Trichloroethane	52	1		ug/L	1	79-00-5	1
Tetrachloroethene	51	1		ug/L	1	127-18-4	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S37418.03 (continued)

Sample Tag: JS-MW-16_GW-062222 MSD

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 12:47, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,4-Dichloro-2-butene	44	1		ug/L	1	110-57-6	1
Dibromochloromethane	49	5		ug/L	1	124-48-1	1
1,2-Dibromoethane	49	1		ug/L	1	106-93-4	1
Chlorobenzene	48	1		ug/L	1	108-90-7	1
1,1,1,2-Tetrachloroethane	48	1		ug/L	1	630-20-6	1
Ethylbenzene	48	1		ug/L	1	100-41-4	1
p,m-Xylene*	101	2		ug/L	1		1
o-Xylene	47	1		ug/L	1	95-47-6	1
Styrene	48	1		ug/L	1	100-42-5	1
Isopropylbenzene	51	5		ug/L	1	98-82-8	1
Bromoform	49	1		ug/L	1	75-25-2	1
1,1,2,2-Tetrachloroethane	49	1		ug/L	1	79-34-5	1
1,2,3-Trichloropropane	49	1		ug/L	1	96-18-4	1
n-Propylbenzene	60	1		ug/L	1	103-65-1	1
Bromobenzene	48	1		ug/L	1	108-86-1	1
1,3,5-Trimethylbenzene	51	1		ug/L	1	108-67-8	1
tert-Butylbenzene	50	1		ug/L	1	98-06-6	1
1,2,4-Trimethylbenzene	67	1		ug/L	1	95-63-6	1
sec-Butylbenzene	45	1		ug/L	1	135-98-8	1
p-Isopropyltoluene	45	5		ug/L	1	99-87-6	1
1,3-Dichlorobenzene	44	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	44	1		ug/L	1	106-46-7	1
1,2-Dichlorobenzene	45	1		ug/L	1	95-50-1	1
1,2,3-Trimethylbenzene	48	1		ug/L	1	526-73-8	1
n-Butylbenzene	44	1		ug/L	1	104-51-8	1
Hexachloroethane	46	5		ug/L	1	67-72-1	1
1,2-Dibromo-3-chloropropane	52	5		ug/L	1	96-12-8	1
1,2,4-Trichlorobenzene	49	5		ug/L	1	120-82-1	1
1,2,3-Trichlorobenzene	50	5		ug/L	1	87-61-6	1
Naphthalene	58	5		ug/L	1	91-20-3	1
2-Methylnaphthalene	64	5		ug/L	1	91-57-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S37418.04

Sample Tag: JS-MW-21_GW-062222

Collected Date/Time: 06/22/2022 15:17

Matrix: Groundwater

COC Reference: 148781

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/29/22 09:30	BDO	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 14:43, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37418.04 (continued)

Sample Tag: JS-MW-21_GW-062222

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 14:43, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37418.05

Sample Tag: JS-MW-20_GW-062322

Collected Date/Time: 06/23/2022 08:50

Matrix: Groundwater

COC Reference: 148781

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/29/22 09:30	BDO	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 15:02, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37418.05 (continued)

Sample Tag: JS-MW-20_GW-062322

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 15:02, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37418.06

Sample Tag: JS-MW-27_GW-062322

Collected Date/Time: 06/23/2022 09:50

Matrix: Groundwater

COC Reference: 148781

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/29/22 09:30	BDO	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 15:21, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	5	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37418.06 (continued)

Sample Tag: JS-MW-27_GW-062322

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 15:21, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37418.07

Sample Tag: Tripblank_05

Collected Date/Time: 06/23/2022 00:01

Matrix: Water

COC Reference: 148781

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/29/22 09:30	BDO	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 14:04, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37418.07 (continued)

Sample Tag: Tripblank_05

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/28/22 14:04, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID:S37418

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: Racer PNC / 30112891.00005

Submitted:06/23/2022 12:00 Login User: MMC

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 5.4
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontracted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☒ No ☐ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

REPORT TO

CONTACT NAME				Tiffany Linder							
COMPANY				Arcadis							
ADDRESS								28550 Cabot Dr #500			
CITY				STATE		ZIP CODE					
NOVI				MI							
PHONE NO.				CELL NO.				P.O. NO.			
248 994 2240											
E-MAIL ADDRESS				QUOTE NO.							
tiffany.linder@arcadis.com											

CHAIN OF CUSTODY RECORD

CONTACT NAME		☐ SAME	
COMPANY			
ADDRESS			
CITY		STATE	ZIP CODE
PHONE NO.		E-MAIL ADDRESS	

INVOICE TO

PROJECT NO./NAME	Racer PNC 30112891.00005	SAMPLER(S) - PLEASE PRINT/SIGN NAME	Semmer Guy [Signature]
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ STANDARD ☐ OTHER			
DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER			

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

MATRIX	W=WATER	GW=GROUNDWATER	WW=WASTEWATER	S=SOIL	L=LIQUID	SD=SOLID
CODE:	SL=SLUDGE	DW=DRINKING WATER	O=OIL	WP=WIPE	A=AIR	WS=WASTE

Containers & Preservatives

Certifications

☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations

☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	NOC							☐ Other _____ Special Instructions
	DATE	TIME																		
.01/.02.03	6/22/22	1400	JS-MW-16-GW-062222	GW	9		X						X							MS MSD
37418.04	6/22/22	1517	JS-MW-21-GW-062222	GW	3		X						X							
.05	6/23/22	0850	JS-MW-20-GW-062322	GW	3		X						X							
.06	6/23/22	0950	JS-MW-27-GW-062322	GW	3		X						X							
.07	-	-	Trip blank -05	W	1		X						X							
X SG 6/23																				

RELINQUISHED BY:	Summer buy Arcadis	☒ Sampler	DATE	TIME
SIGNATURE/ORGANIZATION			6/23/22	10:50
RECEIVED BY:	Summer		DATE	TIME
SIGNATURE/ORGANIZATION			6/23/22	11:30
RELINQUISHED BY:	Summer		DATE	TIME
SIGNATURE/ORGANIZATION			6/23/22	12:00
RECEIVED BY:	M. Kilday		DATE	TIME
SIGNATURE/ORGANIZATION			6/23/22	12:00

RELINQUISHED BY:			DATE	TIME
SIGNATURE/ORGANIZATION				
RECEIVED BY:			DATE	TIME
SIGNATURE/ORGANIZATION				
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES:	TEMP. ON ARRIVAL
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	5.4	



Analytical Laboratory Report

Report ID: S40367.01(01)
Generated on 09/21/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40367.01-S40367.11
Project: Racer PNC/30112891.00005
Collected Date(s): 09/14/2022 - 09/15/2022
Submitted Date/Time: 09/15/2022 14:30
Sampled by: Sommer Guy
P.O. #: 30112891.00005

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Analytical Laboratory Report

Sample Summary (11 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40367.01	JS-MW-30_GW-091422	Groundwater	09/14/22 12:55
S40367.02	JS-MW-23_GW-091422	Groundwater	09/14/22 14:00
S40367.03	JS-MW-22_GW-091422	Groundwater	09/14/22 14:50
S40367.04	TripBlank_50	Water	09/14/22 00:01
S40367.05	JS-MW-21_GW-091422	Groundwater	09/14/22 15:50
S40367.06	JS-MW-16_GW-091522	Groundwater	09/15/22 09:25
S40367.07	JS-MW-16_GW-091522 MS	Groundwater	09/15/22 09:25
S40367.08	JS-MW-16_GW-091522 MSD	Groundwater	09/15/22 09:25
S40367.09	JS-MW-19_GW-091522	Groundwater	09/15/22 11:50
S40367.10	JS-MW-09_GW-091522	Groundwater	09/15/22 12:10
S40367.11	DUP-01_GW-091522	Groundwater	09/15/22 00:01



Analytical Laboratory Report

Lab Sample ID: S40367.01

Sample Tag: JS-MW-30_GW-091422

Collected Date/Time: 09/14/2022 12:55

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 06:54, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40367.01 (continued)
Sample Tag: JS-MW-30_GW-091422

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 06:54, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40367.02

Sample Tag: JS-MW-23_GW-091422

Collected Date/Time: 09/14/2022 14:00

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 07:18, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	7	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	16	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	1	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40367.02 (continued)
Sample Tag: JS-MW-23_GW-091422

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 07:18, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	8	2		ug/L	1		
Isopropylbenzene	2	1		ug/L	1	98-82-8	
Cyclohexane	15	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	7	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40367.03

Sample Tag: JS-MW-22_GW-091422

Collected Date/Time: 09/14/2022 14:50

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 07:41, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40367.03 (continued)
Sample Tag: JS-MW-22_GW-091422

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 07:41, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40367.04

Sample Tag: TripBlank_50

Collected Date/Time: 09/14/2022 00:01

Matrix: Water

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 02:34, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40367.04 (continued)
Sample Tag: TripBlank_50

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 02:34, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40367.05

Sample Tag: JS-MW-21_GW-091422

Collected Date/Time: 09/14/2022 15:50

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:05, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40367.05 (continued)
Sample Tag: JS-MW-21_GW-091422

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:05, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40367.06

Sample Tag: JS-MW-16_GW-091522

Collected Date/Time: 09/15/2022 09:25

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 03:22, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	7	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	13	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40367.06 (continued)
Sample Tag: JS-MW-16_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 03:22, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	12	2		ug/L	1		
Isopropylbenzene	2	1		ug/L	1	98-82-8	
Cyclohexane	47	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	5	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40367.07

Sample Tag: JS-MW-16_GW-091522 MS

Collected Date/Time: 09/15/2022 09:25

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 00:36, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	77	50		ug/L	1	67-64-1	1
2-Butanone (MEK)	56	25		ug/L	1	78-93-3	1
Benzene	52	1		ug/L	1	71-43-2	1
Bromodichloromethane	51	1		ug/L	1	75-27-4	1
Bromoform	59	1		ug/L	1	75-25-2	1
Bromomethane	47	5		ug/L	1	74-83-9	1
Carbon disulfide	41	5		ug/L	1	75-15-0	1
Carbon tetrachloride	46	1		ug/L	1	56-23-5	1
Chlorobenzene	51	1		ug/L	1	108-90-7	1
Chloroethane	46	5		ug/L	1	75-00-3	1
Chloroform	47	1		ug/L	1	67-66-3	1
Chloromethane	44	5		ug/L	1	74-87-3	1
1,2-Dibromo-3-chloropropane	55	5		ug/L	1	96-12-8	1
1,2-Dichlorobenzene	49	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	58	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	50	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	49	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	50	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	48	1		ug/L	1	156-59-2	1
Dibromochloromethane	55	5		ug/L	1	124-48-1	1
Dichlorodifluoromethane	31	5		ug/L	1	75-71-8	1
trans-1,2-Dichloroethene	43	1		ug/L	1	156-60-5	1
Ethylbenzene	48	1		ug/L	1	100-41-4	1
2-Hexanone	55	50		ug/L	1	591-78-6	1
4-Methyl-2-pentanone (MIBK)	52	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	44	5		ug/L	1	1634-04-4	1
Methylene chloride	47	5		ug/L	1	75-09-2	1
Styrene	52	1		ug/L	1	100-42-5	1
1,1,1-Trichloroethane	44	1		ug/L	1	71-55-6	1
1,1,2-Trichloroethane	53	1		ug/L	1	79-00-5	1
1,2,4-Trichlorobenzene	45	5		ug/L	1	120-82-1	1
Tetrachloroethene	48	1		ug/L	1	127-18-4	1
Toluene	47	1		ug/L	1	108-88-3	1
Trichloroethene	48	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	26	1		ug/L	1	75-69-4	1
Vinyl chloride	40	1		ug/L	1	75-01-4	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S40367.07 (continued)
Sample Tag: JS-MW-16_GW-091522 MS

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 00:36, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	50	1		ug/L	1	95-47-6	1
p,m-Xylene*	108	2		ug/L	1		1
Isopropylbenzene	50	1		ug/L	1	98-82-8	1
Cyclohexane	78	1		ug/L	1	110-82-7	1
1,1-Dichloroethane	45	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	41	1		ug/L	1	75-35-4	1
Methyl Acetate	40	10		ug/L	1	79-20-9	1
Methyl cyclohexane	40	1		ug/L	1	108-87-2	1
1,1,2-Trichloro-1,2,2-trifluoroethane	40	1		ug/L	1	76-13-1	1
1,2-Dibromoethane	55	1		ug/L	1	106-93-4	1
1,1,2,2-Tetrachloroethane	54	1		ug/L	1	79-34-5	1
cis-1,3-Dichloropropene	50	1		ug/L	1	10061-01-5	1
trans-1,3-Dichloropropene	51	1		ug/L	1	10061-02-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S40367.08

Sample Tag: JS-MW-16_GW-091522 MSD

Collected Date/Time: 09/15/2022 09:25

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 01:00, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	83	50		ug/L	1	67-64-1	1
2-Butanone (MEK)	63	25		ug/L	1	78-93-3	1
Benzene	58	1		ug/L	1	71-43-2	1
Bromodichloromethane	56	1		ug/L	1	75-27-4	1
Bromoform	64	1		ug/L	1	75-25-2	1
Bromomethane	52	5		ug/L	1	74-83-9	1
Carbon disulfide	46	5		ug/L	1	75-15-0	1
Carbon tetrachloride	52	1		ug/L	1	56-23-5	1
Chlorobenzene	55	1		ug/L	1	108-90-7	1
Chloroethane	50	5		ug/L	1	75-00-3	1
Chloroform	52	1		ug/L	1	67-66-3	1
Chloromethane	47	5		ug/L	1	74-87-3	1
1,2-Dibromo-3-chloropropane	62	5		ug/L	1	96-12-8	1
1,2-Dichlorobenzene	54	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	63	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	54	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	53	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	54	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	52	1		ug/L	1	156-59-2	1
Dibromochloromethane	60	5		ug/L	1	124-48-1	1
Dichlorodifluoromethane	33	5		ug/L	1	75-71-8	1
trans-1,2-Dichloroethene	48	1		ug/L	1	156-60-5	1
Ethylbenzene	53	1		ug/L	1	100-41-4	1
2-Hexanone	60	50		ug/L	1	591-78-6	1
4-Methyl-2-pentanone (MIBK)	56	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	49	5		ug/L	1	1634-04-4	1
Methylene chloride	52	5		ug/L	1	75-09-2	1
Styrene	56	1		ug/L	1	100-42-5	1
1,1,1-Trichloroethane	49	1		ug/L	1	71-55-6	1
1,1,2-Trichloroethane	56	1		ug/L	1	79-00-5	1
1,2,4-Trichlorobenzene	51	5		ug/L	1	120-82-1	1
Tetrachloroethene	52	1		ug/L	1	127-18-4	1
Toluene	51	1		ug/L	1	108-88-3	1
Trichloroethene	51	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	25	1		ug/L	1	75-69-4	1
Vinyl chloride	43	1		ug/L	1	75-01-4	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S40367.08 (continued)

Sample Tag: JS-MW-16_GW-091522 MSD

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 01:00, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	54	1		ug/L	1	95-47-6	1
p,m-Xylene*	117	2		ug/L	1		1
Isopropylbenzene	55	1		ug/L	1	98-82-8	1
Cyclohexane	84	1		ug/L	1	110-82-7	1
1,1-Dichloroethane	49	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	45	1		ug/L	1	75-35-4	1
Methyl Acetate	45	10		ug/L	1	79-20-9	1
Methyl cyclohexane	43	1		ug/L	1	108-87-2	1
1,1,2-Trichloro-1,2,2-trifluoroethane	44	1		ug/L	1	76-13-1	1
1,2-Dibromoethane	58	1		ug/L	1	106-93-4	1
1,1,2,2-Tetrachloroethane	61	1		ug/L	1	79-34-5	1
cis-1,3-Dichloropropene	54	1		ug/L	1	10061-01-5	1
trans-1,3-Dichloropropene	55	1		ug/L	1	10061-02-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Lab Sample ID: S40367.09

Sample Tag: JS-MW-19_GW-091522

Collected Date/Time: 09/15/2022 11:50

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:29, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	5	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40367.09 (continued)
Sample Tag: JS-MW-19_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:29, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	3	2		ug/L	1		
Isopropylbenzene	3	1		ug/L	1	98-82-8	
Cyclohexane	18	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	4	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40367.10

Sample Tag: JS-MW-09_GW-091522

Collected Date/Time: 09/15/2022 12:10

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:52, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Benzene	420	20		ug/L	20	71-43-2	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
Ethylbenzene	980	20		ug/L	20	100-41-4	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y
Toluene	70	20		ug/L	20	108-88-3	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S40367.10 (continued)
Sample Tag: JS-MW-09_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:52, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	60	20		ug/L	20	95-47-6	Y
p,m-Xylene*	2,860	40		ug/L	20		Y
Isopropylbenzene	20	20		ug/L	20	98-82-8	Y
Cyclohexane	360	20		ug/L	20	110-82-7	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methyl Acetate	Not detected	200		ug/L	20	79-20-9	Y
Methyl cyclohexane	120	20		ug/L	20	108-87-2	Y
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	20		ug/L	20	76-13-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S40367.11

Sample Tag: DUP-01_GW-091522

Collected Date/Time: 09/15/2022 00:01

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 09:15, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Benzene	490	20		ug/L	20	71-43-2	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
Ethylbenzene	1,420	20		ug/L	20	100-41-4	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y
Toluene	100	20		ug/L	20	108-88-3	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S40367.11 (continued)

Sample Tag: DUP-01_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 09:15, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	90	20		ug/L	20	95-47-6	Y
p,m-Xylene*	4,140	40		ug/L	20		Y
Isopropylbenzene	30	20		ug/L	20	98-82-8	Y
Cyclohexane	420	20		ug/L	20	110-82-7	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methyl Acetate	Not detected	200		ug/L	20	79-20-9	Y
Methyl cyclohexane	140	20		ug/L	20	108-87-2	Y
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	20		ug/L	20	76-13-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y

Y-Elevated reporting limit due to high target concentration

Merit Laboratories Login Checklist

Lab Set ID:S40367

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: Racer PNC/30112891.00005

Submitted:09/15/2022 14:30 Login User: BJB

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 5.0
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontracted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☒ No ☐ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



Report ID: S40367.01(02)
Generated on 10/03/2022
Replaces report S40367.01(01) generated on 09/21/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40367.01-S40367.11
Project: Racer PNC/30112891.00005
Collected Date(s): 09/14/2022 - 09/15/2022
Submitted Date/Time: 09/15/2022 14:30
Sampled by: Sommer Guy
P.O. #: 30112891.00005

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Maya Murshak
Technical Director



General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

Report full VOC list per client request

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Sample Summary (11 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40367.01	JS-MW-30_GW-091422	Groundwater	09/14/22 12:55
S40367.02	JS-MW-23_GW-091422	Groundwater	09/14/22 14:00
S40367.03	JS-MW-22_GW-091422	Groundwater	09/14/22 14:50
S40367.04	TripBlank_50	Water	09/14/22 00:01
S40367.05	JS-MW-21_GW-091422	Groundwater	09/14/22 15:50
S40367.06	JS-MW-16_GW-091522	Groundwater	09/15/22 09:25
S40367.07	JS-MW-16_GW-091522 MS	Groundwater	09/15/22 09:25
S40367.08	JS-MW-16_GW-091522 MSD	Groundwater	09/15/22 09:25
S40367.09	JS-MW-19_GW-091522	Groundwater	09/15/22 11:50
S40367.10	JS-MW-09_GW-091522	Groundwater	09/15/22 12:10
S40367.11	DUP-01_GW-091522	Groundwater	09/15/22 00:01



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.01

Sample Tag: JS-MW-30_GW-091422

Collected Date/Time: 09/14/2022 12:55

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 06:54, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.01 (continued)

Sample Tag: JS-MW-30_GW-091422

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 06:54, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 06:54, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.01 (continued)

Sample Tag: JS-MW-30_GW-091422

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 06:54, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.02

Sample Tag: JS-MW-23_GW-091422

Collected Date/Time: 09/14/2022 14:00

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 07:18, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	7	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	16	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	1	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.02 (continued)

Sample Tag: JS-MW-23_GW-091422

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 07:18, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	8	2		ug/L	1		
Isopropylbenzene	2	1		ug/L	1	98-82-8	
Cyclohexane	15	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	7	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 07:18, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	7	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	1	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.02 (continued)

Sample Tag: JS-MW-23_GW-091422

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 07:18, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	16	1		ug/L	1	100-41-4	
p,m-Xylene*	8	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	9	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	2	1		ug/L	1	95-63-6	
sec-Butylbenzene	1	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	3	1		ug/L	1	526-73-8	
n-Butylbenzene	2	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.03

Sample Tag: JS-MW-22_GW-091422

Collected Date/Time: 09/14/2022 14:50

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 07:41, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.03 (continued)

Sample Tag: JS-MW-22_GW-091422

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 07:41, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 07:41, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	

Lab Sample ID: S40367.03 (continued)

Sample Tag: JS-MW-22_GW-091422

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 07:41, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.04

Sample Tag: TripBlank_50

Collected Date/Time: 09/14/2022 00:01

Matrix: Water

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 02:34, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.04 (continued)

Sample Tag: TripBlank_50

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 02:34, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 02:34, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.04 (continued)

Sample Tag: TripBlank_50

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 02:34, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.05

Sample Tag: JS-MW-21_GW-091422

Collected Date/Time: 09/14/2022 15:50

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:05, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.05 (continued)

Sample Tag: JS-MW-21_GW-091422

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:05, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 08:05, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	

Lab Sample ID: S40367.05 (continued)

Sample Tag: JS-MW-21_GW-091422

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 08:05, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.06

Sample Tag: JS-MW-16_GW-091522

Collected Date/Time: 09/15/2022 09:25

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 03:22, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	7	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	13	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.06 (continued)

Sample Tag: JS-MW-16_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 03:22, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	12	2		ug/L	1		
Isopropylbenzene	2	1		ug/L	1	98-82-8	
Cyclohexane	47	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	5	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 03:22, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	7	1		ug/L	1	71-43-2	
1,2-Dichloroethane	13	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.06 (continued)

Sample Tag: JS-MW-16_GW-091522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 03:22, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	12	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	2	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	6	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	5	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.07

Sample Tag: JS-MW-16_GW-091522 MS

Collected Date/Time: 09/15/2022 09:25

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 00:36, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	77	50		ug/L	1	67-64-1	1
2-Butanone (MEK)	56	25		ug/L	1	78-93-3	1
Benzene	52	1		ug/L	1	71-43-2	1
Bromodichloromethane	51	1		ug/L	1	75-27-4	1
Bromoform	59	1		ug/L	1	75-25-2	1
Bromomethane	47	5		ug/L	1	74-83-9	1
Carbon disulfide	41	5		ug/L	1	75-15-0	1
Carbon tetrachloride	46	1		ug/L	1	56-23-5	1
Chlorobenzene	51	1		ug/L	1	108-90-7	1
Chloroethane	46	5		ug/L	1	75-00-3	1
Chloroform	47	1		ug/L	1	67-66-3	1
Chloromethane	44	5		ug/L	1	74-87-3	1
1,2-Dibromo-3-chloropropane	55	5		ug/L	1	96-12-8	1
1,2-Dichlorobenzene	49	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	58	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	50	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	49	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	50	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	48	1		ug/L	1	156-59-2	1
Dibromochloromethane	55	5		ug/L	1	124-48-1	1
Dichlorodifluoromethane	31	5		ug/L	1	75-71-8	1
trans-1,2-Dichloroethene	43	1		ug/L	1	156-60-5	1
Ethylbenzene	48	1		ug/L	1	100-41-4	1
2-Hexanone	55	50		ug/L	1	591-78-6	1
4-Methyl-2-pentanone (MIBK)	52	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	44	5		ug/L	1	1634-04-4	1
Methylene chloride	47	5		ug/L	1	75-09-2	1
Styrene	52	1		ug/L	1	100-42-5	1
1,1,1-Trichloroethane	44	1		ug/L	1	71-55-6	1
1,1,2-Trichloroethane	53	1		ug/L	1	79-00-5	1
1,2,4-Trichlorobenzene	45	5		ug/L	1	120-82-1	1
Tetrachloroethene	48	1		ug/L	1	127-18-4	1
Toluene	47	1		ug/L	1	108-88-3	1
Trichloroethene	48	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	26	1		ug/L	1	75-69-4	1
Vinyl chloride	40	1		ug/L	1	75-01-4	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.07 (continued)

Sample Tag: JS-MW-16_GW-091522 MS

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 00:36, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	50	1		ug/L	1	95-47-6	1
p,m-Xylene*	108	2		ug/L	1		1
Isopropylbenzene	50	1		ug/L	1	98-82-8	1
Cyclohexane	78	1		ug/L	1	110-82-7	1
1,1-Dichloroethane	45	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	41	1		ug/L	1	75-35-4	1
Methyl Acetate	40	10		ug/L	1	79-20-9	1
Methyl cyclohexane	40	1		ug/L	1	108-87-2	1
1,1,2-Trichloro-1,2,2-trifluoroethane	40	1		ug/L	1	76-13-1	1
1,2-Dibromoethane	55	1		ug/L	1	106-93-4	1
1,1,2,2-Tetrachloroethane	54	1		ug/L	1	79-34-5	1
cis-1,3-Dichloropropene	50	1		ug/L	1	10061-01-5	1
trans-1,3-Dichloropropene	51	1		ug/L	1	10061-02-6	1

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 00:36, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	47	10		ug/L	1	60-29-7	1
Acetone	77	50		ug/L	1	67-64-1	1
Methyl iodide	46	1		ug/L	1	74-88-4	1
Carbon disulfide	41	5		ug/L	1	75-15-0	1
tert-Methyl butyl ether (MTBE)	44	5		ug/L	1	1634-04-4	1
Acrylonitrile	57	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	56	25		ug/L	1	78-93-3	1
Dichlorodifluoromethane	31	5		ug/L	1	75-71-8	1
Chloromethane	44	5		ug/L	1	74-87-3	1
Vinyl chloride	40	1		ug/L	1	75-01-4	1
Bromomethane	47	5		ug/L	1	74-83-9	1
Chloroethane	46	5		ug/L	1	75-00-3	1
Trichlorofluoromethane	26	1		ug/L	1	75-69-4	1
1,1-Dichloroethene	41	1		ug/L	1	75-35-4	1
Methylene chloride	47	5		ug/L	1	75-09-2	1
trans-1,2-Dichloroethene	43	1		ug/L	1	156-60-5	1
1,1-Dichloroethane	45	1		ug/L	1	75-34-3	1
cis-1,2-Dichloroethene	48	1		ug/L	1	156-59-2	1
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	1
Chloroform	47	1		ug/L	1	67-66-3	1
Bromochloromethane	51	1		ug/L	1	74-97-5	1
1,1,1-Trichloroethane	44	1		ug/L	1	71-55-6	1
4-Methyl-2-pentanone (MIBK)	52	50		ug/L	1	108-10-1	1
2-Hexanone	55	50		ug/L	1	591-78-6	1
Carbon tetrachloride	46	1		ug/L	1	56-23-5	1
Benzene	52	1		ug/L	1	71-43-2	1
1,2-Dichloroethane	58	1		ug/L	1	107-06-2	1
Trichloroethene	48	1		ug/L	1	79-01-6	1
1,2-Dichloropropane	50	1		ug/L	1	78-87-5	1
Bromodichloromethane	51	1		ug/L	1	75-27-4	1
Dibromomethane	55	5		ug/L	1	74-95-3	1
cis-1,3-Dichloropropene	50	1		ug/L	1	10061-01-5	1
Toluene	47	1		ug/L	1	108-88-3	1

1-Spiked at 50ug/L

Lab Sample ID: S40367.07 (continued)

Sample Tag: JS-MW-16_GW-091522 MS

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 00:36, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	51	1		ug/L	1	10061-02-6	1
1,1,2-Trichloroethane	53	1		ug/L	1	79-00-5	1
Tetrachloroethene	48	1		ug/L	1	127-18-4	1
trans-1,4-Dichloro-2-butene	52	1		ug/L	1	110-57-6	1
Dibromochloromethane	55	5		ug/L	1	124-48-1	1
1,2-Dibromoethane	55	1		ug/L	1	106-93-4	1
Chlorobenzene	51	1		ug/L	1	108-90-7	1
1,1,1,2-Tetrachloroethane	53	1		ug/L	1	630-20-6	1
Ethylbenzene	48	1		ug/L	1	100-41-4	1
p,m-Xylene*	108	2		ug/L	1		1
o-Xylene	50	1		ug/L	1	95-47-6	1
Styrene	52	1		ug/L	1	100-42-5	1
Isopropylbenzene	50	5		ug/L	1	98-82-8	1
Bromoform	59	1		ug/L	1	75-25-2	1
1,1,2,2-Tetrachloroethane	54	1		ug/L	1	79-34-5	1
1,2,3-Trichloropropane	55	1		ug/L	1	96-18-4	1
n-Propylbenzene	48	1		ug/L	1	103-65-1	1
Bromobenzene	54	1		ug/L	1	108-86-1	1
1,3,5-Trimethylbenzene	49	1		ug/L	1	108-67-8	1
tert-Butylbenzene	46	1		ug/L	1	98-06-6	1
1,2,4-Trimethylbenzene	53	1		ug/L	1	95-63-6	1
sec-Butylbenzene	41	1		ug/L	1	135-98-8	1
p-Isopropyltoluene	42	5		ug/L	1	99-87-6	1
1,3-Dichlorobenzene	49	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	50	1		ug/L	1	106-46-7	1
1,2-Dichlorobenzene	49	1		ug/L	1	95-50-1	1
1,2,3-Trimethylbenzene	49	1		ug/L	1	526-73-8	1
n-Butylbenzene	39	1		ug/L	1	104-51-8	1
Hexachloroethane	44	5		ug/L	1	67-72-1	1
1,2-Dibromo-3-chloropropane	55	5		ug/L	1	96-12-8	1
1,2,4-Trichlorobenzene	45	5		ug/L	1	120-82-1	1
1,2,3-Trichlorobenzene	45	5		ug/L	1	87-61-6	1
Naphthalene	50	5		ug/L	1	91-20-3	1
2-Methylnaphthalene	42	5		ug/L	1	91-57-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.08

Sample Tag: JS-MW-16_GW-091522 MSD

Collected Date/Time: 09/15/2022 09:25

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles**Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 01:00, Analyst: BML**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	83	50		ug/L	1	67-64-1	1
2-Butanone (MEK)	63	25		ug/L	1	78-93-3	1
Benzene	58	1		ug/L	1	71-43-2	1
Bromodichloromethane	56	1		ug/L	1	75-27-4	1
Bromoform	64	1		ug/L	1	75-25-2	1
Bromomethane	52	5		ug/L	1	74-83-9	1
Carbon disulfide	46	5		ug/L	1	75-15-0	1
Carbon tetrachloride	52	1		ug/L	1	56-23-5	1
Chlorobenzene	55	1		ug/L	1	108-90-7	1
Chloroethane	50	5		ug/L	1	75-00-3	1
Chloroform	52	1		ug/L	1	67-66-3	1
Chloromethane	47	5		ug/L	1	74-87-3	1
1,2-Dibromo-3-chloropropane	62	5		ug/L	1	96-12-8	1
1,2-Dichlorobenzene	54	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	63	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	54	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	53	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	54	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	52	1		ug/L	1	156-59-2	1
Dibromochloromethane	60	5		ug/L	1	124-48-1	1
Dichlorodifluoromethane	33	5		ug/L	1	75-71-8	1
trans-1,2-Dichloroethene	48	1		ug/L	1	156-60-5	1
Ethylbenzene	53	1		ug/L	1	100-41-4	1
2-Hexanone	60	50		ug/L	1	591-78-6	1
4-Methyl-2-pentanone (MIBK)	56	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	49	5		ug/L	1	1634-04-4	1
Methylene chloride	52	5		ug/L	1	75-09-2	1
Styrene	56	1		ug/L	1	100-42-5	1
1,1,1-Trichloroethane	49	1		ug/L	1	71-55-6	1
1,1,2-Trichloroethane	56	1		ug/L	1	79-00-5	1
1,2,4-Trichlorobenzene	51	5		ug/L	1	120-82-1	1
Tetrachloroethene	52	1		ug/L	1	127-18-4	1
Toluene	51	1		ug/L	1	108-88-3	1
Trichloroethene	51	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	25	1		ug/L	1	75-69-4	1
Vinyl chloride	43	1		ug/L	1	75-01-4	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.08 (continued)
Sample Tag: JS-MW-16_GW-091522 MSD

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 01:00, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	54	1		ug/L	1	95-47-6	1
p,m-Xylene*	117	2		ug/L	1		1
Isopropylbenzene	55	1		ug/L	1	98-82-8	1
Cyclohexane	84	1		ug/L	1	110-82-7	1
1,1-Dichloroethane	49	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	45	1		ug/L	1	75-35-4	1
Methyl Acetate	45	10		ug/L	1	79-20-9	1
Methyl cyclohexane	43	1		ug/L	1	108-87-2	1
1,1,2-Trichloro-1,2,2-trifluoroethane	44	1		ug/L	1	76-13-1	1
1,2-Dibromoethane	58	1		ug/L	1	106-93-4	1
1,1,2,2-Tetrachloroethane	61	1		ug/L	1	79-34-5	1
cis-1,3-Dichloropropene	54	1		ug/L	1	10061-01-5	1
trans-1,3-Dichloropropene	55	1		ug/L	1	10061-02-6	1

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 01:00, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	53	10		ug/L	1	60-29-7	1
Acetone	83	50		ug/L	1	67-64-1	1
Methyl iodide	51	1		ug/L	1	74-88-4	1
Carbon disulfide	46	5		ug/L	1	75-15-0	1
tert-Methyl butyl ether (MTBE)	49	5		ug/L	1	1634-04-4	1
Acrylonitrile	63	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	63	25		ug/L	1	78-93-3	1
Dichlorodifluoromethane	33	5		ug/L	1	75-71-8	1
Chloromethane	47	5		ug/L	1	74-87-3	1
Vinyl chloride	43	1		ug/L	1	75-01-4	1
Bromomethane	52	5		ug/L	1	74-83-9	1
Chloroethane	50	5		ug/L	1	75-00-3	1
Trichlorofluoromethane	25	1		ug/L	1	75-69-4	1
1,1-Dichloroethene	45	1		ug/L	1	75-35-4	1
Methylene chloride	52	5		ug/L	1	75-09-2	1
trans-1,2-Dichloroethene	48	1		ug/L	1	156-60-5	1
1,1-Dichloroethane	49	1		ug/L	1	75-34-3	1
cis-1,2-Dichloroethene	52	1		ug/L	1	156-59-2	1
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	1
Chloroform	52	1		ug/L	1	67-66-3	1
Bromochloromethane	55	1		ug/L	1	74-97-5	1
1,1,1-Trichloroethane	49	1		ug/L	1	71-55-6	1
4-Methyl-2-pentanone (MIBK)	56	50		ug/L	1	108-10-1	1
2-Hexanone	60	50		ug/L	1	591-78-6	1
Carbon tetrachloride	52	1		ug/L	1	56-23-5	1
Benzene	58	1		ug/L	1	71-43-2	1
1,2-Dichloroethane	63	1		ug/L	1	107-06-2	1
Trichloroethene	51	1		ug/L	1	79-01-6	1
1,2-Dichloropropane	54	1		ug/L	1	78-87-5	1
Bromodichloromethane	56	1		ug/L	1	75-27-4	1
Dibromomethane	59	5		ug/L	1	74-95-3	1
cis-1,3-Dichloropropene	54	1		ug/L	1	10061-01-5	1
Toluene	51	1		ug/L	1	108-88-3	1

1-Spiked at 50ug/L

Lab Sample ID: S40367.08 (continued)
Sample Tag: JS-MW-16_GW-091522 MSD

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 01:00, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	55	1		ug/L	1	10061-02-6	1
1,1,2-Trichloroethane	56	1		ug/L	1	79-00-5	1
Tetrachloroethene	52	1		ug/L	1	127-18-4	1
trans-1,4-Dichloro-2-butene	56	1		ug/L	1	110-57-6	1
Dibromochloromethane	60	5		ug/L	1	124-48-1	1
1,2-Dibromoethane	58	1		ug/L	1	106-93-4	1
Chlorobenzene	55	1		ug/L	1	108-90-7	1
1,1,1,2-Tetrachloroethane	58	1		ug/L	1	630-20-6	1
Ethylbenzene	53	1		ug/L	1	100-41-4	1
p,m-Xylene*	117	2		ug/L	1		1
o-Xylene	54	1		ug/L	1	95-47-6	1
Styrene	56	1		ug/L	1	100-42-5	1
Isopropylbenzene	55	5		ug/L	1	98-82-8	1
Bromoform	64	1		ug/L	1	75-25-2	1
1,1,2,2-Tetrachloroethane	61	1		ug/L	1	79-34-5	1
1,2,3-Trichloropropane	60	1		ug/L	1	96-18-4	1
n-Propylbenzene	53	1		ug/L	1	103-65-1	1
Bromobenzene	59	1		ug/L	1	108-86-1	1
1,3,5-Trimethylbenzene	55	1		ug/L	1	108-67-8	1
tert-Butylbenzene	50	1		ug/L	1	98-06-6	1
1,2,4-Trimethylbenzene	59	1		ug/L	1	95-63-6	1
sec-Butylbenzene	45	1		ug/L	1	135-98-8	1
p-Isopropyltoluene	47	5		ug/L	1	99-87-6	1
1,3-Dichlorobenzene	53	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	54	1		ug/L	1	106-46-7	1
1,2-Dichlorobenzene	54	1		ug/L	1	95-50-1	1
1,2,3-Trimethylbenzene	54	1		ug/L	1	526-73-8	1
n-Butylbenzene	44	1		ug/L	1	104-51-8	1
Hexachloroethane	49	5		ug/L	1	67-72-1	1
1,2-Dibromo-3-chloropropane	62	5		ug/L	1	96-12-8	1
1,2,4-Trichlorobenzene	51	5		ug/L	1	120-82-1	1
1,2,3-Trichlorobenzene	51	5		ug/L	1	87-61-6	1
Naphthalene	56	5		ug/L	1	91-20-3	1
2-Methylnaphthalene	47	5		ug/L	1	91-57-6	1

1-Spiked at 50ug/L



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.09

Sample Tag: JS-MW-19_GW-091522

Collected Date/Time: 09/15/2022 11:50

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:29, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	5	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.09 (continued)

Sample Tag: JS-MW-19_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:29, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	3	2		ug/L	1		
Isopropylbenzene	3	1		ug/L	1	98-82-8	
Cyclohexane	18	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	4	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 08:29, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	5	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	

Lab Sample ID: S40367.09 (continued)

Sample Tag: JS-MW-19_GW-091522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 08:29, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	3	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	7	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.10

Sample Tag: JS-MW-09_GW-091522

Collected Date/Time: 09/15/2022 12:10

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:52, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Benzene	420	20		ug/L	20	71-43-2	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
Ethylbenzene	980	20		ug/L	20	100-41-4	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y
Toluene	70	20		ug/L	20	108-88-3	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40367.10 (continued)

Sample Tag: JS-MW-09_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 08:52, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	60	20		ug/L	20	95-47-6	Y
p,m-Xylene*	2,860	40		ug/L	20		Y
Isopropylbenzene	20	20		ug/L	20	98-82-8	Y
Cyclohexane	360	20		ug/L	20	110-82-7	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methyl Acetate	Not detected	200		ug/L	20	79-20-9	Y
Methyl cyclohexane	120	20		ug/L	20	108-87-2	Y
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	20		ug/L	20	76-13-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 08:52, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/L	20	60-29-7	Y
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
Methyl iodide	Not detected	20		ug/L	20	74-88-4	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Acrylonitrile	Not detected	40		ug/L	20	107-13-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Tetrahydrofuran*	Not detected	1,800		ug/L	20	109-99-9	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Bromochloromethane	Not detected	20		ug/L	20	74-97-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Benzene	420	20		ug/L	20	71-43-2	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Dibromomethane	Not detected	100		ug/L	20	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
Toluene	70	20		ug/L	20	108-88-3	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40367.10 (continued)

Sample Tag: JS-MW-09_GW-091522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 08:52, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y
trans-1,4-Dichloro-2-butene	Not detected	20		ug/L	20	110-57-6	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	20		ug/L	20	630-20-6	Y
Ethylbenzene	980	20		ug/L	20	100-41-4	Y
p,m-Xylene*	2,860	40		ug/L	20		Y
o-Xylene	60	20		ug/L	20	95-47-6	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
Isopropylbenzene	Not detected	100		ug/L	20	98-82-8	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
1,2,3-Trichloropropane	Not detected	20		ug/L	20	96-18-4	Y
n-Propylbenzene	90	20		ug/L	20	103-65-1	Y
Bromobenzene	Not detected	20		ug/L	20	108-86-1	Y
1,3,5-Trimethylbenzene	230	20		ug/L	20	108-67-8	Y
tert-Butylbenzene	Not detected	20		ug/L	20	98-06-6	Y
1,2,4-Trimethylbenzene	810	20		ug/L	20	95-63-6	Y
sec-Butylbenzene	Not detected	20		ug/L	20	135-98-8	Y
p-Isopropyltoluene	Not detected	100		ug/L	20	99-87-6	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2,3-Trimethylbenzene	210	20		ug/L	20	526-73-8	Y
n-Butylbenzene	Not detected	20		ug/L	20	104-51-8	Y
Hexachloroethane	Not detected	100		ug/L	20	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	100		ug/L	20	87-61-6	Y
Naphthalene	100	100		ug/L	20	91-20-3	Y
2-Methylnaphthalene	Not detected	100		ug/L	20	91-57-6	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40367.11

Sample Tag: DUP-01_GW-091522

Collected Date/Time: 09/15/2022 00:01

Matrix: Groundwater

COC Reference: 157352

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 13:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 09:15, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Benzene	490	20		ug/L	20	71-43-2	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
Ethylbenzene	1,420	20		ug/L	20	100-41-4	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y
Toluene	100	20		ug/L	20	108-88-3	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40367.11 (continued)

Sample Tag: DUP-01_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/21/22 09:15, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	90	20		ug/L	20	95-47-6	Y
p,m-Xylene*	4,140	40		ug/L	20		Y
Isopropylbenzene	30	20		ug/L	20	98-82-8	Y
Cyclohexane	420	20		ug/L	20	110-82-7	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methyl Acetate	Not detected	200		ug/L	20	79-20-9	Y
Methyl cyclohexane	140	20		ug/L	20	108-87-2	Y
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	20		ug/L	20	76-13-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 09:15, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/L	20	60-29-7	Y
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
Methyl iodide	Not detected	20		ug/L	20	74-88-4	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Acrylonitrile	Not detected	40		ug/L	20	107-13-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Tetrahydrofuran*	Not detected	1,800		ug/L	20	109-99-9	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Bromochloromethane	Not detected	20		ug/L	20	74-97-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Benzene	490	20		ug/L	20	71-43-2	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Dibromomethane	Not detected	100		ug/L	20	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
Toluene	100	20		ug/L	20	108-88-3	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40367.11 (continued)

Sample Tag: DUP-01_GW-091522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/21/22 09:15, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
Tetrachloroethene	Not detected	20		ug/L	20	127-18-4	Y
trans-1,4-Dichloro-2-butene	Not detected	20		ug/L	20	110-57-6	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	20		ug/L	20	630-20-6	Y
Ethylbenzene	1,420	20		ug/L	20	100-41-4	Y
p,m-Xylene*	4,140	40		ug/L	20		Y
o-Xylene	90	20		ug/L	20	95-47-6	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
Isopropylbenzene	Not detected	100		ug/L	20	98-82-8	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
1,2,3-Trichloropropane	Not detected	20		ug/L	20	96-18-4	Y
n-Propylbenzene	150	20		ug/L	20	103-65-1	Y
Bromobenzene	Not detected	20		ug/L	20	108-86-1	Y
1,3,5-Trimethylbenzene	360	20		ug/L	20	108-67-8	Y
tert-Butylbenzene	Not detected	20		ug/L	20	98-06-6	Y
1,2,4-Trimethylbenzene	1,280	20		ug/L	20	95-63-6	Y
sec-Butylbenzene	Not detected	20		ug/L	20	135-98-8	Y
p-Isopropyltoluene	Not detected	100		ug/L	20	99-87-6	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2,3-Trimethylbenzene	320	20		ug/L	20	526-73-8	Y
n-Butylbenzene	Not detected	20		ug/L	20	104-51-8	Y
Hexachloroethane	Not detected	100		ug/L	20	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	100		ug/L	20	87-61-6	Y
Naphthalene	200	100		ug/L	20	91-20-3	Y
2-Methylnaphthalene	Not detected	100		ug/L	20	91-57-6	Y

Y-Elevated reporting limit due to high target concentration

Merit Laboratories Login Checklist

Lab Set ID:S40367

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: Racer PNC/30112891.00005

Submitted:09/15/2022 14:30 Login User: BJB

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 5.0
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontracted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☒ No ☐ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com



Analytical Laboratory Report

Report ID: S40442.01(01)
Generated on 09/23/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40442.01-S40442.08
Project: 30112891.00005/Racer PNC
Collected Date(s): 09/15/2022 - 09/16/2022
Submitted Date/Time: 09/16/2022 14:35
Sampled by: Sommer Guy
P.O. #: 30112891.00005

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

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Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Analytical Laboratory Report

Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40442.01	JS-MW-05_GW-091522	Groundwater	09/15/22 14:00
S40442.02	JS-MW-20_GW-091522	Groundwater	09/15/22 14:50
S40442.03	Trip Blank_51	Water	09/15/22 00:01
S40442.04	JS-MW-24_GW-091622	Groundwater	09/16/22 09:55
S40442.05	JS-MW-10_GW-091622	Groundwater	09/16/22 12:45
S40442.06	JS-MW-04_GW-091622	Groundwater	09/16/22 12:35
S40442.07	JS-MW-27_GW-091622	Groundwater	09/16/22 12:20
S40442.08	DUP-02_GW-091622	Groundwater	09/16/22 00:01



Analytical Laboratory Report

Lab Sample ID: S40442.01

Sample Tag: JS-MW-05_GW-091522

Collected Date/Time: 09/15/2022 14:00

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/23/22 08:55, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	500		ug/L	10	67-64-1	Y
2-Butanone (MEK)	Not detected	250		ug/L	10	78-93-3	Y
Benzene	1,880	10		ug/L	10	71-43-2	Y
Bromodichloromethane	Not detected	10		ug/L	10	75-27-4	Y
Bromoform	Not detected	10		ug/L	10	75-25-2	Y
Bromomethane	Not detected	50		ug/L	10	74-83-9	Y
Carbon disulfide	Not detected	50		ug/L	10	75-15-0	Y
Carbon tetrachloride	Not detected	10		ug/L	10	56-23-5	Y
Chlorobenzene	Not detected	10		ug/L	10	108-90-7	Y
Chloroethane	Not detected	50		ug/L	10	75-00-3	Y
Chloroform	Not detected	10		ug/L	10	67-66-3	Y
Chloromethane	Not detected	50		ug/L	10	74-87-3	Y
1,2-Dibromo-3-chloropropane	Not detected	50		ug/L	10	96-12-8	Y
1,2-Dichlorobenzene	Not detected	10		ug/L	10	95-50-1	Y
1,2-Dichloroethane	Not detected	10		ug/L	10	107-06-2	Y
1,2-Dichloropropane	Not detected	10		ug/L	10	78-87-5	Y
1,3-Dichlorobenzene	Not detected	10		ug/L	10	541-73-1	Y
1,4-Dichlorobenzene	Not detected	10		ug/L	10	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	10		ug/L	10	156-59-2	Y
Dibromochloromethane	Not detected	50		ug/L	10	124-48-1	Y
Dichlorodifluoromethane	Not detected	50		ug/L	10	75-71-8	Y
trans-1,2-Dichloroethene	Not detected	10		ug/L	10	156-60-5	Y
Ethylbenzene	690	10		ug/L	10	100-41-4	Y
2-Hexanone	Not detected	500		ug/L	10	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	500		ug/L	10	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	50		ug/L	10	1634-04-4	Y
Methylene chloride	Not detected	50		ug/L	10	75-09-2	Y
Styrene	Not detected	10		ug/L	10	100-42-5	Y
1,1,1-Trichloroethane	Not detected	10		ug/L	10	71-55-6	Y
1,1,2-Trichloroethane	Not detected	10		ug/L	10	79-00-5	Y
1,2,4-Trichlorobenzene	Not detected	50		ug/L	10	120-82-1	Y
Tetrachloroethene	Not detected	10		ug/L	10	127-18-4	Y
Toluene	100	10		ug/L	10	108-88-3	Y
Trichloroethene	Not detected	10		ug/L	10	79-01-6	Y
Trichlorofluoromethane	Not detected	10		ug/L	10	75-69-4	Y
Vinyl chloride	Not detected	10		ug/L	10	75-01-4	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S40442.01 (continued)

Sample Tag: JS-MW-05_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/23/22 08:55, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	40	10		ug/L	10	95-47-6	Y
p,m-Xylene*	1,370	20		ug/L	10		Y
Isopropylbenzene	20	10		ug/L	10	98-82-8	Y
Cyclohexane	540	10		ug/L	10	110-82-7	Y
1,1-Dichloroethane	Not detected	10		ug/L	10	75-34-3	Y
1,1-Dichloroethene	Not detected	10		ug/L	10	75-35-4	Y
Methyl Acetate	Not detected	100		ug/L	10	79-20-9	Y
Methyl cyclohexane	230	10		ug/L	10	108-87-2	Y
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	10		ug/L	10	76-13-1	Y
1,2-Dibromoethane	Not detected	10		ug/L	10	106-93-4	Y
1,1,2,2-Tetrachloroethane	Not detected	10		ug/L	10	79-34-5	Y
cis-1,3-Dichloropropene	Not detected	10		ug/L	10	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	10		ug/L	10	10061-02-6	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S40442.02

Sample Tag: JS-MW-20_GW-091522

Collected Date/Time: 09/15/2022 14:50

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 16:44, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40442.02 (continued)
Sample Tag: JS-MW-20_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 16:44, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40442.03

Sample Tag: Trip Blank_51

Collected Date/Time: 09/15/2022 00:01

Matrix: Water

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 13:59, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40442.03 (continued)

Sample Tag: Trip Blank_51

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 13:59, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40442.04

Sample Tag: JS-MW-24_GW-091622

Collected Date/Time: 09/16/2022 09:55

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:07, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40442.04 (continued)

Sample Tag: JS-MW-24_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:07, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40442.05

Sample Tag: JS-MW-10_GW-091622

Collected Date/Time: 09/16/2022 12:45

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:31, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	2	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40442.05 (continued)
Sample Tag: JS-MW-10_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:31, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40442.06

Sample Tag: JS-MW-04_GW-091622

Collected Date/Time: 09/16/2022 12:35

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:55, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40442.06 (continued)

Sample Tag: JS-MW-04_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:55, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40442.07

Sample Tag: JS-MW-27_GW-091622

Collected Date/Time: 09/16/2022 12:20

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 18:18, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	4	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40442.07 (continued)

Sample Tag: JS-MW-27_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 18:18, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	



Analytical Laboratory Report

Lab Sample ID: S40442.08

Sample Tag: DUP-02_GW-091622

Collected Date/Time: 09/16/2022 00:01

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/22/22 05:25, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S40442.08 (continued)

Sample Tag: DUP-02_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/22/22 05:25, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Merit Laboratories Login Checklist

Lab Set ID:S40442

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: 30112891.00005/Racer PNC

Submitted:09/16/2022 14:35 Login User: BJB

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 5.1
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☒ No ☐ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____ 157361

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME <u>Tiffany Linder</u>			
COMPANY <u>Arcadis</u>			
ADDRESS <u>28550 Cabot Dr #50D</u>			
CITY <u>Novi</u>	STATE <u>MI</u>	ZIP CODE <u>48377</u>	
PHONE NO.	CELL NO.	P.O. NO.	
E-MAIL ADDRESS <u>tiffany.linder@arcadis.com</u>		QUOTE NO.	

CONTACT NAME		☐ SAME	
COMPANY			
ADDRESS			
CITY	STATE	ZIP CODE	
PHONE NO.	E-MAIL ADDRESS		

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME <u>30112891.00005 / Racer PNC</u>	SAMPLER(S) - PLEASE PRINT/SIGN NAME <u>Sommer Guy / Sommer Shuy</u>
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER	
DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER	

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	8260																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						</

RELINQUISHED BY: SIGNATURE/ORGANIZATION <u>Sommer Shuy</u>	☒ Sampler	DATE <u>9/16/22</u> TIME <u>1435</u>
RECEIVED BY: SIGNATURE/ORGANIZATION <u>Johnna Murray</u>		DATE <u>9/16/22</u> TIME <u>1435</u>
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
NOTES		TEMP. ON ARRIVAL <u>5.1</u>

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Report ID: S40442.01(02)
Generated on 10/03/2022
Replaces report S40442.01(01) generated on 09/23/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Tiffany Linder, Ian Drost

Report produced by

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John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40442.01-S40442.08
Project: 30112891.00005/Racer PNC
Collected Date(s): 09/15/2022 - 09/16/2022
Submitted Date/Time: 09/16/2022 14:35
Sampled by: Sommer Guy
P.O. #: 30112891.00005

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Maya Murshak
Technical Director



General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

Report full VOC list per client request

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003



Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40442.01	JS-MW-05_GW-091522	Groundwater	09/15/22 14:00
S40442.02	JS-MW-20_GW-091522	Groundwater	09/15/22 14:50
S40442.03	Trip Blank_51	Water	09/15/22 00:01
S40442.04	JS-MW-24_GW-091622	Groundwater	09/16/22 09:55
S40442.05	JS-MW-10_GW-091622	Groundwater	09/16/22 12:45
S40442.06	JS-MW-04_GW-091622	Groundwater	09/16/22 12:35
S40442.07	JS-MW-27_GW-091622	Groundwater	09/16/22 12:20
S40442.08	DUP-02_GW-091622	Groundwater	09/16/22 00:01



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.01

Sample Tag: JS-MW-05_GW-091522

Collected Date/Time: 09/15/2022 14:00

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/23/22 08:55, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	500		ug/L	10	67-64-1	Y
2-Butanone (MEK)	Not detected	250		ug/L	10	78-93-3	Y
Benzene	1,880	10		ug/L	10	71-43-2	Y
Bromodichloromethane	Not detected	10		ug/L	10	75-27-4	Y
Bromoform	Not detected	10		ug/L	10	75-25-2	Y
Bromomethane	Not detected	50		ug/L	10	74-83-9	Y
Carbon disulfide	Not detected	50		ug/L	10	75-15-0	Y
Carbon tetrachloride	Not detected	10		ug/L	10	56-23-5	Y
Chlorobenzene	Not detected	10		ug/L	10	108-90-7	Y
Chloroethane	Not detected	50		ug/L	10	75-00-3	Y
Chloroform	Not detected	10		ug/L	10	67-66-3	Y
Chloromethane	Not detected	50		ug/L	10	74-87-3	Y
1,2-Dibromo-3-chloropropane	Not detected	50		ug/L	10	96-12-8	Y
1,2-Dichlorobenzene	Not detected	10		ug/L	10	95-50-1	Y
1,2-Dichloroethane	Not detected	10		ug/L	10	107-06-2	Y
1,2-Dichloropropane	Not detected	10		ug/L	10	78-87-5	Y
1,3-Dichlorobenzene	Not detected	10		ug/L	10	541-73-1	Y
1,4-Dichlorobenzene	Not detected	10		ug/L	10	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	10		ug/L	10	156-59-2	Y
Dibromochloromethane	Not detected	50		ug/L	10	124-48-1	Y
Dichlorodifluoromethane	Not detected	50		ug/L	10	75-71-8	Y
trans-1,2-Dichloroethene	Not detected	10		ug/L	10	156-60-5	Y
Ethylbenzene	690	10		ug/L	10	100-41-4	Y
2-Hexanone	Not detected	500		ug/L	10	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	500		ug/L	10	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	50		ug/L	10	1634-04-4	Y
Methylene chloride	Not detected	50		ug/L	10	75-09-2	Y
Styrene	Not detected	10		ug/L	10	100-42-5	Y
1,1,1-Trichloroethane	Not detected	10		ug/L	10	71-55-6	Y
1,1,2-Trichloroethane	Not detected	10		ug/L	10	79-00-5	Y
1,2,4-Trichlorobenzene	Not detected	50		ug/L	10	120-82-1	Y
Tetrachloroethene	Not detected	10		ug/L	10	127-18-4	Y
Toluene	100	10		ug/L	10	108-88-3	Y
Trichloroethene	Not detected	10		ug/L	10	79-01-6	Y
Trichlorofluoromethane	Not detected	10		ug/L	10	75-69-4	Y
Vinyl chloride	Not detected	10		ug/L	10	75-01-4	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.01 (continued)

Sample Tag: JS-MW-05_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/23/22 08:55, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	40	10		ug/L	10	95-47-6	Y
p,m-Xylene*	1,370	20		ug/L	10		Y
Isopropylbenzene	20	10		ug/L	10	98-82-8	Y
Cyclohexane	540	10		ug/L	10	110-82-7	Y
1,1-Dichloroethane	Not detected	10		ug/L	10	75-34-3	Y
1,1-Dichloroethene	Not detected	10		ug/L	10	75-35-4	Y
Methyl Acetate	Not detected	100		ug/L	10	79-20-9	Y
Methyl cyclohexane	230	10		ug/L	10	108-87-2	Y
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	10		ug/L	10	76-13-1	Y
1,2-Dibromoethane	Not detected	10		ug/L	10	106-93-4	Y
1,1,2,2-Tetrachloroethane	Not detected	10		ug/L	10	79-34-5	Y
cis-1,3-Dichloropropene	Not detected	10		ug/L	10	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	10		ug/L	10	10061-02-6	Y

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/23/22 08:55, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	100		ug/L	10	60-29-7	Y
Acetone	Not detected	500		ug/L	10	67-64-1	Y
Methyl iodide	Not detected	10		ug/L	10	74-88-4	Y
Carbon disulfide	Not detected	50		ug/L	10	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	50		ug/L	10	1634-04-4	Y
Acrylonitrile	Not detected	20		ug/L	10	107-13-1	Y
2-Butanone (MEK)	Not detected	250		ug/L	10	78-93-3	Y
Dichlorodifluoromethane	Not detected	50		ug/L	10	75-71-8	Y
Chloromethane	Not detected	50		ug/L	10	74-87-3	Y
Vinyl chloride	Not detected	10		ug/L	10	75-01-4	Y
Bromomethane	Not detected	50		ug/L	10	74-83-9	Y
Chloroethane	Not detected	50		ug/L	10	75-00-3	Y
Trichlorofluoromethane	Not detected	10		ug/L	10	75-69-4	Y
1,1-Dichloroethene	Not detected	10		ug/L	10	75-35-4	Y
Methylene chloride	Not detected	50		ug/L	10	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	10		ug/L	10	156-60-5	Y
1,1-Dichloroethane	Not detected	10		ug/L	10	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	10		ug/L	10	156-59-2	Y
Tetrahydrofuran*	Not detected	900		ug/L	10	109-99-9	Y
Chloroform	Not detected	10		ug/L	10	67-66-3	Y
Bromochloromethane	Not detected	10		ug/L	10	74-97-5	Y
1,1,1-Trichloroethane	Not detected	10		ug/L	10	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	500		ug/L	10	108-10-1	Y
2-Hexanone	Not detected	500		ug/L	10	591-78-6	Y
Carbon tetrachloride	Not detected	10		ug/L	10	56-23-5	Y
Benzene	1,880	10		ug/L	10	71-43-2	Y
1,2-Dichloroethane	Not detected	10		ug/L	10	107-06-2	Y
Trichloroethene	Not detected	10		ug/L	10	79-01-6	Y
1,2-Dichloropropane	Not detected	10		ug/L	10	78-87-5	Y
Bromodichloromethane	Not detected	10		ug/L	10	75-27-4	Y
Dibromomethane	Not detected	50		ug/L	10	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	10		ug/L	10	10061-01-5	Y
Toluene	100	10		ug/L	10	108-88-3	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40442.01 (continued)

Sample Tag: JS-MW-05_GW-091522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/23/22 08:55, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	10		ug/L	10	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	10		ug/L	10	79-00-5	Y
Tetrachloroethene	Not detected	10		ug/L	10	127-18-4	Y
trans-1,4-Dichloro-2-butene	Not detected	10		ug/L	10	110-57-6	Y
Dibromochloromethane	Not detected	50		ug/L	10	124-48-1	Y
1,2-Dibromoethane	Not detected	10		ug/L	10	106-93-4	Y
Chlorobenzene	Not detected	10		ug/L	10	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	10		ug/L	10	630-20-6	Y
Ethylbenzene	690	10		ug/L	10	100-41-4	Y
p,m-Xylene*	1,370	20		ug/L	10		Y
o-Xylene	40	10		ug/L	10	95-47-6	Y
Styrene	Not detected	10		ug/L	10	100-42-5	Y
Isopropylbenzene	Not detected	50		ug/L	10	98-82-8	Y
Bromoform	Not detected	10		ug/L	10	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	10		ug/L	10	79-34-5	Y
1,2,3-Trichloropropane	Not detected	10		ug/L	10	96-18-4	Y
n-Propylbenzene	70	10		ug/L	10	103-65-1	Y
Bromobenzene	Not detected	10		ug/L	10	108-86-1	Y
1,3,5-Trimethylbenzene	70	10		ug/L	10	108-67-8	Y
tert-Butylbenzene	Not detected	10		ug/L	10	98-06-6	Y
1,2,4-Trimethylbenzene	210	10		ug/L	10	95-63-6	Y
sec-Butylbenzene	Not detected	10		ug/L	10	135-98-8	Y
p-Isopropyltoluene	Not detected	50		ug/L	10	99-87-6	Y
1,3-Dichlorobenzene	Not detected	10		ug/L	10	541-73-1	Y
1,4-Dichlorobenzene	Not detected	10		ug/L	10	106-46-7	Y
1,2-Dichlorobenzene	Not detected	10		ug/L	10	95-50-1	Y
1,2,3-Trimethylbenzene	140	10		ug/L	10	526-73-8	Y
n-Butylbenzene	Not detected	10		ug/L	10	104-51-8	Y
Hexachloroethane	Not detected	50		ug/L	10	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	50		ug/L	10	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	50		ug/L	10	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	50		ug/L	10	87-61-6	Y
Naphthalene	300	50		ug/L	10	91-20-3	Y
2-Methylnaphthalene	Not detected	50		ug/L	10	91-57-6	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.02

Sample Tag: JS-MW-20_GW-091522

Collected Date/Time: 09/15/2022 14:50

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 16:44, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.02 (continued)

Sample Tag: JS-MW-20_GW-091522

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 16:44, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 16:44, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.02 (continued)

Sample Tag: JS-MW-20_GW-091522

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 16:44, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.03

Sample Tag: Trip Blank_51

Collected Date/Time: 09/15/2022 00:01

Matrix: Water

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 13:59, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40442.03 (continued)

Sample Tag: Trip Blank_51

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 13:59, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 13:59, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	

Lab Sample ID: S40442.03 (continued)

Sample Tag: Trip Blank_51

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 13:59, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.04

Sample Tag: JS-MW-24_GW-091622

Collected Date/Time: 09/16/2022 09:55

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:07, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.04 (continued)

Sample Tag: JS-MW-24_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:07, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 17:07, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	

Lab Sample ID: S40442.04 (continued)

Sample Tag: JS-MW-24_GW-091622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 17:07, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.05

Sample Tag: JS-MW-10_GW-091622

Collected Date/Time: 09/16/2022 12:45

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:31, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	2	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.05 (continued)

Sample Tag: JS-MW-10_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:31, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 17:31, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	2	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.05 (continued)

Sample Tag: JS-MW-10_GW-091622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 17:31, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.06

Sample Tag: JS-MW-04_GW-091622

Collected Date/Time: 09/16/2022 12:35

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:55, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.06 (continued)

Sample Tag: JS-MW-04_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 17:55, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 17:55, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	

Lab Sample ID: S40442.06 (continued)

Sample Tag: JS-MW-04_GW-091622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 17:55, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.07

Sample Tag: JS-MW-27_GW-091622

Collected Date/Time: 09/16/2022 12:20

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 18:18, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	4	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.07 (continued)

Sample Tag: JS-MW-27_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/20/22 18:18, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 18:18, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	4	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	

Lab Sample ID: S40442.07 (continued)

Sample Tag: JS-MW-27_GW-091622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/20/22 18:18, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.08

Sample Tag: DUP-02_GW-091622

Collected Date/Time: 09/16/2022 00:01

Matrix: Groundwater

COC Reference: 157361

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/21/22 09:30	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/22/22 05:25, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S40442.08 (continued)

Sample Tag: DUP-02_GW-091622

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/22/22 05:25, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/22/22 05:25, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	

Lab Sample ID: S40442.08 (continued)

Sample Tag: DUP-02_GW-091622

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 09/22/22 05:25, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID:S40442

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: 30112891.00005/Racer PNC

Submitted:09/16/2022 14:35 Login User: BJB

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 5.1
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☒ No ☐ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____ 157361

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME <u>Tiffany Linder</u>			
COMPANY <u>Arcadis</u>			
ADDRESS <u>28550 Cabot Dr #50D</u>			
CITY <u>Novi</u>	STATE <u>MI</u>	ZIP CODE <u>48377</u>	
PHONE NO.	CELL NO.	P.O. NO.	
E-MAIL ADDRESS <u>tiffany.linder@arcadis.com</u>		QUOTE NO.	

CONTACT NAME		☐ SAME	
COMPANY			
ADDRESS			
CITY	STATE	ZIP CODE	
PHONE NO.	E-MAIL ADDRESS		

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME <u>30112891.00005 / Racer PNC</u>	SAMPLER(S) - PLEASE PRINT/SIGN NAME <u>Sommer Guy / Sommer Shuy</u>
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER	
DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER	

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	8260												☐ Other _____																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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RELINQUISHED BY: SIGNATURE/ORGANIZATION <u>Sommer Shuy</u>	☒ Sampler	DATE <u>9/16/22</u> TIME <u>1435</u>
RECEIVED BY: SIGNATURE/ORGANIZATION <u>Johanna Murray</u>		DATE <u>9/16/22</u> TIME <u>1435</u>
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
NOTES		TEMP. ON ARRIVAL <u>5.1</u>

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Analytical Laboratory Report

Report ID: S43653.01(01)
Generated on 01/04/2023

Report to
Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Additional Contacts: Tiffany Linder, Ian Drost

Report produced by
Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary
Lab Sample ID(s): S43653.01-S43653.31
Project: 30112891.00005 - Racer PNC
Collected Date(s): 12/19/2022
Submitted Date/Time: 12/19/2022 16:45
Sampled by: Christina Weaver
P.O. #: 30112891.00005

Table of Contents

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

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Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
SM2540B	Standard Method 2540 B 2015
SW5035A	SW 846 Method 5035A Revision 1 July 2002
SW5035A/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5035A Revision 1 July 2002



Analytical Laboratory Report

Sample Summary (31 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S43653.01	JS-SB-31_121922(1-2)	Soil	12/19/22 09:05
S43653.02	JS-SB-31_121922(3-4)	Soil	12/19/22 09:07
S43653.03	JS-SB-31_121922(5-6)	Soil	12/19/22 09:10
S43653.04	JS-SB-31_121922(7-8)	Soil	12/19/22 09:13
S43653.05	JS-SB-31_121922(9-10)	Soil	12/19/22 09:15
S43653.06	JS-SB-31_121922(11-12)	Soil	12/19/22 09:18
S43653.07	JS-SB-31A_121922(12-13)	Soil	12/19/22 11:35
S43653.08	JS-SB-31A_121922(13-14)	Soil	12/19/22 11:30
S43653.09	JS-SB-32_121922(1-2)	Soil	12/19/22 09:57
S43653.10	JS-SB-32_121922(3-4)	Soil	12/19/22 09:58
S43653.11	JS-SB-32_121922(5-6)	Soil	12/19/22 09:59
S43653.12	JS-SB-32_121922(7-8)	Soil	12/19/22 10:00
S43653.13	JS-SB-32_121922(9-10)	Soil	12/19/22 10:03
S43653.14	JS-SB-32_121922(10-11)	Soil	12/19/22 10:05
S43653.15	JS-SB-32_121922(11-12)	Soil	12/19/22 10:10
S43653.16	JS-SB-32_121922(12-13)	Soil	12/19/22 10:13
S43653.17	JS-SB-32_121922(13-14)	Soil	12/19/22 10:15
S43653.18	JS-SB-33_121922(1-2)	Soil	12/19/22 10:48
S43653.19	JS-SB-33_121922(1-2) MS	Soil	12/19/22 10:48
S43653.20	JS-SB-33_121922(1-2) MSD	Soil	12/19/22 10:48
S43653.21	JS-SB-33_121922(3-4)	Soil	12/19/22 10:50
S43653.22	JS-SB-33_121922(5-6)	Soil	12/19/22 10:55
S43653.23	JS-SB-33_121922(7-8)	Soil	12/19/22 10:58
S43653.24	JS-SB-33_121922(9-10)	Soil	12/19/22 11:00
S43653.25	JS-SB-33_121922(10-11)	Soil	12/19/22 11:03
S43653.26	DUP-01_121922	Soil	12/19/22 00:01
S43653.27	JS-SB-33_121922(11-12)	Soil	12/19/22 11:05
S43653.28	JS-SB-33_121922(12-13)	Soil	12/19/22 11:08
S43653.29	DUP-02_121922	Soil	12/19/22 00:01
S43653.30	DUP-03_121922	Soil	12/19/22 00:01
S43653.31	Trip Blank	Methanol	12/19/22 00:01



Analytical Laboratory Report

Lab Sample ID: S43653.01

Sample Tag: JS-SB-31_121922(1-2)

Collected Date/Time: 12/19/2022 09:05

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	10.913/10	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	91	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 16:44, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	55.3	60-29-7	
Acetone	Not detected	1,000		ug/kg	55.3	67-64-1	
Methyl iodide	Not detected	100		ug/kg	55.3	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	55.3	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	55.3	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	55.3	107-13-1	
2-Butanone (MEK)	Not detected	830		ug/kg	55.3	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	55.3	75-71-8	
Chloromethane	Not detected	300		ug/kg	55.3	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	55.3	75-01-4	
Bromomethane	Not detected	200		ug/kg	55.3	74-83-9	
Chloroethane	Not detected	300		ug/kg	55.3	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	55.3	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	55.3	75-35-4	
Methylene chloride	Not detected	100		ug/kg	55.3	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	55.3	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	55.3	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	55.3	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	55.3	109-99-9	
Chloroform	Not detected	60		ug/kg	55.3	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	55.3	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	55.3	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	55.3	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	55.3	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	55.3	56-23-5	
Benzene	Not detected	60		ug/kg	55.3	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	55.3	107-06-2	
Trichloroethene	Not detected	60		ug/kg	55.3	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	55.3	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	55.3	75-27-4	
Dibromomethane	Not detected	300		ug/kg	55.3	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.01 (continued)

Sample Tag: JS-SB-31_121922(1-2)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 16:44, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	55.3	10061-01-5	
Toluene	Not detected	60		ug/kg	55.3	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	55.3	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	55.3	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	55.3	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	55.3	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	55.3	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	55.3	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	55.3	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	55.3	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	55.3	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	55.3		
o-Xylene	Not detected	60		ug/kg	55.3	95-47-6	
Styrene	Not detected	60		ug/kg	55.3	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	55.3	98-82-8	
Bromoform	Not detected	100		ug/kg	55.3	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	55.3	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	55.3	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	55.3	103-65-1	
Bromobenzene	Not detected	100		ug/kg	55.3	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	55.3	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	55.3	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	55.3	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	55.3	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	55.3	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	55.3	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	55.3	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	55.3	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	55.3	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	55.3	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	55.3	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	55.3	96-12-8	
1,2,4-Trichlorobenzene	Not detected	360		ug/kg	55.3	120-82-1	
1,2,3-Trichlorobenzene	Not detected	360		ug/kg	55.3	87-61-6	
Naphthalene	Not detected	300		ug/kg	55.3	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	55.3	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.02

Sample Tag: JS-SB-31_121922(3-4)

Collected Date/Time: 12/19/2022 09:07

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	12.639/12	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 17:08, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	59.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	59.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	59.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	59.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	59.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	59.5	107-13-1	
2-Butanone (MEK)	Not detected	890		ug/kg	59.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	59.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	59.5	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	59.5	75-01-4	
Bromomethane	Not detected	200		ug/kg	59.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	59.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	59.5	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	59.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	59.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	59.5	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	59.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	59.5	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	59.5	109-99-9	
Chloroform	Not detected	60		ug/kg	59.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	59.5	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	59.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	59.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	59.5	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	59.5	56-23-5	
Benzene	Not detected	60		ug/kg	59.5	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	59.5	107-06-2	
Trichloroethene	Not detected	60		ug/kg	59.5	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	59.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	59.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	59.5	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.02 (continued)

Sample Tag: JS-SB-31_121922(3-4)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 17:08, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	59.5	10061-01-5	
Toluene	Not detected	60		ug/kg	59.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	59.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	59.5	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	59.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	59.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	59.5	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	59.5	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	59.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	59.5	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	59.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	59.5		
o-Xylene	Not detected	60		ug/kg	59.5	95-47-6	
Styrene	Not detected	60		ug/kg	59.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	59.5	98-82-8	
Bromoform	Not detected	100		ug/kg	59.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	59.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	59.5	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	59.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	59.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	59.5	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	59.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	59.5	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	59.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	59.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	59.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	59.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	59.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	59.5	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	59.5	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	59.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	59.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	390		ug/kg	59.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	390		ug/kg	59.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	59.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	59.5	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.03

Sample Tag: JS-SB-31_121922(5-6)

Collected Date/Time: 12/19/2022 09:10

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.613/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 17:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.1	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.1	107-13-1	
2-Butanone (MEK)	Not detected	920		ug/kg	61.1	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.1	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.1	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.1	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.1	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.1	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.1	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.1	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	61.1	109-99-9	
Chloroform	Not detected	60		ug/kg	61.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.1	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.1	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.1	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.1	56-23-5	
Benzene	Not detected	60		ug/kg	61.1	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.1	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.1	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.1	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.1	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.03 (continued)

Sample Tag: JS-SB-31_121922(5-6)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 17:32, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.1	10061-01-5	
Toluene	Not detected	60		ug/kg	61.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.1	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.1	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.1	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	61.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.1	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	61.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	61.1		
o-Xylene	Not detected	60		ug/kg	61.1	95-47-6	
Styrene	Not detected	60		ug/kg	61.1	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.1	98-82-8	
Bromoform	Not detected	100		ug/kg	61.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.1	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	61.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	61.1	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	61.1	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	61.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	61.1	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	61.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	61.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	61.1	87-61-6	
Naphthalene	Not detected	300		ug/kg	61.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	61.1	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.04

Sample Tag: JS-SB-31_121922(7-8)

Collected Date/Time: 12/19/2022 09:13

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	12.900/12	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 17:56, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	57.2	60-29-7	
Acetone	Not detected	1,000		ug/kg	57.2	67-64-1	
Methyl iodide	Not detected	100		ug/kg	57.2	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	57.2	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	57.2	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	57.2	107-13-1	
2-Butanone (MEK)	Not detected	860		ug/kg	57.2	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	57.2	75-71-8	
Chloromethane	Not detected	300		ug/kg	57.2	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	57.2	75-01-4	
Bromomethane	Not detected	200		ug/kg	57.2	74-83-9	
Chloroethane	Not detected	300		ug/kg	57.2	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	57.2	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	57.2	75-35-4	
Methylene chloride	Not detected	100		ug/kg	57.2	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	57.2	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	57.2	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	57.2	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	57.2	109-99-9	
Chloroform	Not detected	60		ug/kg	57.2	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	57.2	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	57.2	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	57.2	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	57.2	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	57.2	56-23-5	
Benzene	Not detected	60		ug/kg	57.2	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	57.2	107-06-2	
Trichloroethene	Not detected	60		ug/kg	57.2	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	57.2	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	57.2	75-27-4	
Dibromomethane	Not detected	300		ug/kg	57.2	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.04 (continued)

Sample Tag: JS-SB-31_121922(7-8)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 17:56, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	57.2	10061-01-5	
Toluene	Not detected	60		ug/kg	57.2	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	57.2	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	57.2	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	57.2	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	57.2	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	57.2	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	57.2	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	57.2	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	57.2	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	57.2	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	57.2		
o-Xylene	Not detected	60		ug/kg	57.2	95-47-6	
Styrene	Not detected	60		ug/kg	57.2	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	57.2	98-82-8	
Bromoform	Not detected	100		ug/kg	57.2	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	57.2	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	57.2	96-18-4	
n-Propylbenzene	310	60		ug/kg	57.2	103-65-1	
Bromobenzene	Not detected	100		ug/kg	57.2	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	57.2	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	57.2	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	57.2	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	57.2	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	57.2	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	57.2	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	57.2	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	57.2	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	57.2	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	57.2	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	57.2	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	57.2	96-12-8	
1,2,4-Trichlorobenzene	Not detected	380		ug/kg	57.2	120-82-1	
1,2,3-Trichlorobenzene	Not detected	380		ug/kg	57.2	87-61-6	
Naphthalene	Not detected	300		ug/kg	57.2	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	57.2	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.05

Sample Tag: JS-SB-31_121922(9-10)

Collected Date/Time: 12/19/2022 09:15

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.602/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 18:20, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	58.7	60-29-7	
Acetone	Not detected	1,000		ug/kg	58.7	67-64-1	
Methyl iodide	Not detected	100		ug/kg	58.7	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	58.7	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	58.7	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	58.7	107-13-1	
2-Butanone (MEK)	Not detected	880		ug/kg	58.7	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	58.7	75-71-8	
Chloromethane	Not detected	300		ug/kg	58.7	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	58.7	75-01-4	
Bromomethane	Not detected	200		ug/kg	58.7	74-83-9	
Chloroethane	Not detected	300		ug/kg	58.7	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	58.7	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	58.7	75-35-4	
Methylene chloride	Not detected	100		ug/kg	58.7	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	58.7	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	58.7	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	58.7	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	58.7	109-99-9	
Chloroform	Not detected	60		ug/kg	58.7	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	58.7	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	58.7	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	58.7	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	58.7	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	58.7	56-23-5	
Benzene	280	60		ug/kg	58.7	71-43-2	
1,2-Dichloroethane	480	60		ug/kg	58.7	107-06-2	
Trichloroethene	Not detected	60		ug/kg	58.7	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	58.7	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	58.7	75-27-4	
Dibromomethane	Not detected	300		ug/kg	58.7	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.05 (continued)

Sample Tag: JS-SB-31_121922(9-10)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 18:20, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	58.7	10061-01-5	
Toluene	Not detected	60		ug/kg	58.7	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	58.7	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	58.7	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	58.7	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	58.7	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	58.7	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	58.7	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	58.7	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	58.7	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	58.7	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	58.7		
o-Xylene	Not detected	60		ug/kg	58.7	95-47-6	
Styrene	Not detected	60		ug/kg	58.7	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	58.7	98-82-8	
Bromoform	Not detected	100		ug/kg	58.7	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	58.7	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	58.7	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	58.7	103-65-1	
Bromobenzene	Not detected	100		ug/kg	58.7	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	58.7	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	58.7	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	58.7	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	58.7	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	58.7	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	58.7	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	58.7	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	58.7	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	58.7	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	58.7	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	58.7	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	58.7	96-12-8	
1,2,4-Trichlorobenzene	Not detected	390		ug/kg	58.7	120-82-1	
1,2,3-Trichlorobenzene	Not detected	390		ug/kg	58.7	87-61-6	
Naphthalene	Not detected	300		ug/kg	58.7	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	58.7	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.06

Sample Tag: JS-SB-31_121922(11-12)

Collected Date/Time: 12/19/2022 09:18

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	12.519/12	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 18:44, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	58.8	60-29-7	
Acetone	Not detected	1,000		ug/kg	58.8	67-64-1	
Methyl iodide	Not detected	100		ug/kg	58.8	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	58.8	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	58.8	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	58.8	107-13-1	
2-Butanone (MEK)	Not detected	880		ug/kg	58.8	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	58.8	75-71-8	
Chloromethane	Not detected	300		ug/kg	58.8	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	58.8	75-01-4	
Bromomethane	Not detected	200		ug/kg	58.8	74-83-9	
Chloroethane	Not detected	300		ug/kg	58.8	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	58.8	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	58.8	75-35-4	
Methylene chloride	Not detected	100		ug/kg	58.8	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	58.8	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	58.8	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	58.8	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	58.8	109-99-9	
Chloroform	Not detected	60		ug/kg	58.8	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	58.8	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	58.8	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	58.8	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	58.8	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	58.8	56-23-5	
Benzene	1,000	60		ug/kg	58.8	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	58.8	107-06-2	
Trichloroethene	Not detected	60		ug/kg	58.8	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	58.8	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	58.8	75-27-4	
Dibromomethane	Not detected	300		ug/kg	58.8	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.06 (continued)

Sample Tag: JS-SB-31_121922(11-12)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 18:44, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	58.8	10061-01-5	
Toluene	260	60		ug/kg	58.8	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	58.8	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	58.8	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	58.8	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	58.8	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	58.8	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	58.8	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	58.8	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	58.8	630-20-6	
Ethylbenzene	1,090	60		ug/kg	58.8	100-41-4	
p,m-Xylene	200	100		ug/kg	58.8		
o-Xylene	Not detected	60		ug/kg	58.8	95-47-6	
Styrene	Not detected	60		ug/kg	58.8	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	58.8	98-82-8	
Bromoform	Not detected	100		ug/kg	58.8	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	58.8	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	58.8	96-18-4	
n-Propylbenzene	710	60		ug/kg	58.8	103-65-1	
Bromobenzene	Not detected	100		ug/kg	58.8	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	58.8	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	58.8	98-06-6	
1,2,4-Trimethylbenzene	470	60		ug/kg	58.8	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	58.8	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	58.8	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	58.8	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	58.8	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	58.8	95-50-1	
1,2,3-Trimethylbenzene	870	60		ug/kg	58.8	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	58.8	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	58.8	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	58.8	96-12-8	
1,2,4-Trichlorobenzene	Not detected	390		ug/kg	58.8	120-82-1	
1,2,3-Trichlorobenzene	Not detected	390		ug/kg	58.8	87-61-6	
Naphthalene	Not detected	300		ug/kg	58.8	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	58.8	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.07

Sample Tag: JS-SB-31A_121922(12-13)

Collected Date/Time: 12/19/2022 11:35

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	14.165/14	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 19:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	63	60-29-7	
Acetone	Not detected	1,000		ug/kg	63	67-64-1	
Methyl iodide	Not detected	100		ug/kg	63	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	63	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	63	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	63	107-13-1	
2-Butanone (MEK)	Not detected	950		ug/kg	63	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	63	75-71-8	
Chloromethane	Not detected	300		ug/kg	63	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	63	75-01-4	
Bromomethane	Not detected	300		ug/kg	63	74-83-9	
Chloroethane	Not detected	300		ug/kg	63	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	63	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	63	75-35-4	
Methylene chloride	Not detected	100		ug/kg	63	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	63	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	63	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	63	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	63	109-99-9	
Chloroform	Not detected	60		ug/kg	63	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	63	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	63	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	63	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	63	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	63	56-23-5	
Benzene	210	60		ug/kg	63	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	63	107-06-2	
Trichloroethene	Not detected	60		ug/kg	63	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	63	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	63	75-27-4	
Dibromomethane	Not detected	300		ug/kg	63	74-95-3	

Lab Sample ID: S43653.07 (continued)

Sample Tag: JS-SB-31A_121922(12-13)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 19:09, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	63	10061-01-5	
Toluene	70	60		ug/kg	63	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	63	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	63	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	63	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	63	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	63	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	63	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	63	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	63	630-20-6	
Ethylbenzene	2,180	60		ug/kg	63	100-41-4	
p,m-Xylene	2,300	100		ug/kg	63		
o-Xylene	90	60		ug/kg	63	95-47-6	
Styrene	Not detected	60		ug/kg	63	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	63	98-82-8	
Bromoform	Not detected	100		ug/kg	63	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	63	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	63	96-18-4	
n-Propylbenzene	2,010	60		ug/kg	63	103-65-1	
Bromobenzene	Not detected	100		ug/kg	63	108-86-1	
1,3,5-Trimethylbenzene	3,420	60		ug/kg	63	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	63	98-06-6	
1,2,4-Trimethylbenzene	7,830	60		ug/kg	63	95-63-6	
sec-Butylbenzene	230	60		ug/kg	63	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	63	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	63	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	63	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	63	95-50-1	
1,2,3-Trimethylbenzene	1,670	60		ug/kg	63	526-73-8	
n-Butylbenzene	1,810	60		ug/kg	63	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	63	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	63	96-12-8	
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	63	120-82-1	
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	63	87-61-6	
Naphthalene	900	300		ug/kg	63	91-20-3	
2-Methylnaphthalene	1,100	100		ug/kg	63	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.08

Sample Tag: JS-SB-31A_121922(13-14)

Collected Date/Time: 12/19/2022 11:30

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.569/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 06:29, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.3	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.3	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.3	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.3	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.3	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.3	107-13-1	
2-Butanone (MEK)	Not detected	920		ug/kg	61.3	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.3	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.3	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.3	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.3	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.3	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.3	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.3	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.3	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.3	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.3	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.3	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	61.3	109-99-9	
Chloroform	Not detected	60		ug/kg	61.3	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.3	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.3	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.3	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.3	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.3	56-23-5	
Benzene	150	60		ug/kg	61.3	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.3	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.3	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.3	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.3	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.3	74-95-3	

Lab Sample ID: S43653.08 (continued)

Sample Tag: JS-SB-31A_121922(13-14)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 06:29, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.3	10061-01-5	
Toluene	Not detected	60		ug/kg	61.3	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.3	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.3	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.3	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.3	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.3	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.3	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	61.3	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.3	630-20-6	
Ethylbenzene	240	60		ug/kg	61.3	100-41-4	
p,m-Xylene	300	100		ug/kg	61.3		
o-Xylene	Not detected	60		ug/kg	61.3	95-47-6	
Styrene	Not detected	60		ug/kg	61.3	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.3	98-82-8	
Bromoform	Not detected	100		ug/kg	61.3	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.3	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.3	96-18-4	
n-Propylbenzene	130	60		ug/kg	61.3	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.3	108-86-1	
1,3,5-Trimethylbenzene	120	60		ug/kg	61.3	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.3	98-06-6	
1,2,4-Trimethylbenzene	170	60		ug/kg	61.3	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	61.3	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.3	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.3	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.3	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.3	95-50-1	
1,2,3-Trimethylbenzene	250	60		ug/kg	61.3	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	61.3	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.3	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.3	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	61.3	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	61.3	87-61-6	
Naphthalene	Not detected	300		ug/kg	61.3	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	61.3	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.09

Sample Tag: JS-SB-32_121922(1-2)

Collected Date/Time: 12/19/2022 09:57

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	10.844/10	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	95	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 06:53, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	51.2	60-29-7	
Acetone	Not detected	1,000		ug/kg	51.2	67-64-1	
Methyl iodide	Not detected	100		ug/kg	51.2	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	51.2	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	51.2	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	51.2	107-13-1	
2-Butanone (MEK)	Not detected	770		ug/kg	51.2	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	51.2	75-71-8	
Chloromethane	Not detected	300		ug/kg	51.2	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	51.2	75-01-4	
Bromomethane	Not detected	200		ug/kg	51.2	74-83-9	
Chloroethane	Not detected	300		ug/kg	51.2	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	51.2	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	51.2	75-35-4	
Methylene chloride	Not detected	100		ug/kg	51.2	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	51.2	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	51.2	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	51.2	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	51.2	109-99-9	
Chloroform	Not detected	50		ug/kg	51.2	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	51.2	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	51.2	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	51.2	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	51.2	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	51.2	56-23-5	
Benzene	Not detected	50		ug/kg	51.2	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	51.2	107-06-2	
Trichloroethene	Not detected	50		ug/kg	51.2	79-01-6	
1,2-Dichloropropane	Not detected	50		ug/kg	51.2	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	51.2	75-27-4	
Dibromomethane	Not detected	300		ug/kg	51.2	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.09 (continued)

Sample Tag: JS-SB-32_121922(1-2)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 06:53, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	50		ug/kg	51.2	10061-01-5	
Toluene	Not detected	50		ug/kg	51.2	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	51.2	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	51.2	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	51.2	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	51.2	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	51.2	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	51.2	106-93-4	M
Chlorobenzene	Not detected	50		ug/kg	51.2	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	51.2	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	51.2	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	51.2		
o-Xylene	Not detected	50		ug/kg	51.2	95-47-6	
Styrene	Not detected	50		ug/kg	51.2	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	51.2	98-82-8	
Bromoform	Not detected	100		ug/kg	51.2	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	50		ug/kg	51.2	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	51.2	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	51.2	103-65-1	
Bromobenzene	Not detected	100		ug/kg	51.2	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	51.2	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	51.2	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	51.2	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	51.2	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	51.2	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	51.2	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	51.2	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	51.2	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	51.2	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	51.2	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	51.2	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	51.2	96-12-8	
1,2,4-Trichlorobenzene	Not detected	340		ug/kg	51.2	120-82-1	
1,2,3-Trichlorobenzene	Not detected	340		ug/kg	51.2	87-61-6	
Naphthalene	Not detected	300		ug/kg	51.2	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	51.2	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.10

Sample Tag: JS-SB-32_121922(3-4)

Collected Date/Time: 12/19/2022 09:58

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	9.910/10	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 17:23, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 20:22, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	62.9	60-29-7	
Acetone	Not detected	1,000		ug/kg	62.9	67-64-1	
Methyl iodide	Not detected	100		ug/kg	62.9	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	62.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	62.9	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	62.9	107-13-1	
2-Butanone (MEK)	Not detected	940		ug/kg	62.9	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	62.9	75-71-8	
Chloromethane	Not detected	300		ug/kg	62.9	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	62.9	75-01-4	
Bromomethane	Not detected	300		ug/kg	62.9	74-83-9	
Chloroethane	Not detected	300		ug/kg	62.9	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	62.9	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	62.9	75-35-4	
Methylene chloride	Not detected	100		ug/kg	62.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	62.9	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	62.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	62.9	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	62.9	109-99-9	
Chloroform	Not detected	60		ug/kg	62.9	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	62.9	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	62.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	62.9	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	62.9	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	62.9	56-23-5	
Benzene	Not detected	60		ug/kg	62.9	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	62.9	107-06-2	
Trichloroethene	Not detected	60		ug/kg	62.9	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	62.9	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	62.9	75-27-4	
Dibromomethane	Not detected	300		ug/kg	62.9	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.10 (continued)

Sample Tag: JS-SB-32_121922(3-4)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 20:22, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	62.9	10061-01-5	
Toluene	Not detected	60		ug/kg	62.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	62.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	62.9	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	62.9	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	62.9	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	62.9	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	62.9	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	62.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	62.9	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	62.9	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	62.9		
o-Xylene	Not detected	60		ug/kg	62.9	95-47-6	
Styrene	Not detected	60		ug/kg	62.9	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	62.9	98-82-8	
Bromoform	Not detected	100		ug/kg	62.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	62.9	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	62.9	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	62.9	103-65-1	
Bromobenzene	Not detected	100		ug/kg	62.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	62.9	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	62.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	62.9	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	62.9	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	62.9	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	62.9	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	62.9	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	62.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	62.9	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	62.9	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	62.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	62.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	62.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	62.9	87-61-6	
Naphthalene	Not detected	300		ug/kg	62.9	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	62.9	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.11

Sample Tag: JS-SB-32_121922(5-6)

Collected Date/Time: 12/19/2022 09:59

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	12.520/12	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 20:45, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.3	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.3	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.3	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.3	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.3	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.3	107-13-1	
2-Butanone (MEK)	Not detected	920		ug/kg	61.3	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.3	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.3	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.3	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.3	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.3	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.3	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.3	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.3	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.3	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.3	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.3	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	61.3	109-99-9	
Chloroform	Not detected	60		ug/kg	61.3	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.3	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.3	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.3	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.3	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.3	56-23-5	
Benzene	Not detected	60		ug/kg	61.3	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.3	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.3	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.3	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.3	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.3	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.11 (continued)

Sample Tag: JS-SB-32_121922(5-6)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 20:45, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.3	10061-01-5	
Toluene	Not detected	60		ug/kg	61.3	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.3	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.3	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.3	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.3	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.3	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.3	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	61.3	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.3	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	61.3	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	61.3		
o-Xylene	Not detected	60		ug/kg	61.3	95-47-6	
Styrene	Not detected	60		ug/kg	61.3	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.3	98-82-8	
Bromoform	Not detected	100		ug/kg	61.3	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.3	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.3	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	61.3	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.3	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	61.3	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.3	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	61.3	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	61.3	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.3	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.3	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.3	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.3	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	61.3	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	61.3	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.3	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.3	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	61.3	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	61.3	87-61-6	
Naphthalene	Not detected	300		ug/kg	61.3	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	61.3	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.12

Sample Tag: JS-SB-32_121922(7-8)

Collected Date/Time: 12/19/2022 10:00

Matrix: Soil

COC Reference: 158763

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	11.793/11	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 21:10, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	57.4	60-29-7	
Acetone	Not detected	1,000		ug/kg	57.4	67-64-1	
Methyl iodide	Not detected	100		ug/kg	57.4	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	57.4	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	57.4	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	57.4	107-13-1	
2-Butanone (MEK)	Not detected	860		ug/kg	57.4	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	57.4	75-71-8	
Chloromethane	Not detected	300		ug/kg	57.4	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	57.4	75-01-4	
Bromomethane	Not detected	200		ug/kg	57.4	74-83-9	
Chloroethane	Not detected	300		ug/kg	57.4	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	57.4	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	57.4	75-35-4	
Methylene chloride	Not detected	100		ug/kg	57.4	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	57.4	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	57.4	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	57.4	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	57.4	109-99-9	
Chloroform	Not detected	60		ug/kg	57.4	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	57.4	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	57.4	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	57.4	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	57.4	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	57.4	56-23-5	
Benzene	Not detected	60		ug/kg	57.4	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	57.4	107-06-2	
Trichloroethene	Not detected	60		ug/kg	57.4	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	57.4	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	57.4	75-27-4	
Dibromomethane	Not detected	300		ug/kg	57.4	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.12 (continued)

Sample Tag: JS-SB-32_121922(7-8)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 21:10, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	57.4	10061-01-5	
Toluene	Not detected	60		ug/kg	57.4	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	57.4	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	57.4	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	57.4	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	57.4	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	57.4	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	57.4	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	57.4	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	57.4	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	57.4	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	57.4		
o-Xylene	Not detected	60		ug/kg	57.4	95-47-6	
Styrene	Not detected	60		ug/kg	57.4	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	57.4	98-82-8	
Bromoform	Not detected	100		ug/kg	57.4	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	57.4	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	57.4	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	57.4	103-65-1	
Bromobenzene	Not detected	100		ug/kg	57.4	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	57.4	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	57.4	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	57.4	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	57.4	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	57.4	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	57.4	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	57.4	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	57.4	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	57.4	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	57.4	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	57.4	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	57.4	96-12-8	
1,2,4-Trichlorobenzene	Not detected	380		ug/kg	57.4	120-82-1	
1,2,3-Trichlorobenzene	Not detected	380		ug/kg	57.4	87-61-6	
Naphthalene	Not detected	300		ug/kg	57.4	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	57.4	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.13

Sample Tag: JS-SB-32_121922(9-10)

Collected Date/Time: 12/19/2022 10:03

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	11.223/11	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 21:34, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.2	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.2	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.2	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.2	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.2	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.2	107-13-1	
2-Butanone (MEK)	Not detected	920		ug/kg	61.2	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.2	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.2	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.2	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.2	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.2	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.2	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.2	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.2	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.2	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.2	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.2	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	61.2	109-99-9	
Chloroform	Not detected	60		ug/kg	61.2	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.2	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.2	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.2	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.2	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.2	56-23-5	
Benzene	Not detected	60		ug/kg	61.2	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.2	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.2	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.2	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.2	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.2	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.13 (continued)

Sample Tag: JS-SB-32_121922(9-10)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 21:34, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.2	10061-01-5	
Toluene	Not detected	60		ug/kg	61.2	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.2	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.2	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.2	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.2	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.2	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.2	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	61.2	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.2	630-20-6	
Ethylbenzene	610	60		ug/kg	61.2	100-41-4	
p,m-Xylene	1,500	100		ug/kg	61.2		
o-Xylene	Not detected	60		ug/kg	61.2	95-47-6	
Styrene	Not detected	60		ug/kg	61.2	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.2	98-82-8	
Bromoform	Not detected	100		ug/kg	61.2	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.2	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.2	96-18-4	
n-Propylbenzene	1,220	60		ug/kg	61.2	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.2	108-86-1	
1,3,5-Trimethylbenzene	350	60		ug/kg	61.2	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.2	98-06-6	
1,2,4-Trimethylbenzene	3,280	60		ug/kg	61.2	95-63-6	
sec-Butylbenzene	90	60		ug/kg	61.2	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.2	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.2	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.2	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.2	95-50-1	
1,2,3-Trimethylbenzene	910	60		ug/kg	61.2	526-73-8	
n-Butylbenzene	360	60		ug/kg	61.2	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.2	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.2	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	61.2	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	61.2	87-61-6	
Naphthalene	800	300		ug/kg	61.2	91-20-3	
2-Methylnaphthalene	600	100		ug/kg	61.2	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.14

Sample Tag: JS-SB-32_121922(10-11)

Collected Date/Time: 12/19/2022 10:05

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.732/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 21:58, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	60.6	60-29-7	
Acetone	Not detected	1,000		ug/kg	60.6	67-64-1	
Methyl iodide	Not detected	100		ug/kg	60.6	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	60.6	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	60.6	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	60.6	107-13-1	
2-Butanone (MEK)	Not detected	910		ug/kg	60.6	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	60.6	75-71-8	
Chloromethane	Not detected	300		ug/kg	60.6	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	60.6	75-01-4	
Bromomethane	Not detected	200		ug/kg	60.6	74-83-9	
Chloroethane	Not detected	300		ug/kg	60.6	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	60.6	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	60.6	75-35-4	
Methylene chloride	Not detected	100		ug/kg	60.6	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	60.6	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	60.6	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	60.6	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	60.6	109-99-9	
Chloroform	Not detected	60		ug/kg	60.6	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	60.6	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	60.6	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	60.6	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	60.6	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	60.6	56-23-5	
Benzene	Not detected	60		ug/kg	60.6	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	60.6	107-06-2	
Trichloroethene	Not detected	60		ug/kg	60.6	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	60.6	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	60.6	75-27-4	
Dibromomethane	Not detected	300		ug/kg	60.6	74-95-3	

Lab Sample ID: S43653.14 (continued)

Sample Tag: JS-SB-32_121922(10-11)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/28/22 21:58, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	60.6	10061-01-5	
Toluene	Not detected	60		ug/kg	60.6	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	60.6	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	60.6	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	60.6	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	60.6	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	60.6	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	60.6	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	60.6	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	60.6	630-20-6	
Ethylbenzene	3,150	60		ug/kg	60.6	100-41-4	
p,m-Xylene	6,200	100		ug/kg	60.6		
o-Xylene	90	60		ug/kg	60.6	95-47-6	
Styrene	Not detected	60		ug/kg	60.6	100-42-5	
Isopropylbenzene	900	300		ug/kg	60.6	98-82-8	
Bromoform	Not detected	100		ug/kg	60.6	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	60.6	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	60.6	96-18-4	
n-Propylbenzene	5,860	60		ug/kg	60.6	103-65-1	
Bromobenzene	Not detected	100		ug/kg	60.6	108-86-1	
1,3,5-Trimethylbenzene	1,270	60		ug/kg	60.6	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	60.6	98-06-6	
1,2,4-Trimethylbenzene	25,260	60		ug/kg	60.6	95-63-6	
sec-Butylbenzene	660	60		ug/kg	60.6	135-98-8	
p-Isopropyltoluene	200	100		ug/kg	60.6	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	60.6	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	60.6	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	60.6	95-50-1	
1,2,3-Trimethylbenzene	7,270	60		ug/kg	60.6	526-73-8	
n-Butylbenzene	3,390	60		ug/kg	60.6	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	60.6	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	60.6	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	60.6	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	60.6	87-61-6	
Naphthalene	3,200	300		ug/kg	60.6	91-20-3	
2-Methylnaphthalene	3,400	100		ug/kg	60.6	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.15

Sample Tag: JS-SB-32_121922(11-12)

Collected Date/Time: 12/19/2022 10:10

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	10.288/10	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 08:55, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	2,000		ug/kg	608	60-29-7	Y
Acetone	Not detected	10,000		ug/kg	608	67-64-1	Y
Methyl iodide	Not detected	1,000		ug/kg	608	74-88-4	Y
Carbon disulfide	Not detected	3,000		ug/kg	608	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	2,000		ug/kg	608	1634-04-4	Y
Acrylonitrile	Not detected	1,000		ug/kg	608	107-13-1	Y
2-Butanone (MEK)	Not detected	9,100		ug/kg	608	78-93-3	Y
Dichlorodifluoromethane	Not detected	3,000		ug/kg	608	75-71-8	Y
Chloromethane	Not detected	3,000		ug/kg	608	74-87-3	Y
Vinyl chloride	Not detected	600		ug/kg	608	75-01-4	Y
Bromomethane	Not detected	2,000		ug/kg	608	74-83-9	Y
Chloroethane	Not detected	3,000		ug/kg	608	75-00-3	Y
Trichlorofluoromethane	Not detected	1,000		ug/kg	608	75-69-4	Y
1,1-Dichloroethene	Not detected	600		ug/kg	608	75-35-4	Y
Methylene chloride	Not detected	1,000		ug/kg	608	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	600		ug/kg	608	156-60-5	Y
1,1-Dichloroethane	Not detected	600		ug/kg	608	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	600		ug/kg	608	156-59-2	Y
Tetrahydrofuran*	Not detected	10,000		ug/kg	608	109-99-9	Y
Chloroform	Not detected	600		ug/kg	608	67-66-3	Y
Bromochloromethane	Not detected	1,000		ug/kg	608	74-97-5	Y
1,1,1-Trichloroethane	Not detected	600		ug/kg	608	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	30,000		ug/kg	608	108-10-1	Y
2-Hexanone	Not detected	30,000		ug/kg	608	591-78-6	Y
Carbon tetrachloride	Not detected	600		ug/kg	608	56-23-5	Y
Benzene	Not detected	600		ug/kg	608	71-43-2	Y
1,2-Dichloroethane	Not detected	600		ug/kg	608	107-06-2	Y
Trichloroethene	Not detected	600		ug/kg	608	79-01-6	Y
1,2-Dichloropropane	Not detected	600		ug/kg	608	78-87-5	Y
Bromodichloromethane	Not detected	1,000		ug/kg	608	75-27-4	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S43653.15 (continued)

Sample Tag: JS-SB-32_121922(11-12)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 08:55, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromomethane	Not detected	3,000		ug/kg	608	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	600		ug/kg	608	10061-01-5	Y
Toluene	Not detected	600		ug/kg	608	108-88-3	Y
trans-1,3-Dichloropropene	Not detected	600		ug/kg	608	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	600		ug/kg	608	79-00-5	Y
Tetrachloroethene	Not detected	600		ug/kg	608	127-18-4	Y
trans-1,4-Dichloro-2-butene	Not detected	600		ug/kg	608	110-57-6	Y
Dibromochloromethane	Not detected	1,000		ug/kg	608	124-48-1	Y
1,2-Dibromoethane	Not detected	200		ug/kg	608	106-93-4	YM
Chlorobenzene	Not detected	600		ug/kg	608	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	1,000		ug/kg	608	630-20-6	Y
Ethylbenzene	19,500	600		ug/kg	608	100-41-4	Y
p,m-Xylene	34,000	1,000		ug/kg	608		Y
o-Xylene	Not detected	600		ug/kg	608	95-47-6	Y
Styrene	Not detected	600		ug/kg	608	100-42-5	Y
Isopropylbenzene	4,000	3,000		ug/kg	608	98-82-8	Y
Bromoform	Not detected	1,000		ug/kg	608	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	600		ug/kg	608	79-34-5	Y
1,2,3-Trichloropropane	Not detected	1,000		ug/kg	608	96-18-4	Y
n-Propylbenzene	25,300	600		ug/kg	608	103-65-1	Y
Bromobenzene	Not detected	1,000		ug/kg	608	108-86-1	Y
1,3,5-Trimethylbenzene	24,100	600		ug/kg	608	108-67-8	Y
tert-Butylbenzene	Not detected	600		ug/kg	608	98-06-6	Y
1,2,4-Trimethylbenzene	124,100	600		ug/kg	608	95-63-6	Y
sec-Butylbenzene	3,500	600		ug/kg	608	135-98-8	Y
p-Isopropyltoluene	Not detected	1,000		ug/kg	608	99-87-6	Y
1,3-Dichlorobenzene	Not detected	1,000		ug/kg	608	541-73-1	Y
1,4-Dichlorobenzene	Not detected	1,000		ug/kg	608	106-46-7	Y
1,2-Dichlorobenzene	Not detected	1,000		ug/kg	608	95-50-1	Y
1,2,3-Trimethylbenzene	31,300	600		ug/kg	608	526-73-8	Y
n-Butylbenzene	20,200	600		ug/kg	608	104-51-8	Y
Hexachloroethane	Not detected	4,000		ug/kg	608	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	3,000		ug/kg	608	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	4,000		ug/kg	608	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	4,000		ug/kg	608	87-61-6	Y
Naphthalene	9,000	3,000		ug/kg	608	91-20-3	Y
2-Methylnaphthalene	18,000	1,000		ug/kg	608	91-57-6	Y

Y-Elevated reporting limit due to high target concentration

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.16

Sample Tag: JS-SB-32_121922(12-13)

Collected Date/Time: 12/19/2022 10:13

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.763/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 09:19, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	2,000		ug/kg	592	60-29-7	Y
Acetone	Not detected	10,000		ug/kg	592	67-64-1	Y
Methyl iodide	Not detected	1,000		ug/kg	592	74-88-4	Y
Carbon disulfide	Not detected	3,000		ug/kg	592	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	2,000		ug/kg	592	1634-04-4	Y
Acrylonitrile	Not detected	1,000		ug/kg	592	107-13-1	Y
2-Butanone (MEK)	Not detected	8,900		ug/kg	592	78-93-3	Y
Dichlorodifluoromethane	Not detected	3,000		ug/kg	592	75-71-8	Y
Chloromethane	Not detected	3,000		ug/kg	592	74-87-3	Y
Vinyl chloride	Not detected	600		ug/kg	592	75-01-4	Y
Bromomethane	Not detected	2,000		ug/kg	592	74-83-9	Y
Chloroethane	Not detected	3,000		ug/kg	592	75-00-3	Y
Trichlorofluoromethane	Not detected	1,000		ug/kg	592	75-69-4	Y
1,1-Dichloroethene	Not detected	600		ug/kg	592	75-35-4	Y
Methylene chloride	Not detected	1,000		ug/kg	592	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	600		ug/kg	592	156-60-5	Y
1,1-Dichloroethane	Not detected	600		ug/kg	592	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	600		ug/kg	592	156-59-2	Y
Tetrahydrofuran*	Not detected	10,000		ug/kg	592	109-99-9	Y
Chloroform	Not detected	600		ug/kg	592	67-66-3	Y
Bromochloromethane	Not detected	1,000		ug/kg	592	74-97-5	Y
1,1,1-Trichloroethane	Not detected	600		ug/kg	592	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	30,000		ug/kg	592	108-10-1	Y
2-Hexanone	Not detected	30,000		ug/kg	592	591-78-6	Y
Carbon tetrachloride	Not detected	600		ug/kg	592	56-23-5	Y
Benzene	Not detected	600		ug/kg	592	71-43-2	Y
1,2-Dichloroethane	Not detected	600		ug/kg	592	107-06-2	Y
Trichloroethene	Not detected	600		ug/kg	592	79-01-6	Y
1,2-Dichloropropane	Not detected	600		ug/kg	592	78-87-5	Y
Bromodichloromethane	Not detected	1,000		ug/kg	592	75-27-4	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S43653.16 (continued)

Sample Tag: JS-SB-32_121922(12-13)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 09:19, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromomethane	Not detected	3,000		ug/kg	592	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	600		ug/kg	592	10061-01-5	Y
Toluene	Not detected	600		ug/kg	592	108-88-3	Y
trans-1,3-Dichloropropene	Not detected	600		ug/kg	592	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	600		ug/kg	592	79-00-5	Y
Tetrachloroethene	Not detected	600		ug/kg	592	127-18-4	Y
trans-1,4-Dichloro-2-butene	Not detected	600		ug/kg	592	110-57-6	Y
Dibromochloromethane	Not detected	1,000		ug/kg	592	124-48-1	Y
1,2-Dibromoethane	Not detected	200		ug/kg	592	106-93-4	YM
Chlorobenzene	Not detected	600		ug/kg	592	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	1,000		ug/kg	592	630-20-6	Y
Ethylbenzene	19,100	600		ug/kg	592	100-41-4	Y
p,m-Xylene	24,000	1,000		ug/kg	592		Y
o-Xylene	Not detected	600		ug/kg	592	95-47-6	Y
Styrene	Not detected	600		ug/kg	592	100-42-5	Y
Isopropylbenzene	3,000	3,000		ug/kg	592	98-82-8	Y
Bromoform	Not detected	1,000		ug/kg	592	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	600		ug/kg	592	79-34-5	Y
1,2,3-Trichloropropane	Not detected	1,000		ug/kg	592	96-18-4	Y
n-Propylbenzene	17,400	600		ug/kg	592	103-65-1	Y
Bromobenzene	Not detected	1,000		ug/kg	592	108-86-1	Y
1,3,5-Trimethylbenzene	8,300	600		ug/kg	592	108-67-8	Y
tert-Butylbenzene	Not detected	600		ug/kg	592	98-06-6	Y
1,2,4-Trimethylbenzene	79,200	600		ug/kg	592	95-63-6	Y
sec-Butylbenzene	1,700	600		ug/kg	592	135-98-8	Y
p-Isopropyltoluene	Not detected	1,000		ug/kg	592	99-87-6	Y
1,3-Dichlorobenzene	Not detected	1,000		ug/kg	592	541-73-1	Y
1,4-Dichlorobenzene	Not detected	1,000		ug/kg	592	106-46-7	Y
1,2-Dichlorobenzene	Not detected	1,000		ug/kg	592	95-50-1	Y
1,2,3-Trimethylbenzene	21,300	600		ug/kg	592	526-73-8	Y
n-Butylbenzene	8,900	600		ug/kg	592	104-51-8	Y
Hexachloroethane	Not detected	4,000		ug/kg	592	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	3,000		ug/kg	592	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	3,900		ug/kg	592	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	3,900		ug/kg	592	87-61-6	Y
Naphthalene	8,000	3,000		ug/kg	592	91-20-3	Y
2-Methylnaphthalene	9,000	1,000		ug/kg	592	91-57-6	Y

Y-Elevated reporting limit due to high target concentration

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.17

Sample Tag: JS-SB-32_121922(13-14)

Collected Date/Time: 12/19/2022 10:15

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	15.437/15	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 09:43, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	2,000		ug/kg	620	60-29-7	Y
Acetone	Not detected	10,000		ug/kg	620	67-64-1	Y
Methyl iodide	Not detected	1,000		ug/kg	620	74-88-4	Y
Carbon disulfide	Not detected	3,000		ug/kg	620	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	2,000		ug/kg	620	1634-04-4	Y
Acrylonitrile	Not detected	1,000		ug/kg	620	107-13-1	Y
2-Butanone (MEK)	Not detected	9,300		ug/kg	620	78-93-3	Y
Dichlorodifluoromethane	Not detected	3,000		ug/kg	620	75-71-8	Y
Chloromethane	Not detected	3,000		ug/kg	620	74-87-3	Y
Vinyl chloride	Not detected	600		ug/kg	620	75-01-4	Y
Bromomethane	Not detected	2,000		ug/kg	620	74-83-9	Y
Chloroethane	Not detected	3,000		ug/kg	620	75-00-3	Y
Trichlorofluoromethane	Not detected	1,000		ug/kg	620	75-69-4	Y
1,1-Dichloroethene	Not detected	600		ug/kg	620	75-35-4	Y
Methylene chloride	Not detected	1,000		ug/kg	620	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	600		ug/kg	620	156-60-5	Y
1,1-Dichloroethane	Not detected	600		ug/kg	620	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	600		ug/kg	620	156-59-2	Y
Tetrahydrofuran*	Not detected	10,000		ug/kg	620	109-99-9	Y
Chloroform	Not detected	600		ug/kg	620	67-66-3	Y
Bromochloromethane	Not detected	1,000		ug/kg	620	74-97-5	Y
1,1,1-Trichloroethane	Not detected	600		ug/kg	620	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	30,000		ug/kg	620	108-10-1	Y
2-Hexanone	Not detected	30,000		ug/kg	620	591-78-6	Y
Carbon tetrachloride	Not detected	600		ug/kg	620	56-23-5	Y
Benzene	Not detected	600		ug/kg	620	71-43-2	Y
1,2-Dichloroethane	Not detected	600		ug/kg	620	107-06-2	Y
Trichloroethene	Not detected	600		ug/kg	620	79-01-6	Y
1,2-Dichloropropane	Not detected	600		ug/kg	620	78-87-5	Y
Bromodichloromethane	Not detected	1,000		ug/kg	620	75-27-4	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S43653.17 (continued)

Sample Tag: JS-SB-32_121922(13-14)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 09:43, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromomethane	Not detected	3,000		ug/kg	620	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	600		ug/kg	620	10061-01-5	Y
Toluene	Not detected	600		ug/kg	620	108-88-3	Y
trans-1,3-Dichloropropene	Not detected	600		ug/kg	620	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	600		ug/kg	620	79-00-5	Y
Tetrachloroethene	Not detected	600		ug/kg	620	127-18-4	Y
trans-1,4-Dichloro-2-butene	Not detected	600		ug/kg	620	110-57-6	Y
Dibromochloromethane	Not detected	1,000		ug/kg	620	124-48-1	Y
1,2-Dibromoethane	Not detected	200		ug/kg	620	106-93-4	YM
Chlorobenzene	Not detected	600		ug/kg	620	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	1,000		ug/kg	620	630-20-6	Y
Ethylbenzene	6,300	600		ug/kg	620	100-41-4	Y
p,m-Xylene	9,000	1,000		ug/kg	620		Y
o-Xylene	Not detected	600		ug/kg	620	95-47-6	Y
Styrene	Not detected	600		ug/kg	620	100-42-5	Y
Isopropylbenzene	Not detected	3,000		ug/kg	620	98-82-8	Y
Bromoform	Not detected	1,000		ug/kg	620	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	600		ug/kg	620	79-34-5	Y
1,2,3-Trichloropropane	Not detected	1,000		ug/kg	620	96-18-4	Y
n-Propylbenzene	2,600	600		ug/kg	620	103-65-1	Y
Bromobenzene	Not detected	1,000		ug/kg	620	108-86-1	Y
1,3,5-Trimethylbenzene	Not detected	600		ug/kg	620	108-67-8	Y
tert-Butylbenzene	Not detected	600		ug/kg	620	98-06-6	Y
1,2,4-Trimethylbenzene	13,600	600		ug/kg	620	95-63-6	Y
sec-Butylbenzene	Not detected	600		ug/kg	620	135-98-8	Y
p-Isopropyltoluene	Not detected	1,000		ug/kg	620	99-87-6	Y
1,3-Dichlorobenzene	Not detected	1,000		ug/kg	620	541-73-1	Y
1,4-Dichlorobenzene	Not detected	1,000		ug/kg	620	106-46-7	Y
1,2-Dichlorobenzene	Not detected	1,000		ug/kg	620	95-50-1	Y
1,2,3-Trimethylbenzene	4,000	600		ug/kg	620	526-73-8	Y
n-Butylbenzene	800	600		ug/kg	620	104-51-8	Y
Hexachloroethane	Not detected	4,000		ug/kg	620	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	3,000		ug/kg	620	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	4,100		ug/kg	620	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	4,100		ug/kg	620	87-61-6	Y
Naphthalene	4,000	3,000		ug/kg	620	91-20-3	Y
2-Methylnaphthalene	2,000	1,000		ug/kg	620	91-57-6	Y

Y-Elevated reporting limit due to high target concentration

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.18

Sample Tag: JS-SB-33_121922(1-2)

Collected Date/Time: 12/19/2022 10:48

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.678/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	91	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 06:05, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	57.2	60-29-7	
Acetone	Not detected	1,000		ug/kg	57.2	67-64-1	
Methyl iodide	Not detected	100		ug/kg	57.2	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	57.2	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	57.2	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	57.2	107-13-1	
2-Butanone (MEK)	Not detected	860		ug/kg	57.2	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	57.2	75-71-8	
Chloromethane	Not detected	300		ug/kg	57.2	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	57.2	75-01-4	
Bromomethane	Not detected	200		ug/kg	57.2	74-83-9	
Chloroethane	Not detected	300		ug/kg	57.2	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	57.2	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	57.2	75-35-4	
Methylene chloride	Not detected	100		ug/kg	57.2	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	57.2	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	57.2	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	57.2	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	57.2	109-99-9	
Chloroform	Not detected	60		ug/kg	57.2	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	57.2	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	57.2	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	57.2	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	57.2	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	57.2	56-23-5	
Benzene	Not detected	60		ug/kg	57.2	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	57.2	107-06-2	
Trichloroethene	Not detected	60		ug/kg	57.2	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	57.2	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	57.2	75-27-4	
Dibromomethane	Not detected	300		ug/kg	57.2	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.18 (continued)

Sample Tag: JS-SB-33_121922(1-2)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 06:05, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	57.2	10061-01-5	
Toluene	Not detected	60		ug/kg	57.2	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	57.2	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	57.2	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	57.2	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	57.2	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	57.2	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	57.2	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	57.2	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	57.2	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	57.2	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	57.2		
o-Xylene	Not detected	60		ug/kg	57.2	95-47-6	
Styrene	Not detected	60		ug/kg	57.2	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	57.2	98-82-8	
Bromoform	Not detected	100		ug/kg	57.2	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	57.2	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	57.2	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	57.2	103-65-1	
Bromobenzene	Not detected	100		ug/kg	57.2	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	57.2	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	57.2	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	57.2	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	57.2	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	57.2	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	57.2	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	57.2	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	57.2	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	57.2	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	57.2	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	57.2	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	57.2	96-12-8	
1,2,4-Trichlorobenzene	Not detected	380		ug/kg	57.2	120-82-1	
1,2,3-Trichlorobenzene	Not detected	380		ug/kg	57.2	87-61-6	
Naphthalene	Not detected	300		ug/kg	57.2	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	57.2	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.19

Sample Tag: JS-SB-33_121922(1-2) MS

Collected Date/Time: 12/19/2022 10:48

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	11.864/11	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	91	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 03:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	2,500	200		ug/kg	55.9	60-29-7	1
Acetone	4,000	1,000		ug/kg	55.9	67-64-1	1
Methyl iodide	2,600	100		ug/kg	55.9	74-88-4	1
Carbon disulfide	2,800	300		ug/kg	55.9	75-15-0	1
tert-Methyl butyl ether (MTBE)	3,100	200		ug/kg	55.9	1634-04-4	1
Acrylonitrile	3,500	100		ug/kg	55.9	107-13-1	1
2-Butanone (MEK)	3,540	840		ug/kg	55.9	78-93-3	1
Dichlorodifluoromethane	3,100	300		ug/kg	55.9	75-71-8	1
Chloromethane	2,800	300		ug/kg	55.9	74-87-3	1
Vinyl chloride	2,860	60		ug/kg	55.9	75-01-4	1
Bromomethane	2,000	200		ug/kg	55.9	74-83-9	1
Chloroethane	2,100	300		ug/kg	55.9	75-00-3	1
Trichlorofluoromethane	2,500	100		ug/kg	55.9	75-69-4	1
1,1-Dichloroethene	3,030	60		ug/kg	55.9	75-35-4	1
Methylene chloride	2,800	100		ug/kg	55.9	75-09-2	1
trans-1,2-Dichloroethene	2,990	60		ug/kg	55.9	156-60-5	1
1,1-Dichloroethane	2,920	60		ug/kg	55.9	75-34-3	1
cis-1,2-Dichloroethene	2,760	60		ug/kg	55.9	156-59-2	1
Tetrahydrofuran*	4,000	1,000		ug/kg	55.9	109-99-9	1
Chloroform	2,850	60		ug/kg	55.9	67-66-3	1
Bromochloromethane	2,700	100		ug/kg	55.9	74-97-5	1
1,1,1-Trichloroethane	2,880	60		ug/kg	55.9	71-55-6	1
4-Methyl-2-pentanone (MIBK)	3,000	3,000		ug/kg	55.9	108-10-1	1
2-Hexanone	3,000	3,000		ug/kg	55.9	591-78-6	1
Carbon tetrachloride	2,790	60		ug/kg	55.9	56-23-5	1
Benzene	2,740	60		ug/kg	55.9	71-43-2	1
1,2-Dichloroethane	2,840	60		ug/kg	55.9	107-06-2	1
Trichloroethene	2,720	60		ug/kg	55.9	79-01-6	1
1,2-Dichloropropane	2,830	60		ug/kg	55.9	78-87-5	1
Bromodichloromethane	2,700	100		ug/kg	55.9	75-27-4	1

1-Spiked at 2.80mg/kg



Analytical Laboratory Report

Lab Sample ID: S43653.19 (continued)

Sample Tag: JS-SB-33_121922(1-2) MS

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 03:40, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromomethane	2,600	300		ug/kg	55.9	74-95-3	1
cis-1,3-Dichloropropene	2,740	60		ug/kg	55.9	10061-01-5	1
Toluene	2,640	60		ug/kg	55.9	108-88-3	1
trans-1,3-Dichloropropene	2,800	60		ug/kg	55.9	10061-02-6	1
1,1,2-Trichloroethane	2,870	60		ug/kg	55.9	79-00-5	1
Tetrachloroethene	2,530	60		ug/kg	55.9	127-18-4	1
trans-1,4-Dichloro-2-butene	2,740	60		ug/kg	55.9	110-57-6	1
Dibromochloromethane	2,500	100		ug/kg	55.9	124-48-1	1
1,2-Dibromoethane	2,650	20		ug/kg	55.9	106-93-4	1
Chlorobenzene	2,390	60		ug/kg	55.9	108-90-7	1
1,1,1,2-Tetrachloroethane	2,400	100		ug/kg	55.9	630-20-6	1
Ethylbenzene	2,510	60		ug/kg	55.9	100-41-4	1
p,m-Xylene	4,800	100		ug/kg	55.9		1
o-Xylene	2,440	60		ug/kg	55.9	95-47-6	1
Styrene	2,390	60		ug/kg	55.9	100-42-5	1
Isopropylbenzene	2,500	300		ug/kg	55.9	98-82-8	1
Bromoform	2,500	100		ug/kg	55.9	75-25-2	1
1,1,2,2-Tetrachloroethane	2,740	60		ug/kg	55.9	79-34-5	1
1,2,3-Trichloropropane	2,700	100		ug/kg	55.9	96-18-4	1
n-Propylbenzene	2,510	60		ug/kg	55.9	103-65-1	1
Bromobenzene	2,300	100		ug/kg	55.9	108-86-1	1
1,3,5-Trimethylbenzene	2,360	60		ug/kg	55.9	108-67-8	1
tert-Butylbenzene	2,510	60		ug/kg	55.9	98-06-6	1
1,2,4-Trimethylbenzene	2,380	60		ug/kg	55.9	95-63-6	1
sec-Butylbenzene	2,690	60		ug/kg	55.9	135-98-8	1
p-Isopropyltoluene	2,600	100		ug/kg	55.9	99-87-6	1
1,3-Dichlorobenzene	2,400	100		ug/kg	55.9	541-73-1	1
1,4-Dichlorobenzene	2,400	100		ug/kg	55.9	106-46-7	1
1,2-Dichlorobenzene	2,500	100		ug/kg	55.9	95-50-1	1
1,2,3-Trimethylbenzene	2,660	60		ug/kg	55.9	526-73-8	1
n-Butylbenzene	2,660	60		ug/kg	55.9	104-51-8	1
Hexachloroethane	2,600	300		ug/kg	55.9	67-72-1	1
1,2-Dibromo-3-chloropropane	3,000	300		ug/kg	55.9	96-12-8	1
1,2,4-Trichlorobenzene	2,380	370		ug/kg	55.9	120-82-1	1
1,2,3-Trichlorobenzene	2,510	370		ug/kg	55.9	87-61-6	1
Naphthalene	2,900	300		ug/kg	55.9	91-20-3	1
2-Methylnaphthalene	3,000	100		ug/kg	55.9	91-57-6	1

1-Spiked at 2.80mg/kg



Analytical Laboratory Report

Lab Sample ID: S43653.20

Sample Tag: JS-SB-33_121922(1-2) MSD

Collected Date/Time: 12/19/2022 10:48

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	10.818/10	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 04:04, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	2,600	200		ug/kg	56.9	60-29-7	1
Acetone	4,000	1,000		ug/kg	56.9	67-64-1	1
Methyl iodide	2,800	100		ug/kg	56.9	74-88-4	1
Carbon disulfide	3,000	300		ug/kg	56.9	75-15-0	1
tert-Methyl butyl ether (MTBE)	3,100	200		ug/kg	56.9	1634-04-4	1
Acrylonitrile	3,700	100		ug/kg	56.9	107-13-1	1
2-Butanone (MEK)	3,760	850		ug/kg	56.9	78-93-3	1
Dichlorodifluoromethane	3,700	300		ug/kg	56.9	75-71-8	1
Chloromethane	3,200	300		ug/kg	56.9	74-87-3	1
Vinyl chloride	3,250	60		ug/kg	56.9	75-01-4	1
Bromomethane	2,100	200		ug/kg	56.9	74-83-9	1
Chloroethane	2,300	300		ug/kg	56.9	75-00-3	1
Trichlorofluoromethane	2,700	100		ug/kg	56.9	75-69-4	1
1,1-Dichloroethene	3,330	60		ug/kg	56.9	75-35-4	1
Methylene chloride	2,900	100		ug/kg	56.9	75-09-2	1
trans-1,2-Dichloroethene	3,200	60		ug/kg	56.9	156-60-5	1
1,1-Dichloroethane	3,100	60		ug/kg	56.9	75-34-3	1
cis-1,2-Dichloroethene	2,870	60		ug/kg	56.9	156-59-2	1
Tetrahydrofuran*	4,000	1,000		ug/kg	56.9	109-99-9	1
Chloroform	2,970	60		ug/kg	56.9	67-66-3	1
Bromochloromethane	2,800	100		ug/kg	56.9	74-97-5	1
1,1,1-Trichloroethane	3,050	60		ug/kg	56.9	71-55-6	1
4-Methyl-2-pentanone (MIBK)	4,000	3,000		ug/kg	56.9	108-10-1	1
2-Hexanone	4,000	3,000		ug/kg	56.9	591-78-6	1
Carbon tetrachloride	3,010	60		ug/kg	56.9	56-23-5	1
Benzene	2,890	60		ug/kg	56.9	71-43-2	1
1,2-Dichloroethane	2,920	60		ug/kg	56.9	107-06-2	1
Trichloroethene	2,880	60		ug/kg	56.9	79-01-6	1
1,2-Dichloropropane	2,930	60		ug/kg	56.9	78-87-5	1
Bromodichloromethane	2,900	100		ug/kg	56.9	75-27-4	1

1-Spiked at 2.84mg/kg



Analytical Laboratory Report

Lab Sample ID: S43653.20 (continued)

Sample Tag: JS-SB-33_121922(1-2) MSD

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 04:04, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromomethane	2,700	300		ug/kg	56.9	74-95-3	1
cis-1,3-Dichloropropene	2,850	60		ug/kg	56.9	10061-01-5	1
Toluene	2,760	60		ug/kg	56.9	108-88-3	1
trans-1,3-Dichloropropene	2,870	60		ug/kg	56.9	10061-02-6	1
1,1,2-Trichloroethane	2,930	60		ug/kg	56.9	79-00-5	1
Tetrachloroethene	2,690	60		ug/kg	56.9	127-18-4	1
trans-1,4-Dichloro-2-butene	2,810	60		ug/kg	56.9	110-57-6	1
Dibromochloromethane	2,600	100		ug/kg	56.9	124-48-1	1
1,2-Dibromoethane	2,750	20		ug/kg	56.9	106-93-4	1
Chlorobenzene	2,450	60		ug/kg	56.9	108-90-7	1
1,1,1,2-Tetrachloroethane	2,500	100		ug/kg	56.9	630-20-6	1
Ethylbenzene	2,610	60		ug/kg	56.9	100-41-4	1
p,m-Xylene	5,000	100		ug/kg	56.9		1
o-Xylene	2,530	60		ug/kg	56.9	95-47-6	1
Styrene	2,450	60		ug/kg	56.9	100-42-5	1
Isopropylbenzene	2,600	300		ug/kg	56.9	98-82-8	1
Bromoform	2,600	100		ug/kg	56.9	75-25-2	1
1,1,2,2-Tetrachloroethane	2,830	60		ug/kg	56.9	79-34-5	1
1,2,3-Trichloropropane	2,800	100		ug/kg	56.9	96-18-4	1
n-Propylbenzene	2,600	60		ug/kg	56.9	103-65-1	1
Bromobenzene	2,300	100		ug/kg	56.9	108-86-1	1
1,3,5-Trimethylbenzene	2,420	60		ug/kg	56.9	108-67-8	1
tert-Butylbenzene	2,650	60		ug/kg	56.9	98-06-6	1
1,2,4-Trimethylbenzene	2,410	60		ug/kg	56.9	95-63-6	1
sec-Butylbenzene	2,860	60		ug/kg	56.9	135-98-8	1
p-Isopropyltoluene	2,700	100		ug/kg	56.9	99-87-6	1
1,3-Dichlorobenzene	2,500	100		ug/kg	56.9	541-73-1	1
1,4-Dichlorobenzene	2,400	100		ug/kg	56.9	106-46-7	1
1,2-Dichlorobenzene	2,500	100		ug/kg	56.9	95-50-1	1
1,2,3-Trimethylbenzene	2,690	60		ug/kg	56.9	526-73-8	1
n-Butylbenzene	2,740	60		ug/kg	56.9	104-51-8	1
Hexachloroethane	2,800	300		ug/kg	56.9	67-72-1	1
1,2-Dibromo-3-chloropropane	3,100	300		ug/kg	56.9	96-12-8	1
1,2,4-Trichlorobenzene	2,310	380		ug/kg	56.9	120-82-1	1
1,2,3-Trichlorobenzene	2,510	380		ug/kg	56.9	87-61-6	1
Naphthalene	3,000	300		ug/kg	56.9	91-20-3	1
2-Methylnaphthalene	3,000	100		ug/kg	56.9	91-57-6	1

1-Spiked at 2.84mg/kg



Analytical Laboratory Report

Lab Sample ID: S43653.21

Sample Tag: JS-SB-33_121922(3-4)

Collected Date/Time: 12/19/2022 10:50

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	11.485/11	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	91	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 07:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	57.6	60-29-7	
Acetone	Not detected	1,000		ug/kg	57.6	67-64-1	
Methyl iodide	Not detected	100		ug/kg	57.6	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	57.6	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	57.6	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	57.6	107-13-1	
2-Butanone (MEK)	Not detected	860		ug/kg	57.6	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	57.6	75-71-8	
Chloromethane	Not detected	300		ug/kg	57.6	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	57.6	75-01-4	
Bromomethane	Not detected	200		ug/kg	57.6	74-83-9	
Chloroethane	Not detected	300		ug/kg	57.6	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	57.6	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	57.6	75-35-4	
Methylene chloride	Not detected	100		ug/kg	57.6	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	57.6	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	57.6	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	57.6	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	57.6	109-99-9	
Chloroform	Not detected	60		ug/kg	57.6	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	57.6	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	57.6	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	57.6	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	57.6	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	57.6	56-23-5	
Benzene	Not detected	60		ug/kg	57.6	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	57.6	107-06-2	
Trichloroethene	Not detected	60		ug/kg	57.6	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	57.6	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	57.6	75-27-4	
Dibromomethane	Not detected	300		ug/kg	57.6	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.21 (continued)

Sample Tag: JS-SB-33_121922(3-4)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 07:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	57.6	10061-01-5	
Toluene	Not detected	60		ug/kg	57.6	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	57.6	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	57.6	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	57.6	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	57.6	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	57.6	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	57.6	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	57.6	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	57.6	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	57.6	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	57.6		
o-Xylene	Not detected	60		ug/kg	57.6	95-47-6	
Styrene	Not detected	60		ug/kg	57.6	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	57.6	98-82-8	
Bromoform	Not detected	100		ug/kg	57.6	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	57.6	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	57.6	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	57.6	103-65-1	
Bromobenzene	Not detected	100		ug/kg	57.6	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	57.6	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	57.6	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	57.6	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	57.6	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	57.6	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	57.6	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	57.6	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	57.6	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	57.6	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	57.6	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	57.6	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	57.6	96-12-8	
1,2,4-Trichlorobenzene	Not detected	380		ug/kg	57.6	120-82-1	
1,2,3-Trichlorobenzene	Not detected	380		ug/kg	57.6	87-61-6	
Naphthalene	Not detected	300		ug/kg	57.6	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	57.6	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.22

Sample Tag: JS-SB-33_121922(5-6)

Collected Date/Time: 12/19/2022 10:55

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	12.535/12	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 07:42, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.2	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.2	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.2	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.2	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.2	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.2	107-13-1	
2-Butanone (MEK)	Not detected	920		ug/kg	61.2	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.2	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.2	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.2	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.2	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.2	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.2	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.2	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.2	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.2	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.2	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.2	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	61.2	109-99-9	
Chloroform	Not detected	60		ug/kg	61.2	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.2	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.2	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.2	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.2	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.2	56-23-5	
Benzene	Not detected	60		ug/kg	61.2	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.2	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.2	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.2	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.2	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.2	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.22 (continued)

Sample Tag: JS-SB-33_121922(5-6)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 07:42, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.2	10061-01-5	
Toluene	Not detected	60		ug/kg	61.2	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.2	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.2	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.2	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.2	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.2	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.2	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	61.2	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.2	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	61.2	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	61.2		
o-Xylene	Not detected	60		ug/kg	61.2	95-47-6	
Styrene	Not detected	60		ug/kg	61.2	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.2	98-82-8	
Bromoform	Not detected	100		ug/kg	61.2	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.2	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.2	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	61.2	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.2	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	61.2	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.2	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	61.2	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	61.2	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.2	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.2	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.2	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.2	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	61.2	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	61.2	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.2	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.2	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	61.2	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	61.2	87-61-6	
Naphthalene	Not detected	300		ug/kg	61.2	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	61.2	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.23

Sample Tag: JS-SB-33_121922(7-8)

Collected Date/Time: 12/19/2022 10:58

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.711/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/22 05:14, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	59.4	60-29-7	
Acetone	Not detected	1,000		ug/kg	59.4	67-64-1	
Methyl iodide	Not detected	100		ug/kg	59.4	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	59.4	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	59.4	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	59.4	107-13-1	
2-Butanone (MEK)	Not detected	890		ug/kg	59.4	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	59.4	75-71-8	
Chloromethane	Not detected	300		ug/kg	59.4	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	59.4	75-01-4	
Bromomethane	Not detected	200		ug/kg	59.4	74-83-9	
Chloroethane	Not detected	300		ug/kg	59.4	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	59.4	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	59.4	75-35-4	
Methylene chloride	Not detected	100		ug/kg	59.4	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	59.4	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	59.4	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	59.4	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	59.4	109-99-9	
Chloroform	Not detected	60		ug/kg	59.4	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	59.4	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	59.4	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	59.4	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	59.4	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	59.4	56-23-5	
Benzene	Not detected	60		ug/kg	59.4	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	59.4	107-06-2	
Trichloroethene	Not detected	60		ug/kg	59.4	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	59.4	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	59.4	75-27-4	
Dibromomethane	Not detected	300		ug/kg	59.4	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.23 (continued)

Sample Tag: JS-SB-33_121922(7-8)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/22 05:14, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	59.4	10061-01-5	
Toluene	Not detected	60		ug/kg	59.4	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	59.4	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	59.4	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	59.4	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	59.4	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	59.4	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	59.4	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	59.4	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	59.4	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	59.4	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	59.4		
o-Xylene	Not detected	60		ug/kg	59.4	95-47-6	
Styrene	Not detected	60		ug/kg	59.4	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	59.4	98-82-8	
Bromoform	Not detected	100		ug/kg	59.4	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	59.4	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	59.4	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	59.4	103-65-1	
Bromobenzene	Not detected	100		ug/kg	59.4	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	59.4	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	59.4	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	59.4	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	59.4	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	59.4	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	59.4	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	59.4	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	59.4	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	59.4	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	59.4	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	59.4	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	59.4	96-12-8	
1,2,4-Trichlorobenzene	Not detected	390		ug/kg	59.4	120-82-1	
1,2,3-Trichlorobenzene	Not detected	390		ug/kg	59.4	87-61-6	
Naphthalene	Not detected	300		ug/kg	59.4	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	59.4	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.24

Sample Tag: JS-SB-33_121922(9-10)

Collected Date/Time: 12/19/2022 11:00

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	12.390/12	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/22 05:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.8	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.8	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.8	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.8	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.8	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.8	107-13-1	
2-Butanone (MEK)	Not detected	930		ug/kg	61.8	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.8	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.8	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.8	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.8	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.8	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.8	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.8	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.8	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.8	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.8	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.8	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	61.8	109-99-9	
Chloroform	Not detected	60		ug/kg	61.8	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.8	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.8	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.8	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.8	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.8	56-23-5	
Benzene	Not detected	60		ug/kg	61.8	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.8	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.8	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.8	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.8	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.8	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.24 (continued)

Sample Tag: JS-SB-33_121922(9-10)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/22 05:38, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.8	10061-01-5	
Toluene	Not detected	60		ug/kg	61.8	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.8	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.8	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.8	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.8	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.8	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.8	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	61.8	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.8	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	61.8	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	61.8		
o-Xylene	Not detected	60		ug/kg	61.8	95-47-6	
Styrene	Not detected	60		ug/kg	61.8	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.8	98-82-8	
Bromoform	Not detected	100		ug/kg	61.8	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.8	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.8	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	61.8	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.8	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	61.8	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.8	98-06-6	
1,2,4-Trimethylbenzene	140	60		ug/kg	61.8	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	61.8	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.8	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.8	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.8	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.8	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	61.8	526-73-8	
n-Butylbenzene	150	60		ug/kg	61.8	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.8	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.8	96-12-8	
1,2,4-Trichlorobenzene	Not detected	410		ug/kg	61.8	120-82-1	
1,2,3-Trichlorobenzene	Not detected	410		ug/kg	61.8	87-61-6	
Naphthalene	Not detected	300		ug/kg	61.8	91-20-3	
2-Methylnaphthalene	500	100		ug/kg	61.8	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.25

Sample Tag: JS-SB-33_121922(10-11)

Collected Date/Time: 12/19/2022 11:03

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.238/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	84	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 10:56, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	5,000		ug/kg	1360	60-29-7	Y
Acetone	Not detected	30,000		ug/kg	1360	67-64-1	Y
Methyl iodide	Not detected	3,000		ug/kg	1360	74-88-4	Y
Carbon disulfide	Not detected	7,000		ug/kg	1360	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	5,000		ug/kg	1360	1634-04-4	Y
Acrylonitrile	Not detected	3,000		ug/kg	1360	107-13-1	Y
2-Butanone (MEK)	Not detected	20,000		ug/kg	1360	78-93-3	Y
Dichlorodifluoromethane	Not detected	7,000		ug/kg	1360	75-71-8	Y
Chloromethane	Not detected	7,000		ug/kg	1360	74-87-3	Y
Vinyl chloride	Not detected	1,000		ug/kg	1360	75-01-4	Y
Bromomethane	Not detected	5,000		ug/kg	1360	74-83-9	Y
Chloroethane	Not detected	7,000		ug/kg	1360	75-00-3	Y
Trichlorofluoromethane	Not detected	3,000		ug/kg	1360	75-69-4	Y
1,1-Dichloroethene	Not detected	1,000		ug/kg	1360	75-35-4	Y
Methylene chloride	Not detected	3,000		ug/kg	1360	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	1,000		ug/kg	1360	156-60-5	Y
1,1-Dichloroethane	Not detected	1,000		ug/kg	1360	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	1,000		ug/kg	1360	156-59-2	Y
Tetrahydrofuran*	Not detected	30,000		ug/kg	1360	109-99-9	Y
Chloroform	Not detected	1,000		ug/kg	1360	67-66-3	Y
Bromochloromethane	Not detected	3,000		ug/kg	1360	74-97-5	Y
1,1,1-Trichloroethane	Not detected	1,000		ug/kg	1360	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	70,000		ug/kg	1360	108-10-1	Y
2-Hexanone	Not detected	70,000		ug/kg	1360	591-78-6	Y
Carbon tetrachloride	Not detected	1,000		ug/kg	1360	56-23-5	Y
Benzene	Not detected	1,000		ug/kg	1360	71-43-2	Y
1,2-Dichloroethane	Not detected	1,000		ug/kg	1360	107-06-2	Y
Trichloroethene	Not detected	1,000		ug/kg	1360	79-01-6	Y
1,2-Dichloropropane	Not detected	1,000		ug/kg	1360	78-87-5	Y
Bromodichloromethane	Not detected	3,000		ug/kg	1360	75-27-4	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S43653.25 (continued)

Sample Tag: JS-SB-33_121922(10-11)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 10:56, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromomethane	Not detected	7,000		ug/kg	1360	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	1,000		ug/kg	1360	10061-01-5	Y
Toluene	Not detected	1,000		ug/kg	1360	108-88-3	Y
trans-1,3-Dichloropropene	Not detected	1,000		ug/kg	1360	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	1,000		ug/kg	1360	79-00-5	Y
Tetrachloroethene	Not detected	1,000		ug/kg	1360	127-18-4	Y
trans-1,4-Dichloro-2-butene	Not detected	1,000		ug/kg	1360	110-57-6	Y
Dibromochloromethane	Not detected	3,000		ug/kg	1360	124-48-1	Y
1,2-Dibromoethane	Not detected	500		ug/kg	1360	106-93-4	YM
Chlorobenzene	Not detected	1,000		ug/kg	1360	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	3,000		ug/kg	1360	630-20-6	Y
Ethylbenzene	22,000	1,000		ug/kg	1360	100-41-4	Y
p,m-Xylene	40,000	3,000		ug/kg	1360		Y
o-Xylene	Not detected	1,000		ug/kg	1360	95-47-6	Y
Styrene	Not detected	1,000		ug/kg	1360	100-42-5	Y
Isopropylbenzene	Not detected	7,000		ug/kg	1360	98-82-8	Y
Bromoform	Not detected	3,000		ug/kg	1360	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	1,000		ug/kg	1360	79-34-5	Y
1,2,3-Trichloropropane	Not detected	3,000		ug/kg	1360	96-18-4	Y
n-Propylbenzene	27,000	1,000		ug/kg	1360	103-65-1	Y
Bromobenzene	Not detected	3,000		ug/kg	1360	108-86-1	Y
1,3,5-Trimethylbenzene	27,000	1,000		ug/kg	1360	108-67-8	Y
tert-Butylbenzene	Not detected	1,000		ug/kg	1360	98-06-6	Y
1,2,4-Trimethylbenzene	137,000	1,000		ug/kg	1360	95-63-6	Y
sec-Butylbenzene	4,000	1,000		ug/kg	1360	135-98-8	Y
p-Isopropyltoluene	Not detected	3,000		ug/kg	1360	99-87-6	Y
1,3-Dichlorobenzene	Not detected	3,000		ug/kg	1360	541-73-1	Y
1,4-Dichlorobenzene	Not detected	3,000		ug/kg	1360	106-46-7	Y
1,2-Dichlorobenzene	Not detected	3,000		ug/kg	1360	95-50-1	Y
1,2,3-Trimethylbenzene	33,000	1,000		ug/kg	1360	526-73-8	Y
n-Butylbenzene	21,000	1,000		ug/kg	1360	104-51-8	Y
Hexachloroethane	Not detected	8,000		ug/kg	1360	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	7,000		ug/kg	1360	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	9,000		ug/kg	1360	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	9,000		ug/kg	1360	87-61-6	Y
Naphthalene	10,000	7,000		ug/kg	1360	91-20-3	Y
2-Methylnaphthalene	16,000	3,000		ug/kg	1360	91-57-6	Y

Y-Elevated reporting limit due to high target concentration

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.26

Sample Tag: DUP-01_121922

Collected Date/Time: 12/19/2022 00:01

Matrix: Soil

COC Reference: 158762

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	14.171/14	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 08:06, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.7	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.7	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.7	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.7	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.7	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.7	107-13-1	
2-Butanone (MEK)	Not detected	930		ug/kg	61.7	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.7	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.7	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.7	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.7	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.7	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.7	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.7	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.7	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.7	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.7	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.7	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	61.7	109-99-9	
Chloroform	Not detected	60		ug/kg	61.7	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.7	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.7	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.7	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.7	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.7	56-23-5	
Benzene	Not detected	60		ug/kg	61.7	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.7	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.7	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.7	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.7	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.7	74-95-3	

Lab Sample ID: S43653.26 (continued)

Sample Tag: DUP-01_121922

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 08:06, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.7	10061-01-5	
Toluene	Not detected	60		ug/kg	61.7	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.7	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.7	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.7	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.7	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.7	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.7	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	61.7	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.7	630-20-6	
Ethylbenzene	4,630	60		ug/kg	61.7	100-41-4	
p,m-Xylene	6,300	100		ug/kg	61.7		
o-Xylene	70	60		ug/kg	61.7	95-47-6	
Styrene	Not detected	60		ug/kg	61.7	100-42-5	
Isopropylbenzene	400	300		ug/kg	61.7	98-82-8	
Bromoform	Not detected	100		ug/kg	61.7	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.7	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.7	96-18-4	
n-Propylbenzene	2,150	60		ug/kg	61.7	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.7	108-86-1	
1,3,5-Trimethylbenzene	410	60		ug/kg	61.7	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.7	98-06-6	
1,2,4-Trimethylbenzene	10,750	60		ug/kg	61.7	95-63-6	
sec-Butylbenzene	130	60		ug/kg	61.7	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.7	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.7	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.7	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.7	95-50-1	
1,2,3-Trimethylbenzene	3,210	60		ug/kg	61.7	526-73-8	
n-Butylbenzene	660	60		ug/kg	61.7	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.7	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.7	96-12-8	
1,2,4-Trichlorobenzene	Not detected	410		ug/kg	61.7	120-82-1	
1,2,3-Trichlorobenzene	Not detected	410		ug/kg	61.7	87-61-6	
Naphthalene	2,600	300		ug/kg	61.7	91-20-3	
2-Methylnaphthalene	1,200	100		ug/kg	61.7	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.27

Sample Tag: JS-SB-33_121922(11-12)

Collected Date/Time: 12/19/2022 11:05

Matrix: Soil

COC Reference: 158761

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.990/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	85	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 11:21, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	5,000		ug/kg	1270	60-29-7	Y
Acetone	Not detected	30,000		ug/kg	1270	67-64-1	Y
Methyl iodide	Not detected	3,000		ug/kg	1270	74-88-4	Y
Carbon disulfide	Not detected	6,000		ug/kg	1270	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	5,000		ug/kg	1270	1634-04-4	Y
Acrylonitrile	Not detected	3,000		ug/kg	1270	107-13-1	Y
2-Butanone (MEK)	Not detected	19,000		ug/kg	1270	78-93-3	Y
Dichlorodifluoromethane	Not detected	6,000		ug/kg	1270	75-71-8	Y
Chloromethane	Not detected	6,000		ug/kg	1270	74-87-3	Y
Vinyl chloride	Not detected	1,000		ug/kg	1270	75-01-4	Y
Bromomethane	Not detected	5,000		ug/kg	1270	74-83-9	Y
Chloroethane	Not detected	6,000		ug/kg	1270	75-00-3	Y
Trichlorofluoromethane	Not detected	3,000		ug/kg	1270	75-69-4	Y
1,1-Dichloroethene	Not detected	1,000		ug/kg	1270	75-35-4	Y
Methylene chloride	Not detected	3,000		ug/kg	1270	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	1,000		ug/kg	1270	156-60-5	Y
1,1-Dichloroethane	Not detected	1,000		ug/kg	1270	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	1,000		ug/kg	1270	156-59-2	Y
Tetrahydrofuran*	Not detected	30,000		ug/kg	1270	109-99-9	Y
Chloroform	Not detected	1,000		ug/kg	1270	67-66-3	Y
Bromochloromethane	Not detected	3,000		ug/kg	1270	74-97-5	Y
1,1,1-Trichloroethane	Not detected	1,000		ug/kg	1270	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	60,000		ug/kg	1270	108-10-1	Y
2-Hexanone	Not detected	60,000		ug/kg	1270	591-78-6	Y
Carbon tetrachloride	Not detected	1,000		ug/kg	1270	56-23-5	Y
Benzene	Not detected	1,000		ug/kg	1270	71-43-2	Y
1,2-Dichloroethane	Not detected	1,000		ug/kg	1270	107-06-2	Y
Trichloroethene	Not detected	1,000		ug/kg	1270	79-01-6	Y
1,2-Dichloropropane	Not detected	1,000		ug/kg	1270	78-87-5	Y
Bromodichloromethane	Not detected	3,000		ug/kg	1270	75-27-4	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Lab Sample ID: S43653.27 (continued)

Sample Tag: JS-SB-33_121922(11-12)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 11:21, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromomethane	Not detected	6,000		ug/kg	1270	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	1,000		ug/kg	1270	10061-01-5	Y
Toluene	Not detected	1,000		ug/kg	1270	108-88-3	Y
trans-1,3-Dichloropropene	Not detected	1,000		ug/kg	1270	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	1,000		ug/kg	1270	79-00-5	Y
Tetrachloroethene	Not detected	1,000		ug/kg	1270	127-18-4	Y
trans-1,4-Dichloro-2-butene	Not detected	1,000		ug/kg	1270	110-57-6	Y
Dibromochloromethane	Not detected	3,000		ug/kg	1270	124-48-1	Y
1,2-Dibromoethane	Not detected	500		ug/kg	1270	106-93-4	YM
Chlorobenzene	Not detected	1,000		ug/kg	1270	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	3,000		ug/kg	1270	630-20-6	Y
Ethylbenzene	33,000	1,000		ug/kg	1270	100-41-4	Y
p,m-Xylene	56,000	3,000		ug/kg	1270		Y
o-Xylene	Not detected	1,000		ug/kg	1270	95-47-6	Y
Styrene	Not detected	1,000		ug/kg	1270	100-42-5	Y
Isopropylbenzene	7,000	6,000		ug/kg	1270	98-82-8	Y
Bromoform	Not detected	3,000		ug/kg	1270	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	1,000		ug/kg	1270	79-34-5	Y
1,2,3-Trichloropropane	Not detected	3,000		ug/kg	1270	96-18-4	Y
n-Propylbenzene	38,000	1,000		ug/kg	1270	103-65-1	Y
Bromobenzene	Not detected	3,000		ug/kg	1270	108-86-1	Y
1,3,5-Trimethylbenzene	26,000	1,000		ug/kg	1270	108-67-8	Y
tert-Butylbenzene	Not detected	1,000		ug/kg	1270	98-06-6	Y
1,2,4-Trimethylbenzene	188,000	1,000		ug/kg	1270	95-63-6	Y
sec-Butylbenzene	5,000	1,000		ug/kg	1270	135-98-8	Y
p-Isopropyltoluene	Not detected	3,000		ug/kg	1270	99-87-6	Y
1,3-Dichlorobenzene	Not detected	3,000		ug/kg	1270	541-73-1	Y
1,4-Dichlorobenzene	Not detected	3,000		ug/kg	1270	106-46-7	Y
1,2-Dichlorobenzene	Not detected	3,000		ug/kg	1270	95-50-1	Y
1,2,3-Trimethylbenzene	47,000	1,000		ug/kg	1270	526-73-8	Y
n-Butylbenzene	25,000	1,000		ug/kg	1270	104-51-8	Y
Hexachloroethane	Not detected	8,000		ug/kg	1270	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	6,000		ug/kg	1270	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	8,400		ug/kg	1270	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	8,400		ug/kg	1270	87-61-6	Y
Naphthalene	15,000	6,000		ug/kg	1270	91-20-3	Y
2-Methylnaphthalene	28,000	3,000		ug/kg	1270	91-57-6	Y

Y-Elevated reporting limit due to high target concentration

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.28

Sample Tag: JS-SB-33_121922(12-13)

Collected Date/Time: 12/19/2022 11:08

Matrix: Soil

COC Reference: 158761

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	14.524/14	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 08:31, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	60.3	60-29-7	
Acetone	Not detected	1,000		ug/kg	60.3	67-64-1	
Methyl iodide	Not detected	100		ug/kg	60.3	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	60.3	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	60.3	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	60.3	107-13-1	
2-Butanone (MEK)	Not detected	900		ug/kg	60.3	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	60.3	75-71-8	
Chloromethane	Not detected	300		ug/kg	60.3	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	60.3	75-01-4	
Bromomethane	Not detected	200		ug/kg	60.3	74-83-9	
Chloroethane	Not detected	300		ug/kg	60.3	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	60.3	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	60.3	75-35-4	
Methylene chloride	Not detected	100		ug/kg	60.3	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	60.3	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	60.3	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	60.3	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	60.3	109-99-9	
Chloroform	Not detected	60		ug/kg	60.3	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	60.3	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	60.3	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	60.3	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	60.3	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	60.3	56-23-5	
Benzene	Not detected	60		ug/kg	60.3	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	60.3	107-06-2	
Trichloroethene	Not detected	60		ug/kg	60.3	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	60.3	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	60.3	75-27-4	
Dibromomethane	Not detected	300		ug/kg	60.3	74-95-3	

Lab Sample ID: S43653.28 (continued)

Sample Tag: JS-SB-33_121922(12-13)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 08:31, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	60.3	10061-01-5	
Toluene	Not detected	60		ug/kg	60.3	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	60.3	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	60.3	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	60.3	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	60.3	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	60.3	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	60.3	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	60.3	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	60.3	630-20-6	
Ethylbenzene	1,940	60		ug/kg	60.3	100-41-4	
p,m-Xylene	2,300	100		ug/kg	60.3		
o-Xylene	Not detected	60		ug/kg	60.3	95-47-6	
Styrene	Not detected	60		ug/kg	60.3	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	60.3	98-82-8	
Bromoform	Not detected	100		ug/kg	60.3	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	60.3	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	60.3	96-18-4	
n-Propylbenzene	1,230	60		ug/kg	60.3	103-65-1	
Bromobenzene	Not detected	100		ug/kg	60.3	108-86-1	
1,3,5-Trimethylbenzene	160	60		ug/kg	60.3	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	60.3	98-06-6	
1,2,4-Trimethylbenzene	4,400	60		ug/kg	60.3	95-63-6	
sec-Butylbenzene	80	60		ug/kg	60.3	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	60.3	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	60.3	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	60.3	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	60.3	95-50-1	
1,2,3-Trimethylbenzene	1,340	60		ug/kg	60.3	526-73-8	
n-Butylbenzene	270	60		ug/kg	60.3	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	60.3	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	60.3	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	60.3	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	60.3	87-61-6	
Naphthalene	900	300		ug/kg	60.3	91-20-3	
2-Methylnaphthalene	500	100		ug/kg	60.3	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.29

Sample Tag: DUP-02_121922

Collected Date/Time: 12/19/2022 00:01

Matrix: Soil

COC Reference: 158761

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	13.638/13	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	83	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 10:08, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	3,000		ug/kg	677	60-29-7	Y
Acetone	Not detected	10,000		ug/kg	677	67-64-1	Y
Methyl iodide	Not detected	1,000		ug/kg	677	74-88-4	Y
Carbon disulfide	Not detected	3,000		ug/kg	677	75-15-0	Y
tert-Methyl butyl ether (MTBE)	Not detected	3,000		ug/kg	677	1634-04-4	Y
Acrylonitrile	Not detected	1,000		ug/kg	677	107-13-1	Y
2-Butanone (MEK)	Not detected	10,000		ug/kg	677	78-93-3	Y
Dichlorodifluoromethane	Not detected	3,000		ug/kg	677	75-71-8	Y
Chloromethane	Not detected	3,000		ug/kg	677	74-87-3	Y
Vinyl chloride	Not detected	700		ug/kg	677	75-01-4	Y
Bromomethane	Not detected	3,000		ug/kg	677	74-83-9	Y
Chloroethane	Not detected	3,000		ug/kg	677	75-00-3	Y
Trichlorofluoromethane	Not detected	1,000		ug/kg	677	75-69-4	Y
1,1-Dichloroethene	Not detected	700		ug/kg	677	75-35-4	Y
Methylene chloride	Not detected	1,000		ug/kg	677	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	700		ug/kg	677	156-60-5	Y
1,1-Dichloroethane	Not detected	700		ug/kg	677	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	700		ug/kg	677	156-59-2	Y
Tetrahydrofuran*	Not detected	10,000		ug/kg	677	109-99-9	Y
Chloroform	Not detected	700		ug/kg	677	67-66-3	Y
Bromochloromethane	Not detected	1,000		ug/kg	677	74-97-5	Y
1,1,1-Trichloroethane	Not detected	700		ug/kg	677	71-55-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	30,000		ug/kg	677	108-10-1	Y
2-Hexanone	Not detected	30,000		ug/kg	677	591-78-6	Y
Carbon tetrachloride	Not detected	700		ug/kg	677	56-23-5	Y
Benzene	Not detected	700		ug/kg	677	71-43-2	Y
1,2-Dichloroethane	Not detected	700		ug/kg	677	107-06-2	Y
Trichloroethene	Not detected	700		ug/kg	677	79-01-6	Y
1,2-Dichloropropane	Not detected	700		ug/kg	677	78-87-5	Y
Bromodichloromethane	Not detected	1,000		ug/kg	677	75-27-4	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S43653.29 (continued)

Sample Tag: DUP-02_121922

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 10:08, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromomethane	Not detected	3,000		ug/kg	677	74-95-3	Y
cis-1,3-Dichloropropene	Not detected	700		ug/kg	677	10061-01-5	Y
Toluene	Not detected	700		ug/kg	677	108-88-3	Y
trans-1,3-Dichloropropene	Not detected	700		ug/kg	677	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	700		ug/kg	677	79-00-5	Y
Tetrachloroethene	Not detected	700		ug/kg	677	127-18-4	Y
trans-1,4-Dichloro-2-butene	Not detected	700		ug/kg	677	110-57-6	Y
Dibromochloromethane	Not detected	1,000		ug/kg	677	124-48-1	Y
1,2-Dibromoethane	Not detected	300		ug/kg	677	106-93-4	YM
Chlorobenzene	Not detected	700		ug/kg	677	108-90-7	Y
1,1,1,2-Tetrachloroethane	Not detected	1,000		ug/kg	677	630-20-6	Y
Ethylbenzene	3,700	700		ug/kg	677	100-41-4	Y
p,m-Xylene	7,000	1,000		ug/kg	677		Y
o-Xylene	Not detected	700		ug/kg	677	95-47-6	Y
Styrene	Not detected	700		ug/kg	677	100-42-5	Y
Isopropylbenzene	Not detected	3,000		ug/kg	677	98-82-8	Y
Bromoform	Not detected	1,000		ug/kg	677	75-25-2	Y
1,1,2,2-Tetrachloroethane	Not detected	700		ug/kg	677	79-34-5	Y
1,2,3-Trichloropropane	Not detected	1,000		ug/kg	677	96-18-4	Y
n-Propylbenzene	3,800	700		ug/kg	677	103-65-1	Y
Bromobenzene	Not detected	1,000		ug/kg	677	108-86-1	Y
1,3,5-Trimethylbenzene	1,200	700		ug/kg	677	108-67-8	Y
tert-Butylbenzene	Not detected	700		ug/kg	677	98-06-6	Y
1,2,4-Trimethylbenzene	20,800	700		ug/kg	677	95-63-6	Y
sec-Butylbenzene	Not detected	700		ug/kg	677	135-98-8	Y
p-Isopropyltoluene	Not detected	1,000		ug/kg	677	99-87-6	Y
1,3-Dichlorobenzene	Not detected	1,000		ug/kg	677	541-73-1	Y
1,4-Dichlorobenzene	Not detected	1,000		ug/kg	677	106-46-7	Y
1,2-Dichlorobenzene	Not detected	1,000		ug/kg	677	95-50-1	Y
1,2,3-Trimethylbenzene	4,700	700		ug/kg	677	526-73-8	Y
n-Butylbenzene	2,100	700		ug/kg	677	104-51-8	Y
Hexachloroethane	Not detected	4,000		ug/kg	677	67-72-1	Y
1,2-Dibromo-3-chloropropane	Not detected	3,000		ug/kg	677	96-12-8	Y
1,2,4-Trichlorobenzene	Not detected	4,500		ug/kg	677	120-82-1	Y
1,2,3-Trichlorobenzene	Not detected	4,500		ug/kg	677	87-61-6	Y
Naphthalene	Not detected	3,000		ug/kg	677	91-20-3	Y
2-Methylnaphthalene	2,000	1,000		ug/kg	677	91-57-6	Y

Y-Elevated reporting limit due to high target concentration

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.30

Sample Tag: DUP-03_121922

Collected Date/Time: 12/19/2022 00:01

Matrix: Soil

COC Reference: 158761

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR
1	4oz Glass	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	16.026/16	SW5035A	12/20/22 10:42	BDO	

Inorganics

Method: SM2540B, Run Date: 12/20/22 18:26, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/22 08:04, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	62.3	60-29-7	
Acetone	Not detected	1,000		ug/kg	62.3	67-64-1	
Methyl iodide	Not detected	100		ug/kg	62.3	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	62.3	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	62.3	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	62.3	107-13-1	
2-Butanone (MEK)	Not detected	930		ug/kg	62.3	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	62.3	75-71-8	
Chloromethane	Not detected	300		ug/kg	62.3	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	62.3	75-01-4	
Bromomethane	Not detected	200		ug/kg	62.3	74-83-9	
Chloroethane	Not detected	300		ug/kg	62.3	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	62.3	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	62.3	75-35-4	
Methylene chloride	Not detected	100		ug/kg	62.3	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	62.3	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	62.3	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	62.3	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	62.3	109-99-9	
Chloroform	Not detected	60		ug/kg	62.3	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	62.3	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	62.3	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	62.3	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	62.3	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	62.3	56-23-5	
Benzene	Not detected	60		ug/kg	62.3	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	62.3	107-06-2	
Trichloroethene	Not detected	60		ug/kg	62.3	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	62.3	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	62.3	75-27-4	
Dibromomethane	Not detected	300		ug/kg	62.3	74-95-3	



Analytical Laboratory Report

Lab Sample ID: S43653.30 (continued)

Sample Tag: DUP-03_121922

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/22 08:04, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	62.3	10061-01-5	
Toluene	Not detected	60		ug/kg	62.3	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	62.3	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	62.3	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	62.3	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	62.3	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	62.3	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	62.3	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	62.3	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	62.3	630-20-6	
Ethylbenzene	1,780	60		ug/kg	62.3	100-41-4	
p,m-Xylene	2,900	100		ug/kg	62.3		
o-Xylene	Not detected	60		ug/kg	62.3	95-47-6	
Styrene	Not detected	60		ug/kg	62.3	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	62.3	98-82-8	
Bromoform	Not detected	100		ug/kg	62.3	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	62.3	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	62.3	96-18-4	
n-Propylbenzene	1,400	60		ug/kg	62.3	103-65-1	
Bromobenzene	Not detected	100		ug/kg	62.3	108-86-1	
1,3,5-Trimethylbenzene	250	60		ug/kg	62.3	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	62.3	98-06-6	
1,2,4-Trimethylbenzene	5,720	60		ug/kg	62.3	95-63-6	
sec-Butylbenzene	90	60		ug/kg	62.3	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	62.3	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	62.3	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	62.3	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	62.3	95-50-1	
1,2,3-Trimethylbenzene	980	60		ug/kg	62.3	526-73-8	
n-Butylbenzene	360	60		ug/kg	62.3	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	62.3	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	62.3	96-12-8	
1,2,4-Trichlorobenzene	Not detected	410		ug/kg	62.3	120-82-1	
1,2,3-Trichlorobenzene	Not detected	410		ug/kg	62.3	87-61-6	
Naphthalene	1,500	300		ug/kg	62.3	91-20-3	
2-Methylnaphthalene	1,100	100		ug/kg	62.3	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S43653.31

Sample Tag: Trip Blank

Collected Date/Time: 12/19/2022 00:01

Matrix: Methanol

COC Reference: 158761

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	10/10	SW5035A	12/20/22 10:42	BDO	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 05:41, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	50	60-29-7	
Acetone	Not detected	1,000		ug/kg	50	67-64-1	
Methyl iodide	Not detected	100		ug/kg	50	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	50	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	50	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	50	107-13-1	
2-Butanone (MEK)	Not detected	750		ug/kg	50	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	50	75-71-8	
Chloromethane	Not detected	300		ug/kg	50	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	50	75-01-4	
Bromomethane	Not detected	200		ug/kg	50	74-83-9	
Chloroethane	Not detected	300		ug/kg	50	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	50	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	50	75-35-4	
Methylene chloride	Not detected	100		ug/kg	50	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	50	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	50	109-99-9	
Chloroform	Not detected	50		ug/kg	50	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	50	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	50	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	50	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	50	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	50	56-23-5	
Benzene	Not detected	50		ug/kg	50	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	50	107-06-2	
Trichloroethene	Not detected	50		ug/kg	50	79-01-6	
1,2-Dichloropropane	Not detected	50		ug/kg	50	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	50	75-27-4	
Dibromomethane	Not detected	300		ug/kg	50	74-95-3	
cis-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-01-5	
Toluene	Not detected	50		ug/kg	50	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	50	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	50	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	50	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S43653.31 (continued)

Sample Tag: Trip Blank

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/30/22 05:41, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	100		ug/kg	50	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	50	106-93-4	M
Chlorobenzene	Not detected	50		ug/kg	50	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	50	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	50	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	50		
o-Xylene	Not detected	50		ug/kg	50	95-47-6	
Styrene	Not detected	50		ug/kg	50	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	50	98-82-8	
Bromoform	Not detected	100		ug/kg	50	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	50		ug/kg	50	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	50	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	50	103-65-1	
Bromobenzene	Not detected	100		ug/kg	50	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	50	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	50	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	50	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	50	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	50	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	50	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	50	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	50	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	50	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	50	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	50	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	50	96-12-8	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	50	120-82-1	
1,2,3-Trichlorobenzene	Not detected	330		ug/kg	50	87-61-6	
Naphthalene	Not detected	300		ug/kg	50	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	50	91-57-6	

M-Result reported to MDL not RDL

Merit Laboratories Login Checklist

Lab Set ID:S43653

Client:ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: 30112891.00005 - Racer PNC

Submitted: 12/19/2022 16:45 Login User: MMC

Attention: Alexis Crisp

Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:

Email: Alexis.Crisp@arcadis.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 3.6
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☐ No ☒ N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 3 158763

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME IAN DROST / LEXI CRISP			
COMPANY ARCADIS			
ADDRESS 28550 CABOT DRIVE #500			
CITY NOVI		STATE MI	ZIP CODE 48377
PHONE NO	CELL NO	P.O. NO.	
E-MAIL ADDRESS IAN.DROST@ARCADIS.COM LEXI.CRISP@ARCADIS.COM		QUOTE NO	

CONTACT NAME ACCOUNTS PAYABLE		☐ SAME	
COMPANY ARCADIS			
ADDRESS 630 PLAZA DRIVE #600			
CITY HIGHLANDS RANCH		STATE CO	ZIP CODE 80129
PHONE NO	E-MAIL ADDRESS ACCOUNTS.PAYABLE.ADM@ARCADIS.COM		

PROJECT NO./NAME 30112891.00005 - RACER PUC	SAMPLER(S) - PLEASE PRINT/SIGN NAME CHRISTINA WEAVER
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER	
DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER	

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	VOCs via USEPA BGL											Certifications ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES Project Locations ☐ Detroit ☐ New York ☐ Other Special Instructions
	DATE	TIME																						
43653.01	12/19/22	0905	JS-SB-31-121922(1-2)	S	2	1					1		X											1 MeOH, 140Z DRY WEIGHT
.02		0907	JS-SB-31-121922(3-4)	S	2	1					1		X											
.03		0910	JS-SB-31-121922(5-6)	S	2	1					1		X											
.04		0913	JS-SB-31-121922(7-8)	S	2	1					1		X											
.05		0915	JS-SB-31-121922(9-10)	S	2	1					1		X											
.06		0918	JS-SB-31-121922(11-12)	S	2	1					1		X											
.07		1135	JS-SB-31A-121922(12-13)	S	2	1					1		X											
.08		1130	JS-SB-31A-121922(13-14)	S	2	1					1		X											
.09		0957	JS-SB-32-121922(1-2)	S	2	1					1		X											
.10		0958	JS-SB-32-121922(3-4)	S	2	1					1		X											
.11		0959	JS-SB-32-121922(5-6)	S	2	1					1		X											
.12		1000	JS-SB-32-121922(7-8)	S	2	1					1		X											

RELINQUISHED BY: SIGNATURE/ORGANIZATION Christina Weaver / ARCADIS	DATE 12/19/22	TIME 1400
RECEIVED BY: SIGNATURE/ORGANIZATION J. Miller	DATE 12/19/22	TIME 16:45
RELINQUISHED BY: SIGNATURE/ORGANIZATION J. Miller	DATE 12/19/22	TIME 16:45
RECEIVED BY: SIGNATURE/ORGANIZATION M. Calcutt	DATE 12/19/22	TIME 1645

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
SEAL NO	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
NOTES		TEMP. ON ARRIVAL 3.6

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



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C.O.C. PAGE # 2 OF 3 158762

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME IAN DROST / LEXI CRISP			
COMPANY ARCADIS			
ADDRESS 28550 CABOT DRIVE #500			
CITY NORT	STATE MI	ZIP CODE 48877	
PHONE NO.	CELL NO.	P.O. NO.	
E-MAIL ADDRESS IAN.DROST@ARCADIS.COM LEXI.CRISP@ARCADIS.COM TIFFANY.LUNDER@ARCADIS.COM			

CONTACT NAME ACCOUNTS PAYABLE		☐ SAME	
COMPANY ARCADIS			
ADDRESS 630 PLAZA DRIVE #600			
CITY HIGHLANDS RANCH	STATE CO	ZIP CODE 80129	
PHONE NO.	E-MAIL ADDRESS ACCOUNTSPAYABLE.ADM@ARCADIS.COM		

PROJECT NO./NAME 30112891.00005 - RACER PAC	SAMPLER(S) - PLEASE PRINT/SIGN NAME CHRISTINA WEAVER
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER	
DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER	

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE	# Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	VOCs	ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)										Certifications																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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43653.13	12/14/22	1003	JS-SB-32_121922(9-10)	S	2	1					1		X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</

RELINQUISHED BY: SIGNATURE/ORGANIZATION ARCADIS	DATE 12/19/22	TIME 1400
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE 12/19/22	TIME 1400
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE 12/19/22	TIME 1645
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE 12/19/22	TIME 1645

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE 12/19/22	TIME 1400		
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE 12/19/22	TIME 1400		
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES:	TEMP. ON ARRIVAL 3.6
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS		

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME IAN DROST / LEXI CRISP		CONTACT NAME ACCOUNTS PAYABLE		☐ SAME	
COMPANY ARCADIS		COMPANY ARCADIS			
ADDRESS 28550 CABOT DRIVE #500		ADDRESS ~~28550 CABOT DRIVE~~ ^(cu) 630 PLAZA DRIVE #600			
CITY NOVI		CITY HIGHLANDS RANCH		STATE CO	
STATE MI		ZIP CODE 48377		ZIP CODE 80129	
PHONE NO. _____		CELL NO. _____		P.O. NO. _____	
E-MAIL ADDRESS TIFFANY.LENDER@ARCADIS.COM IAN.DROST@ARCADIS.COM LEXI.CRISP@ARCADIS.COM		QUOTE NO. _____		E-MAIL ADDRESS ACCOUNTSPAYABLE.ADMINISTRATION@ARCADIS.COM	
ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)					

PROJECT NO./NAME 30112891.00005	SAMPLER(S) - PLEASE PRINT/SIGN NAME CHRISTINA WEAVER
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER	
DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER	

MATRIX	W=WATER	GW=GROUNDWATER	WW=WASTEWATER	S=SOIL	L=LIQUID	SD=SOLID
CODE:	SL=SLUDGE	DW=DRINKING WATER	O=OIL	WP=WIPE	A=AIR	WS=WASTE

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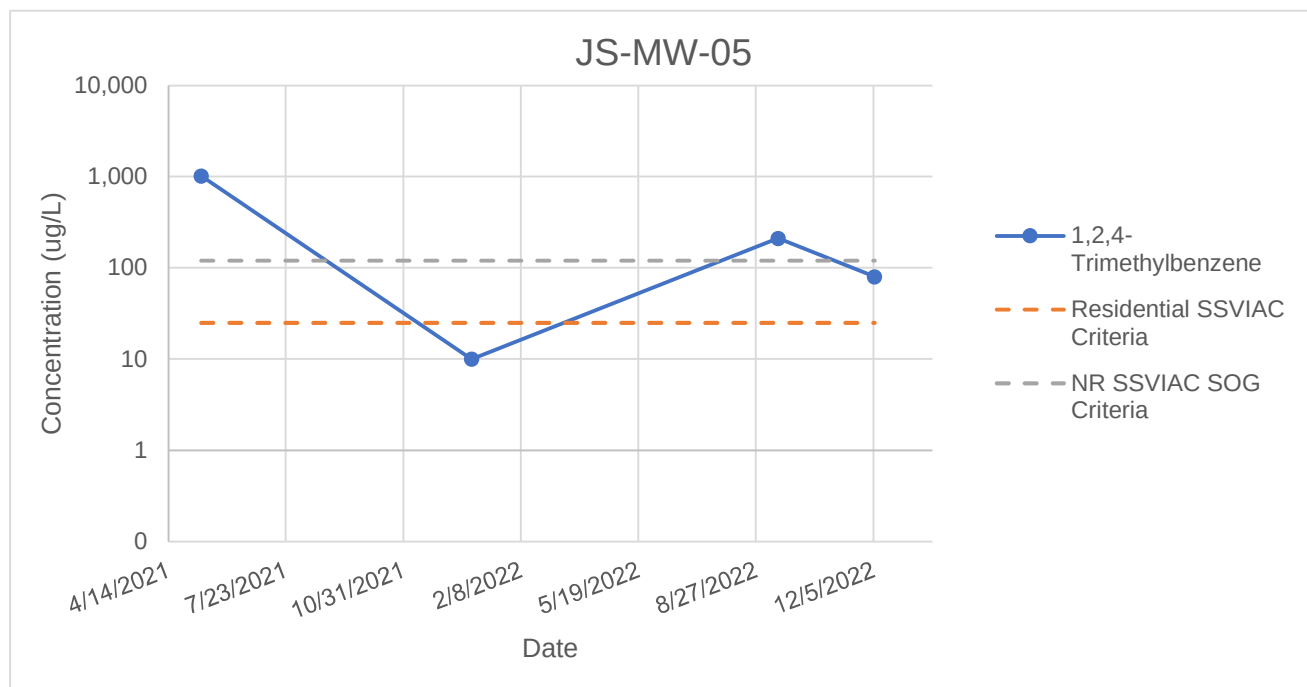
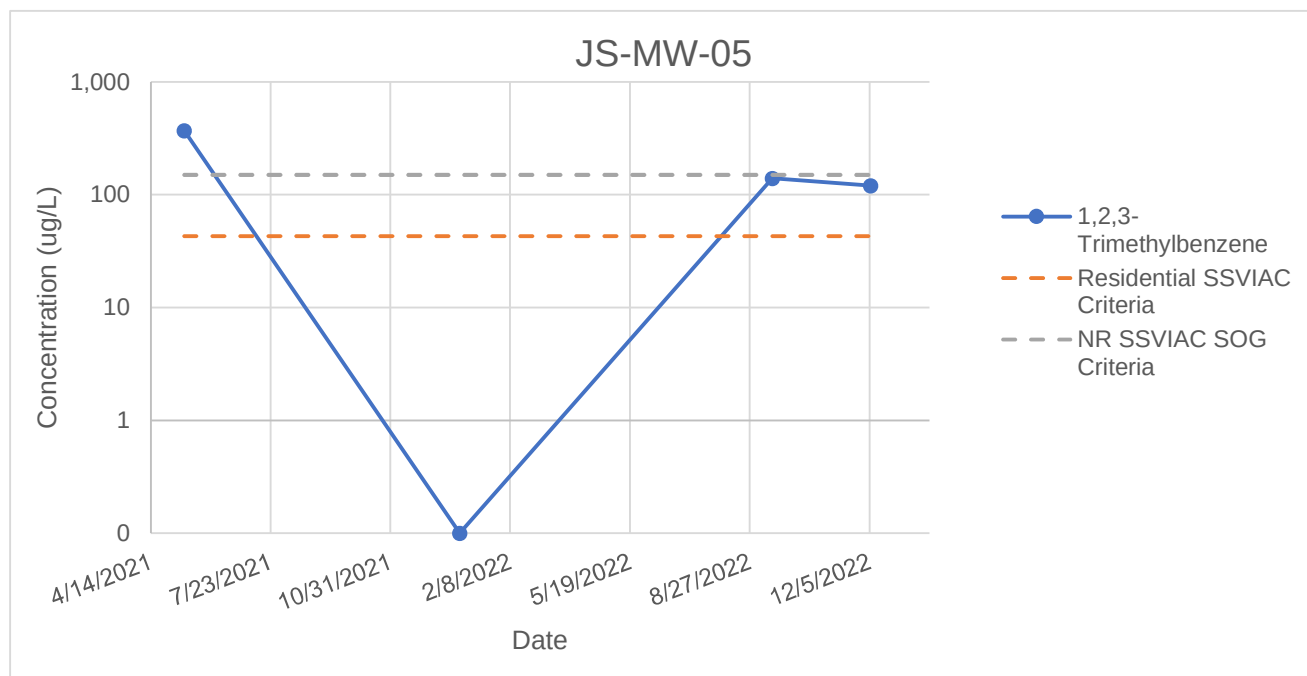
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RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>J. Smith</i>		DATE 12/19/22	TIME 1645	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL 3.6
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>M. Smith</i>		DATE 12/19/22	TIME 1645	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Appendix E

Groundwater Analytical Trend Graphs

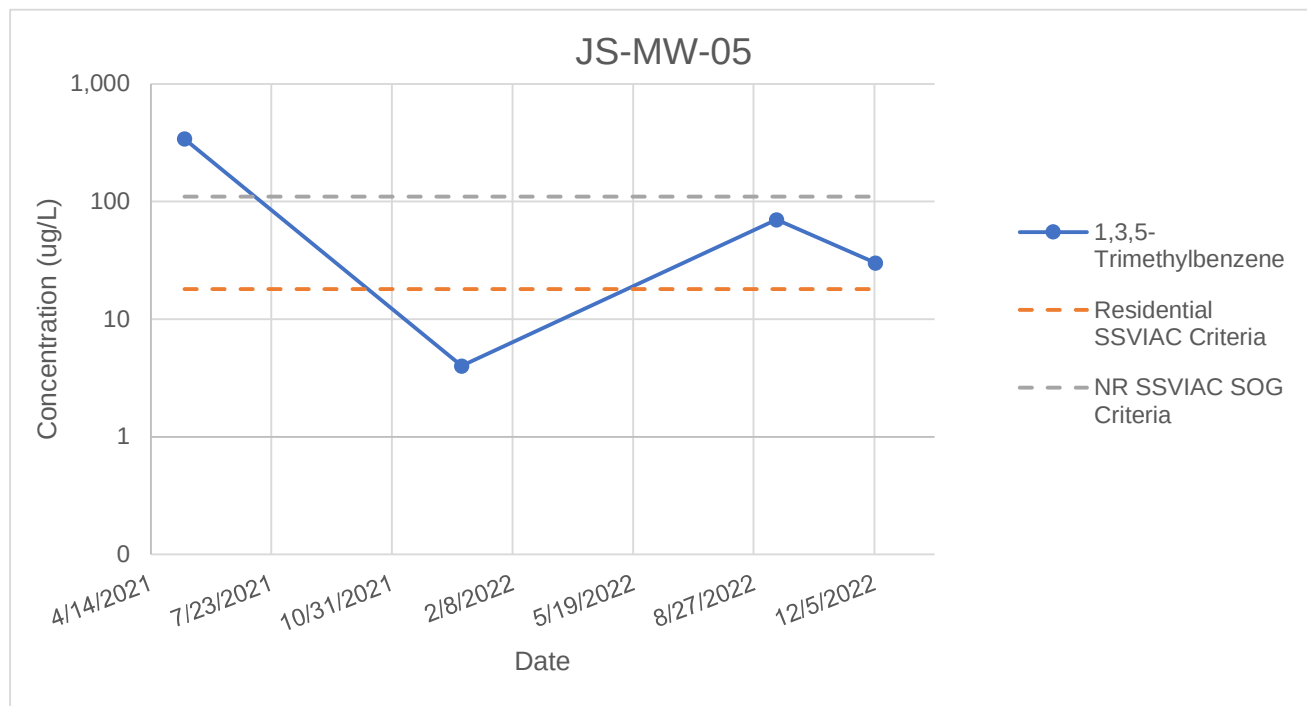
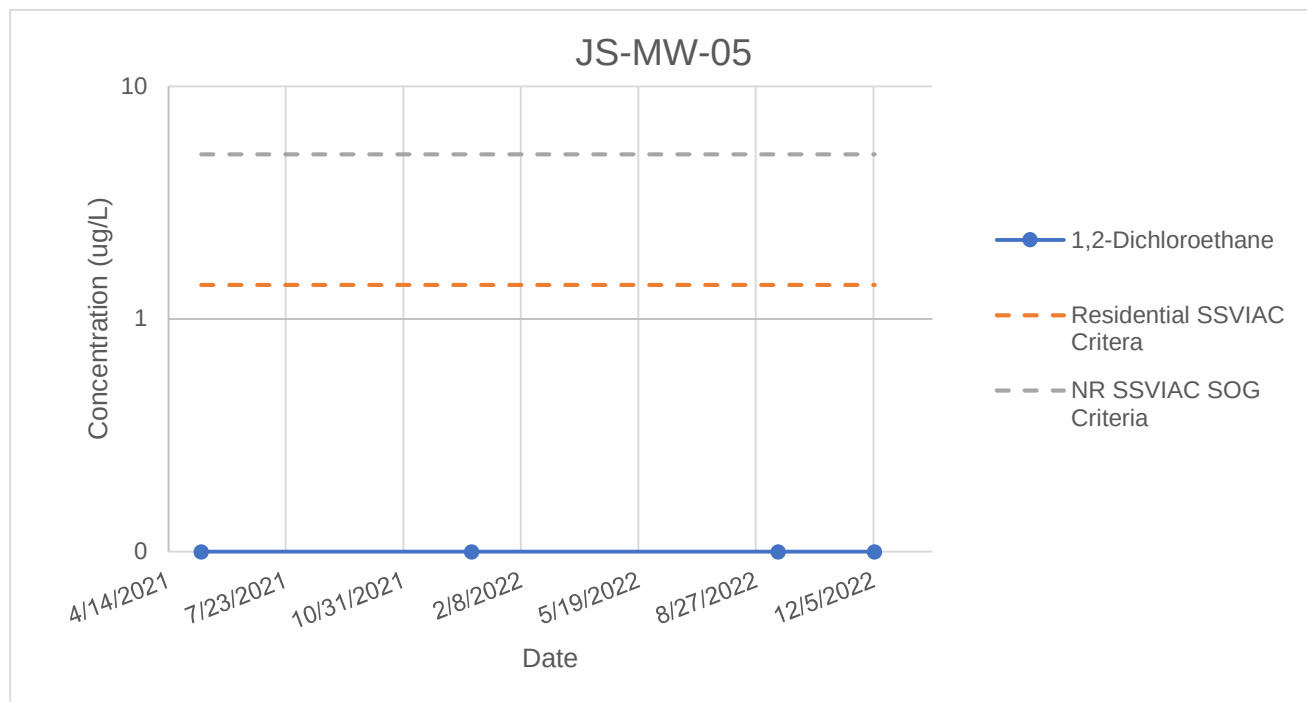
Appendix E

Groundwater Analytical Trend Graphs
Joslyn South Parcel
RACER Trust Pontiac North Campus



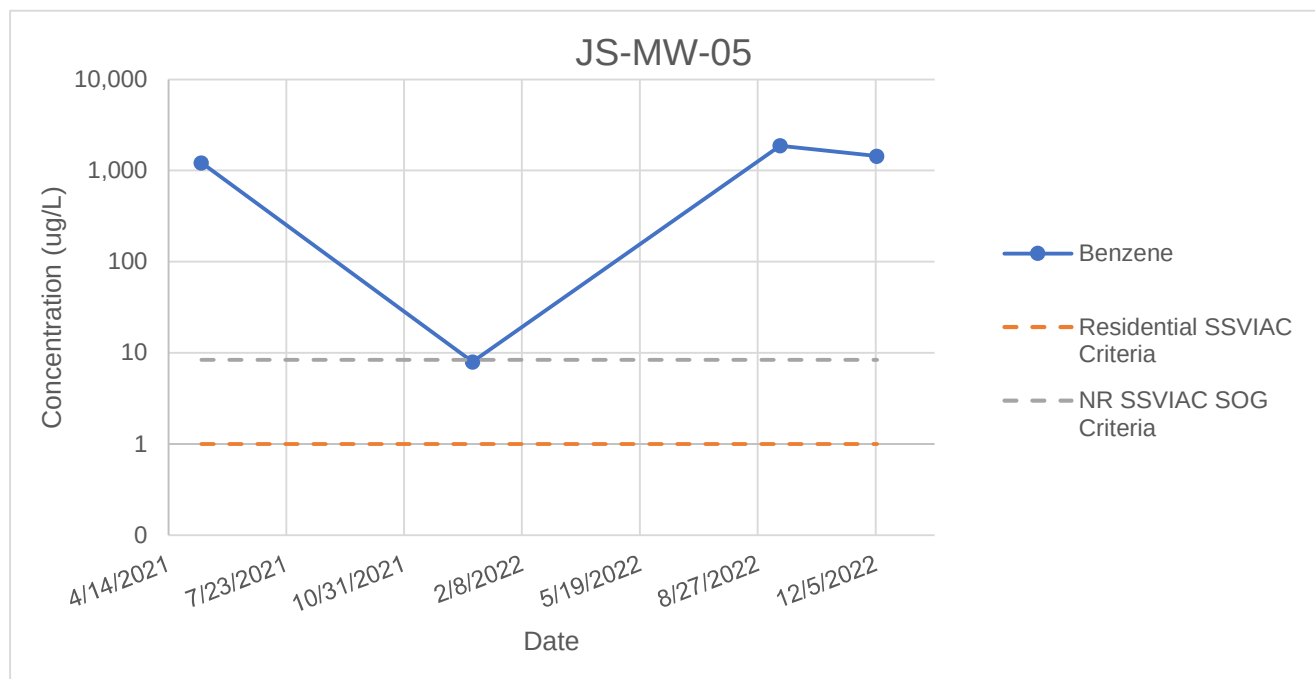
Appendix E

Groundwater Analytical Trend Graphs
Joslyn South Parcel
RACER Trust Pontiac North Campus



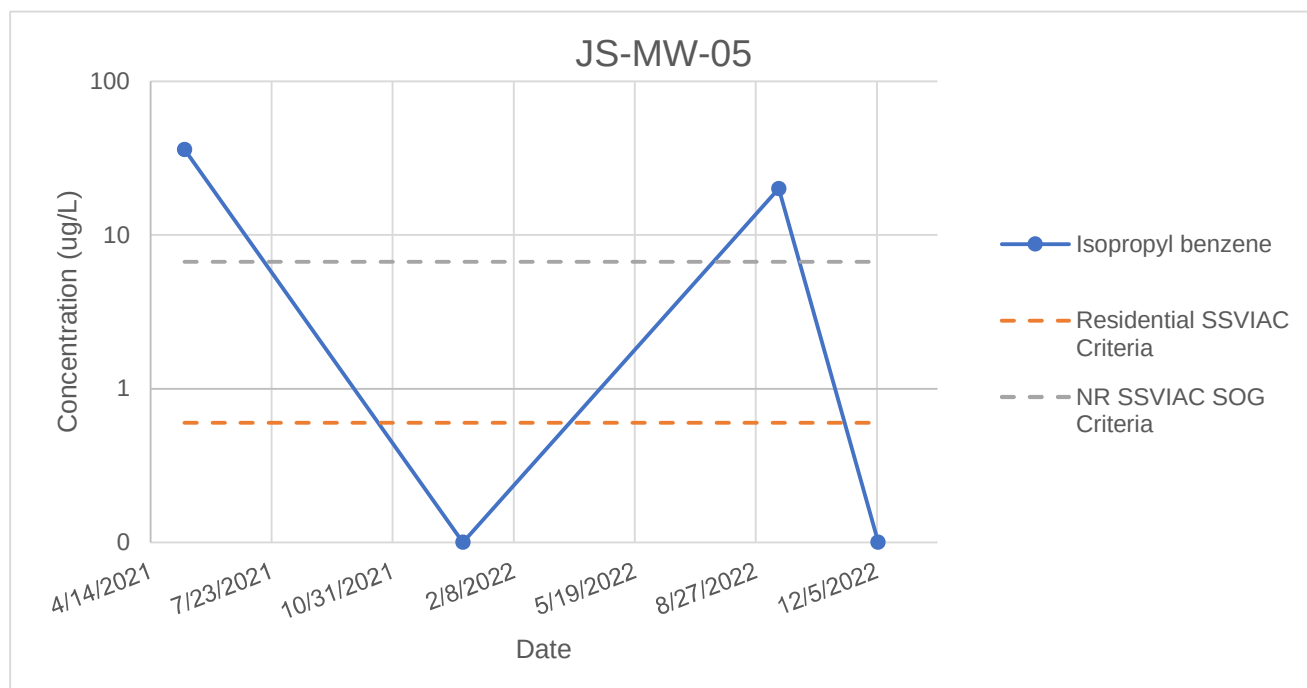
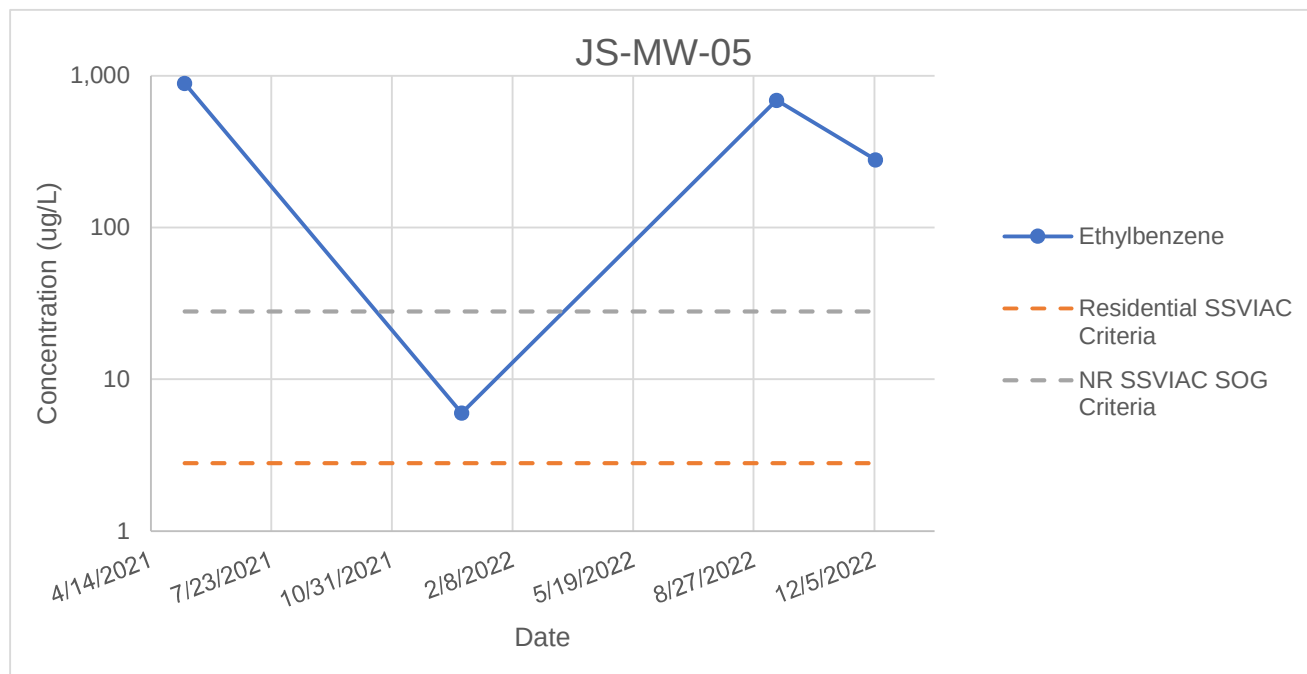
Appendix E

Groundwater Analytical Trend Graphs
Joslyn South Parcel
RACER Trust Pontiac North Campus



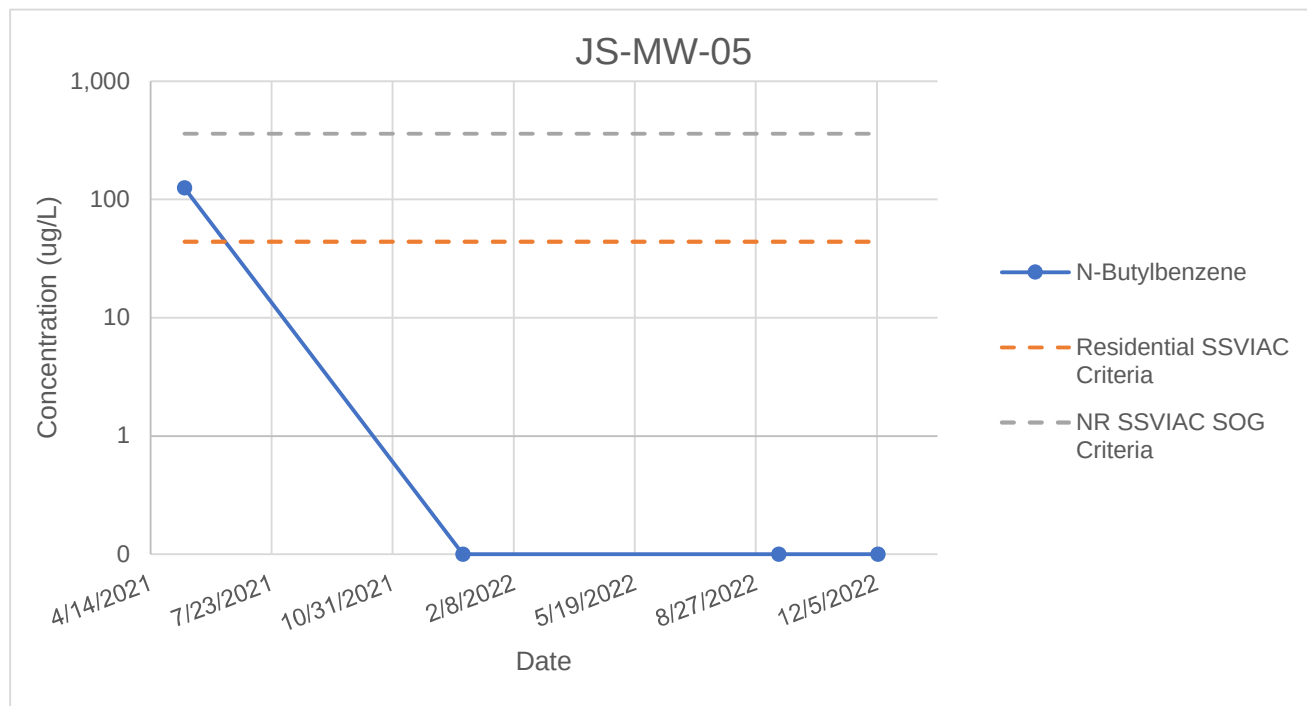
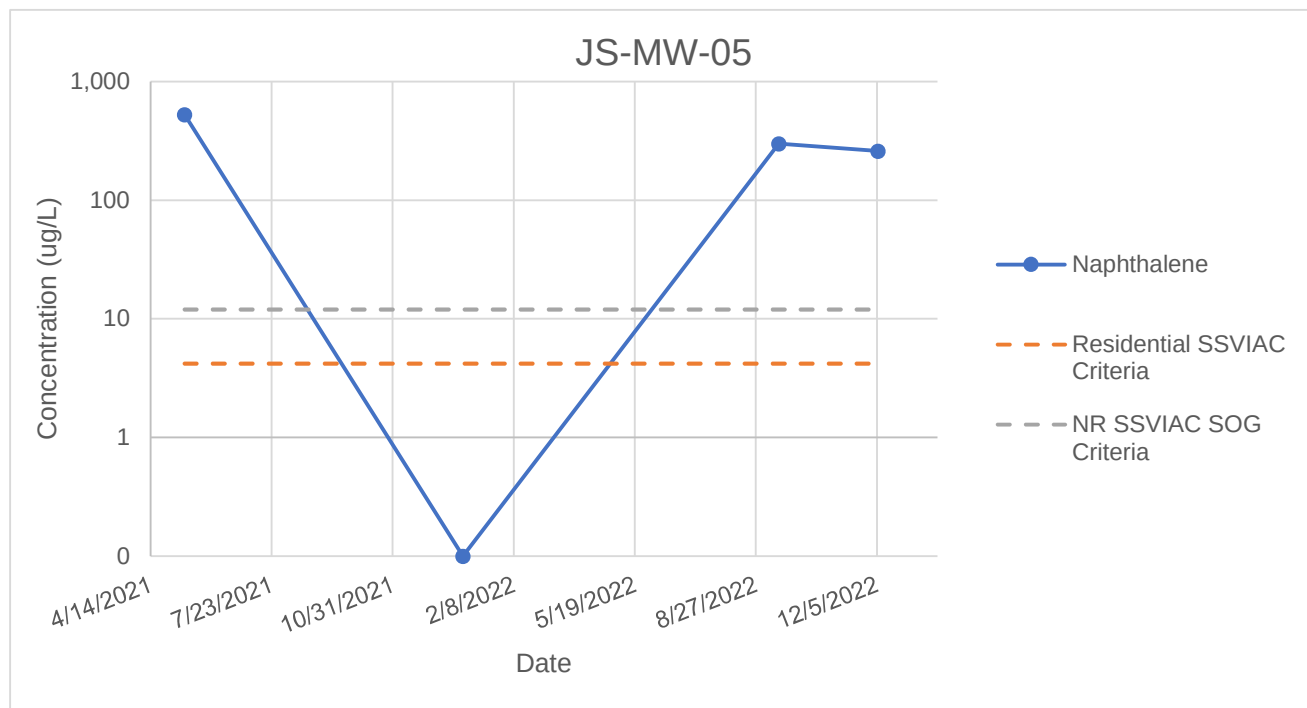
Appendix E

Groundwater Analytical Trend Graphs
Joslyn South Parcel
RACER Trust Pontiac North Campus



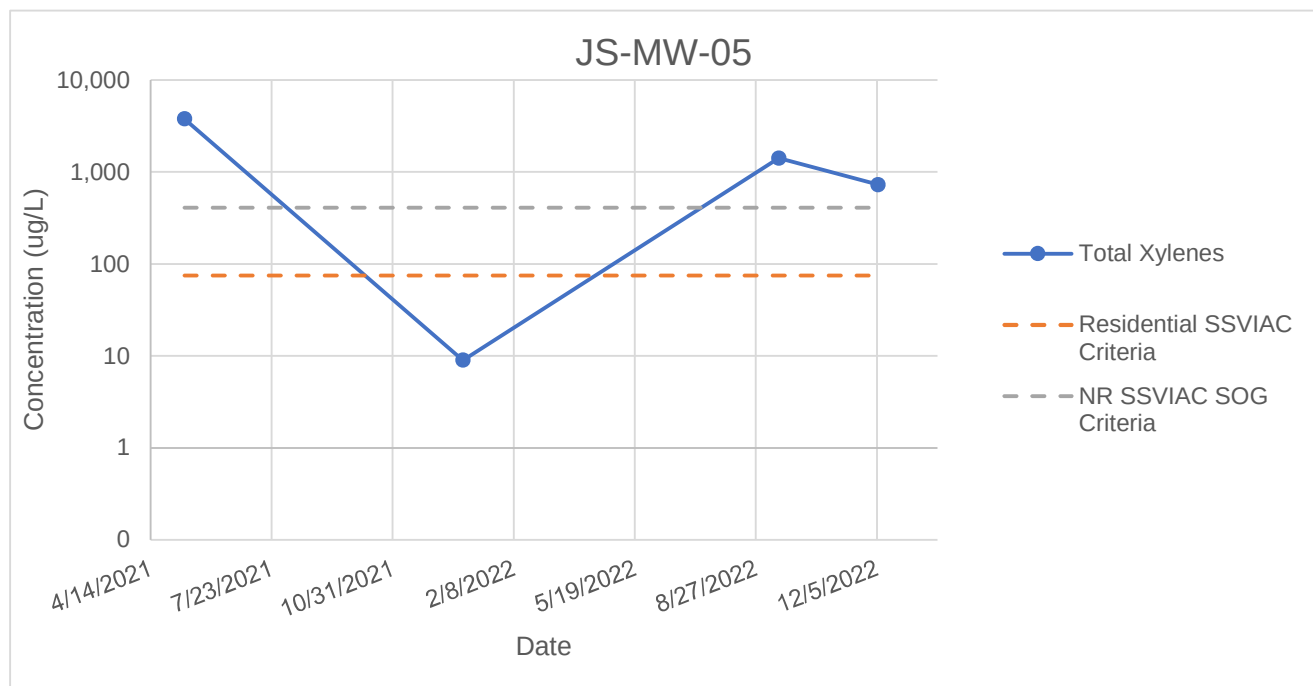
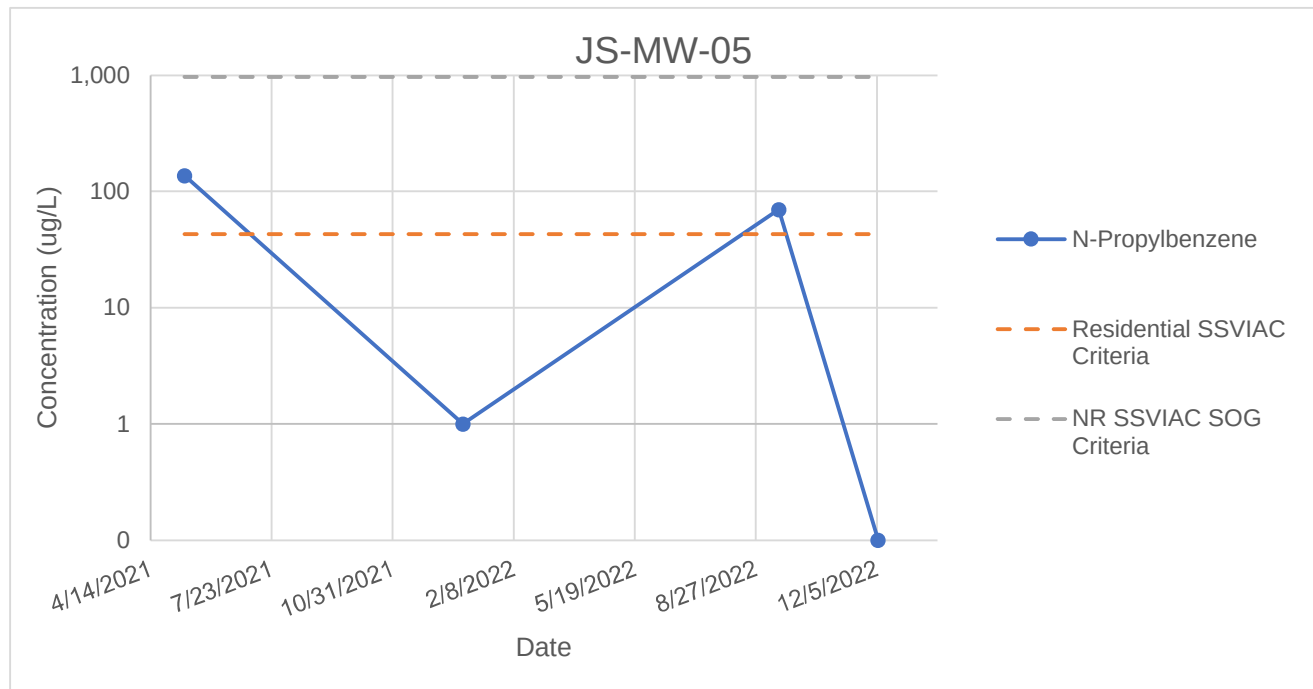
Appendix E

Groundwater Analytical Trend Graphs
Joslyn South Parcel
RACER Trust Pontiac North Campus



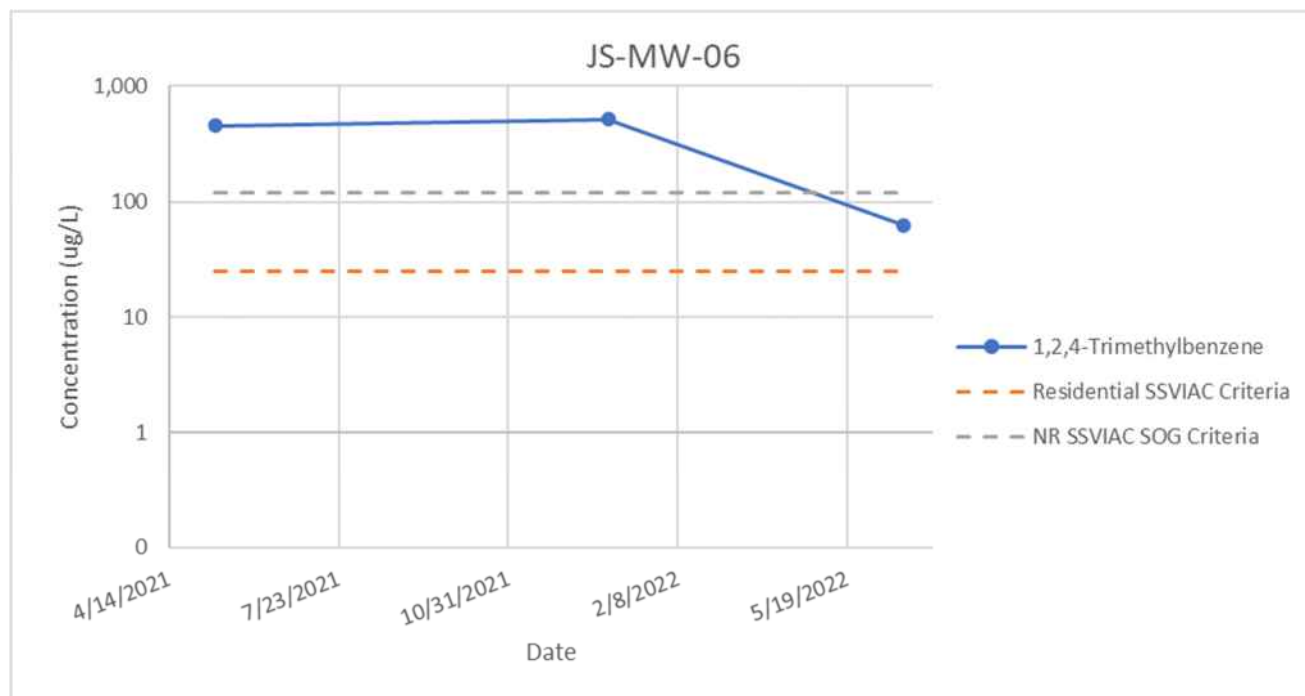
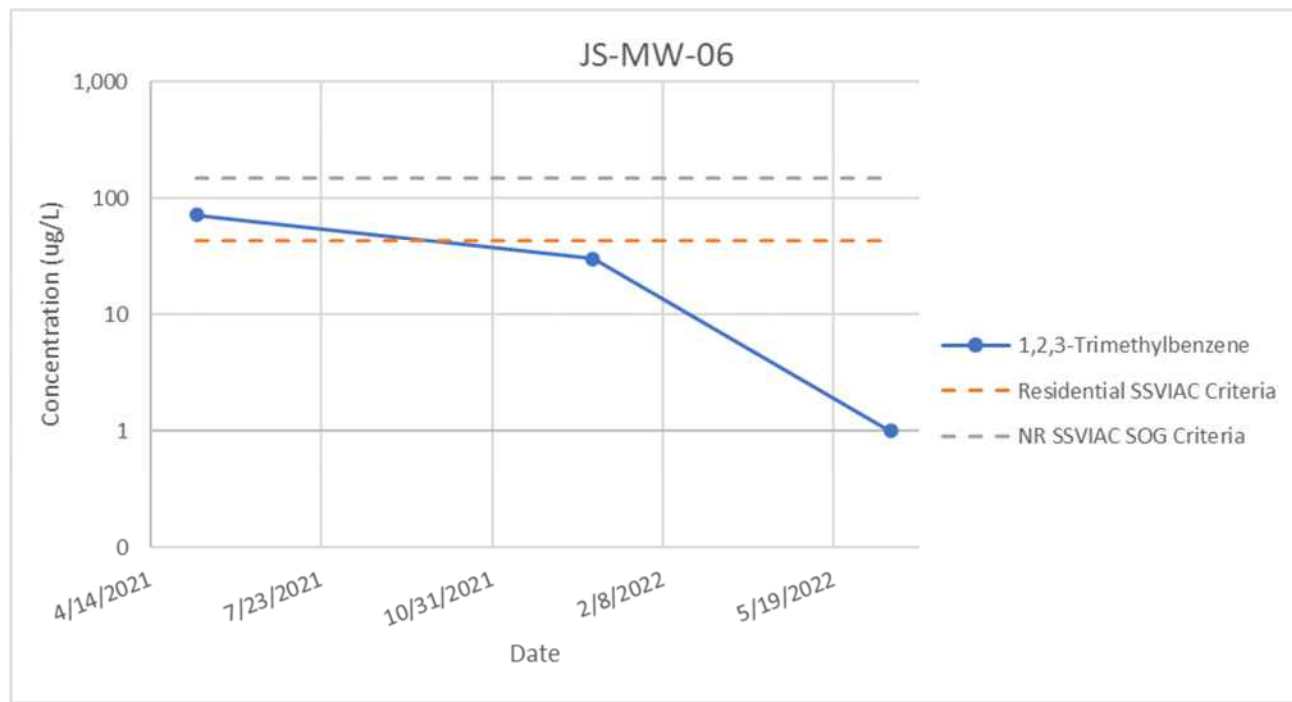
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Groundwater Analytical Trend Graphs
Joslyn South Parcel
RACER Trust Pontiac North Campus



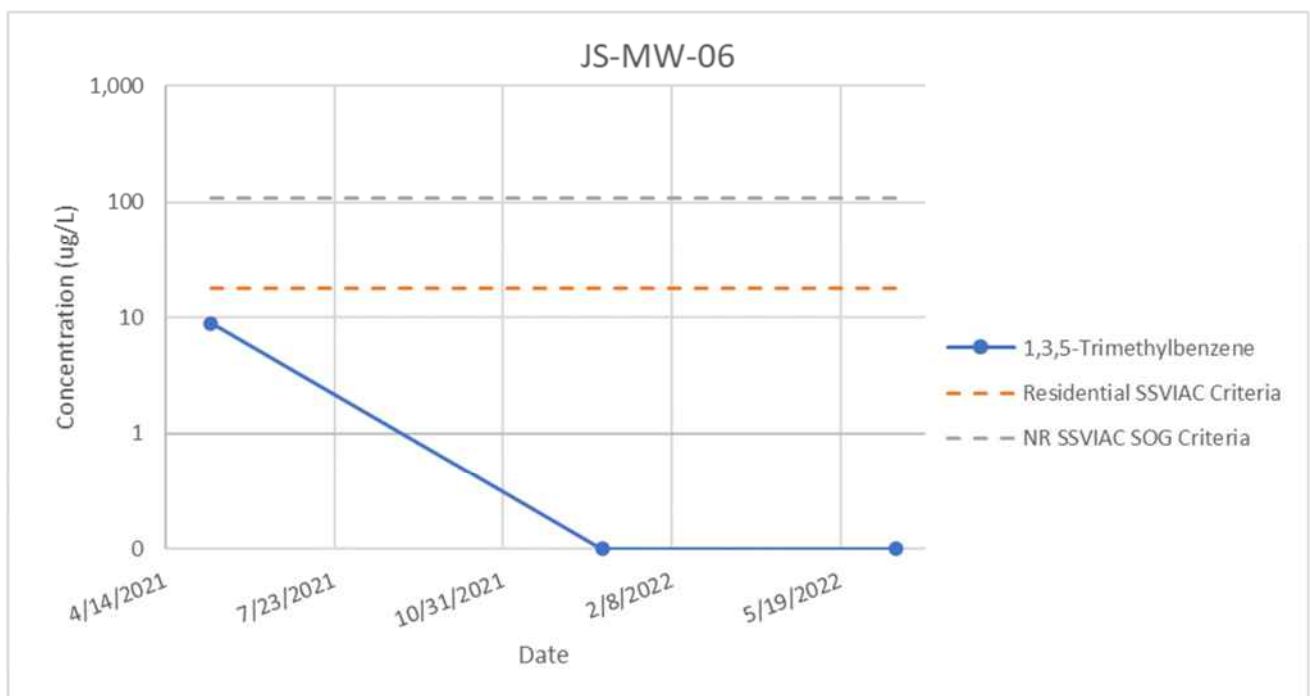
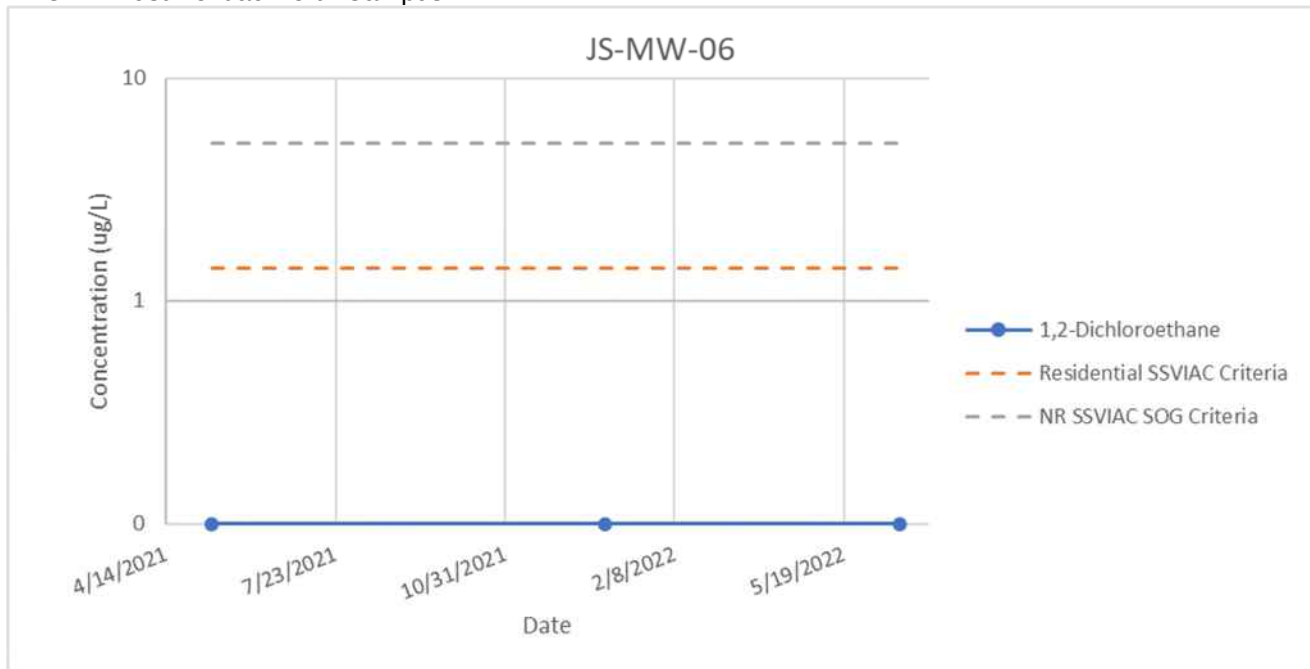
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Groundwater Analytical Trend Graphs
Joslyn South Parcel
RACER Trust Pontiac North Campus



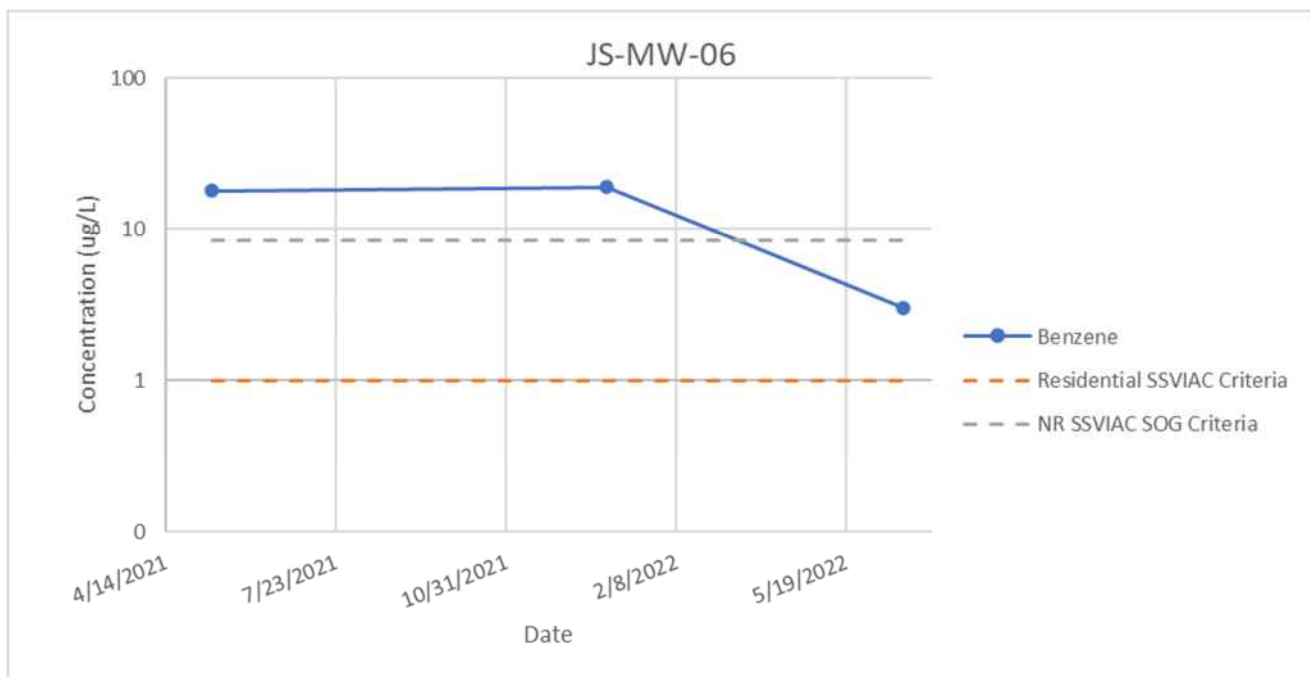
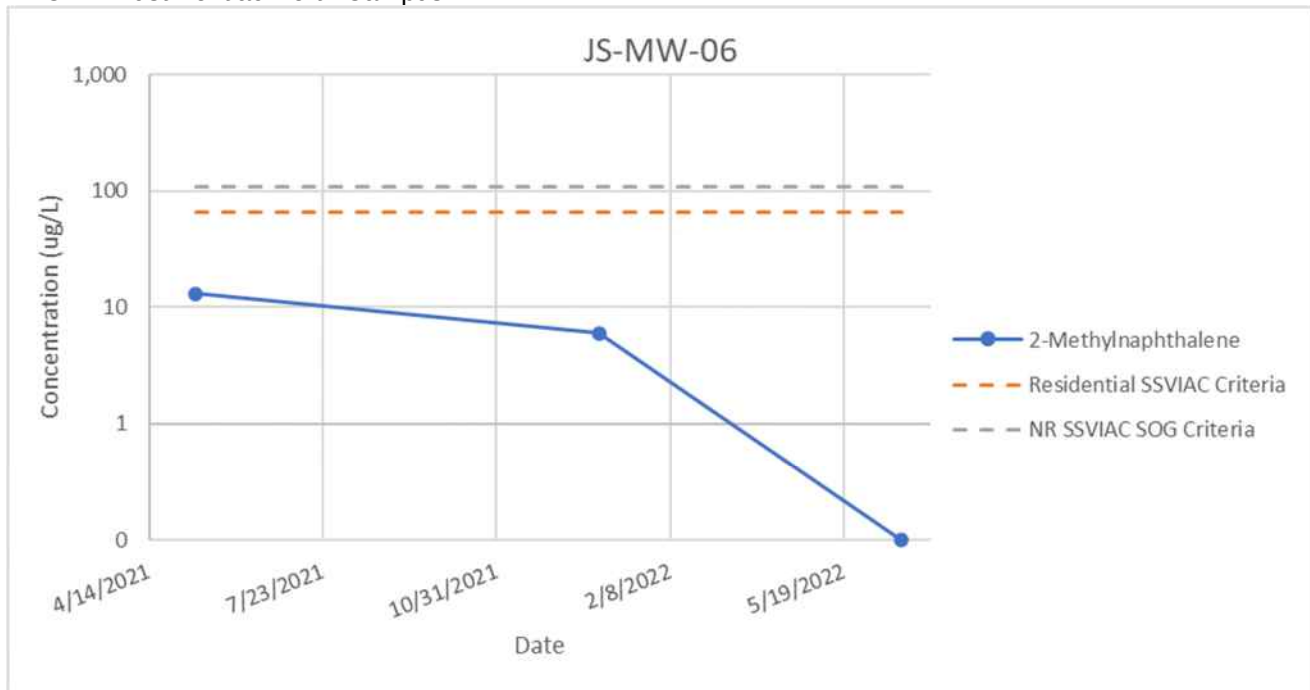
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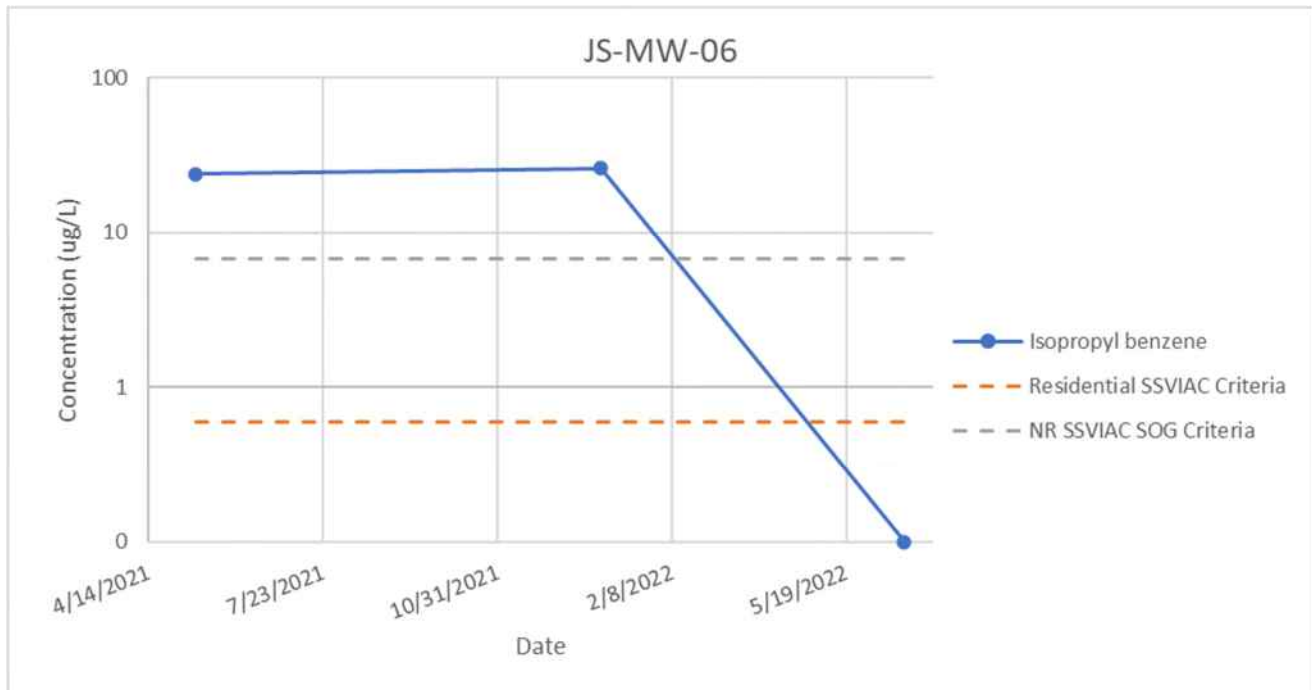
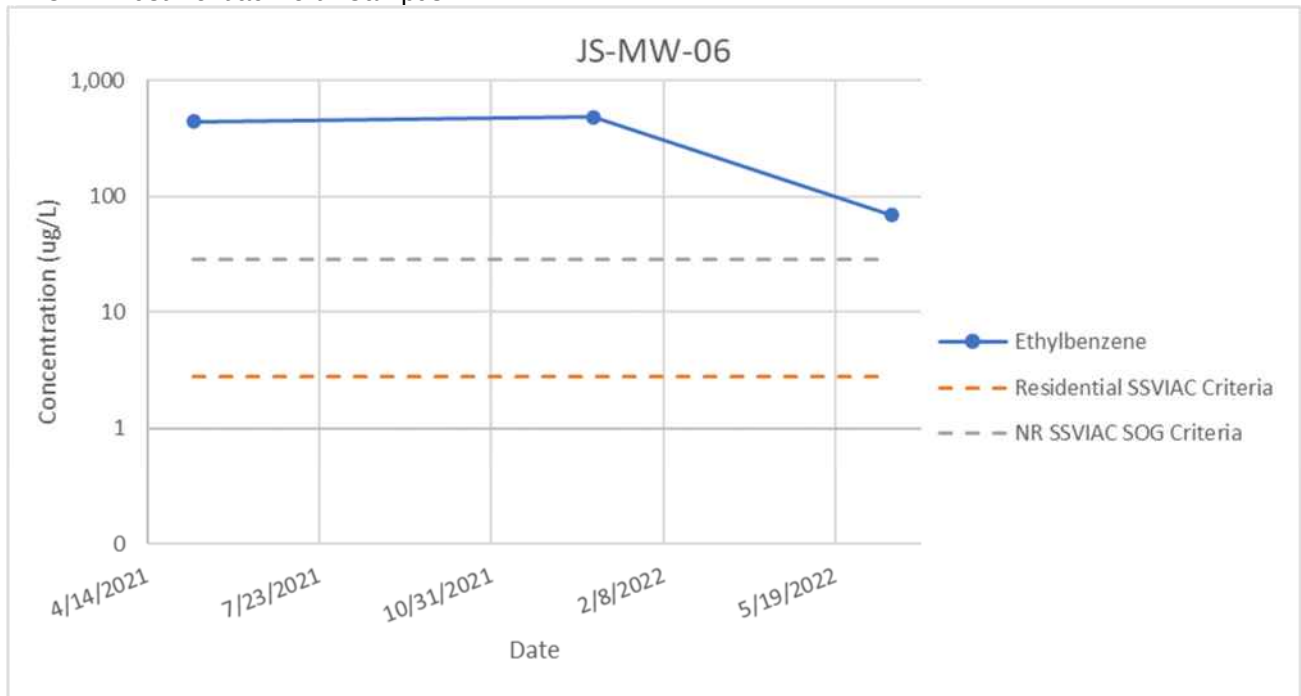
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Joslyn South Parcel
RACER Trust Pontiac North Campus



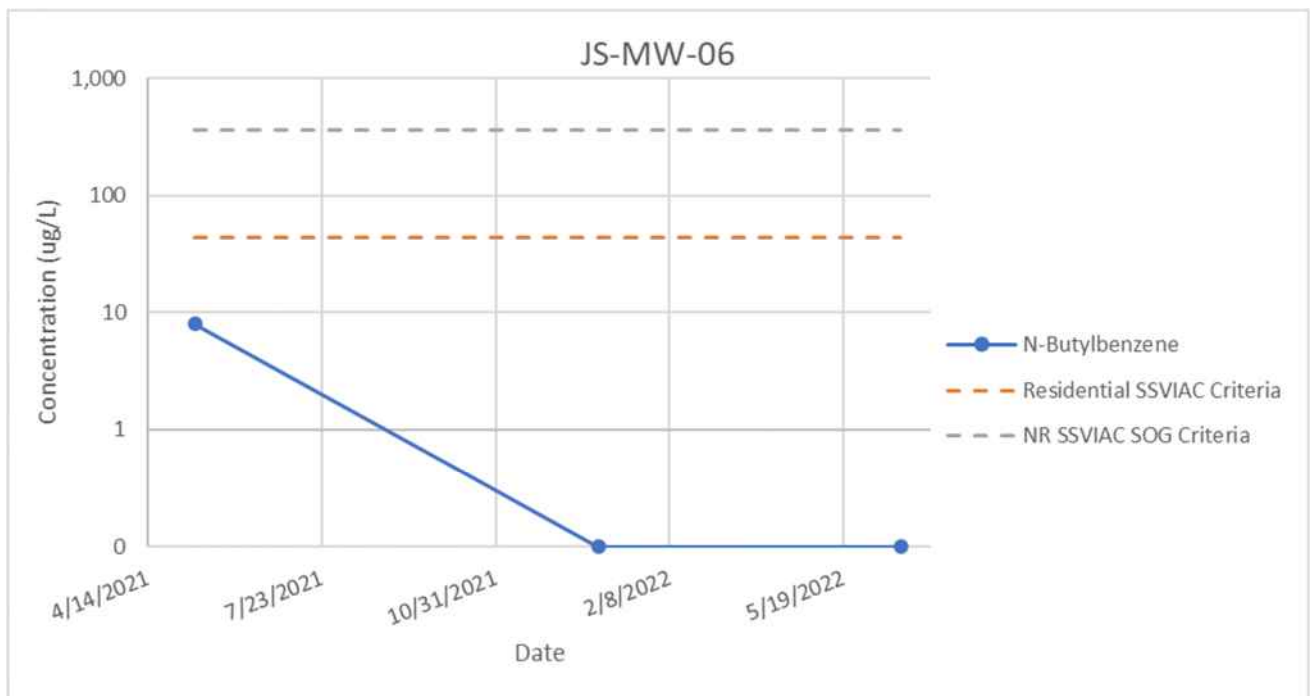
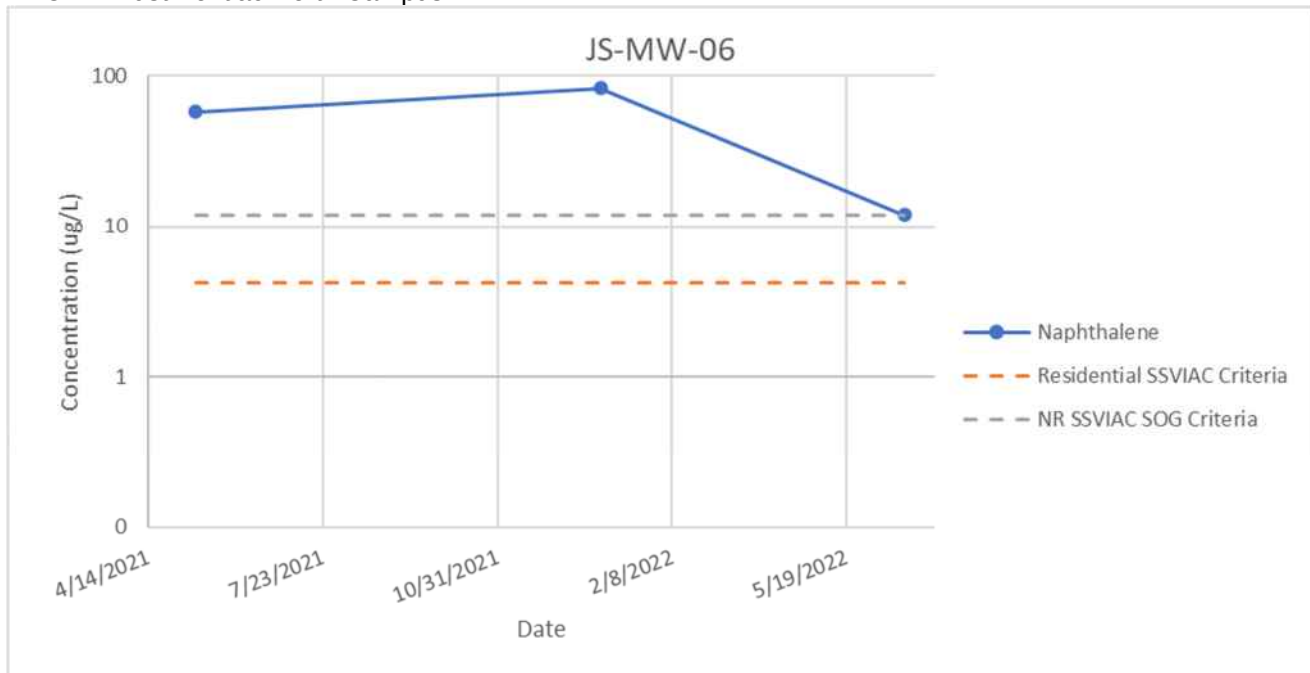
Appendix E

Groundwater Analytical Trend Graphs
Joslyn South Parcel
RACER Trust Pontiac North Campus



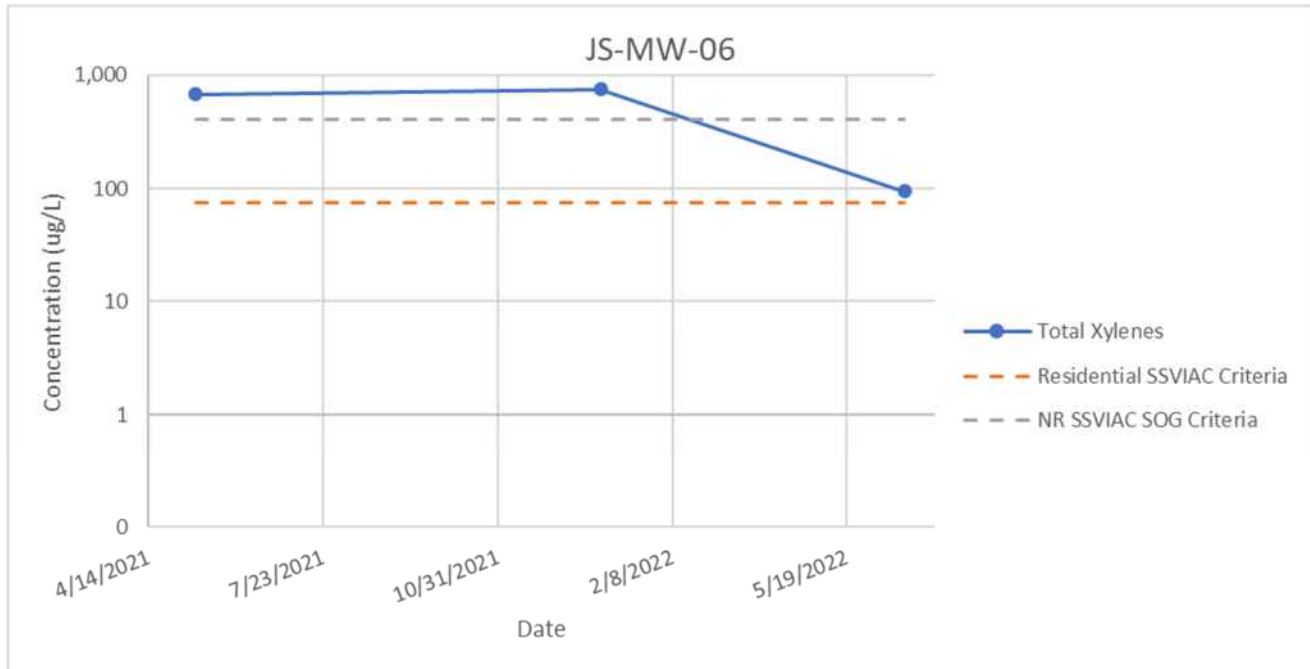
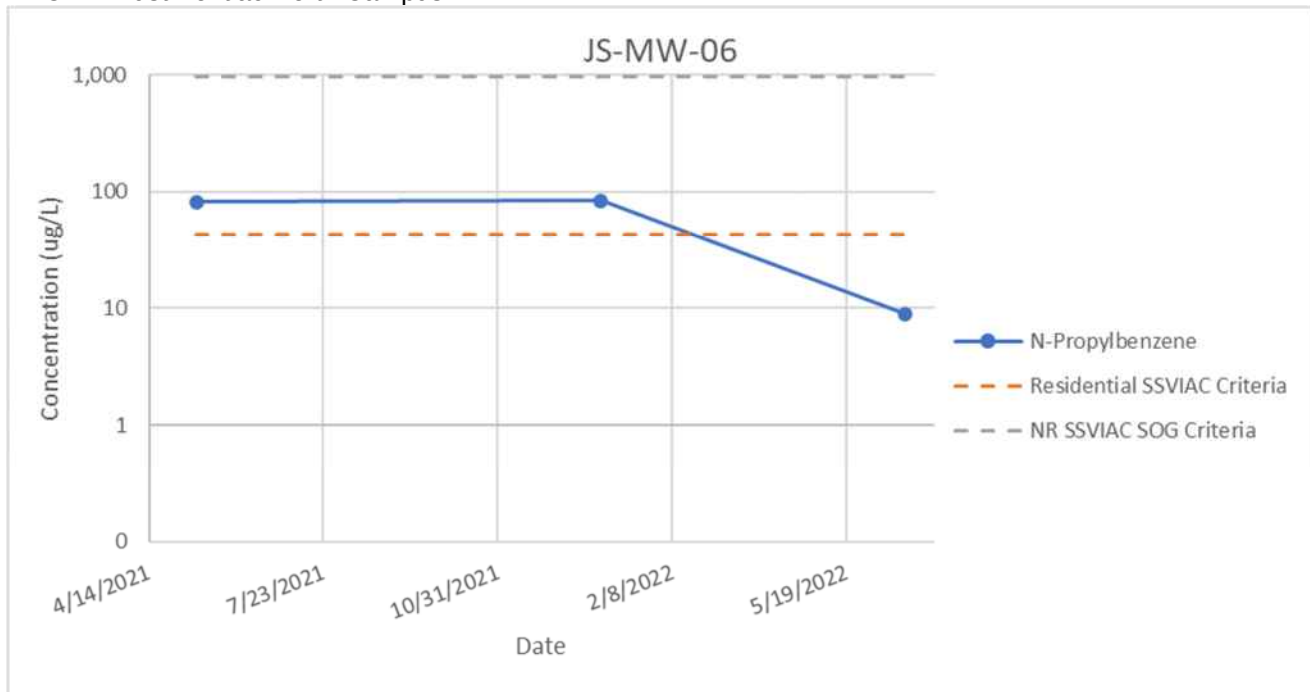
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Joslyn South Parcel
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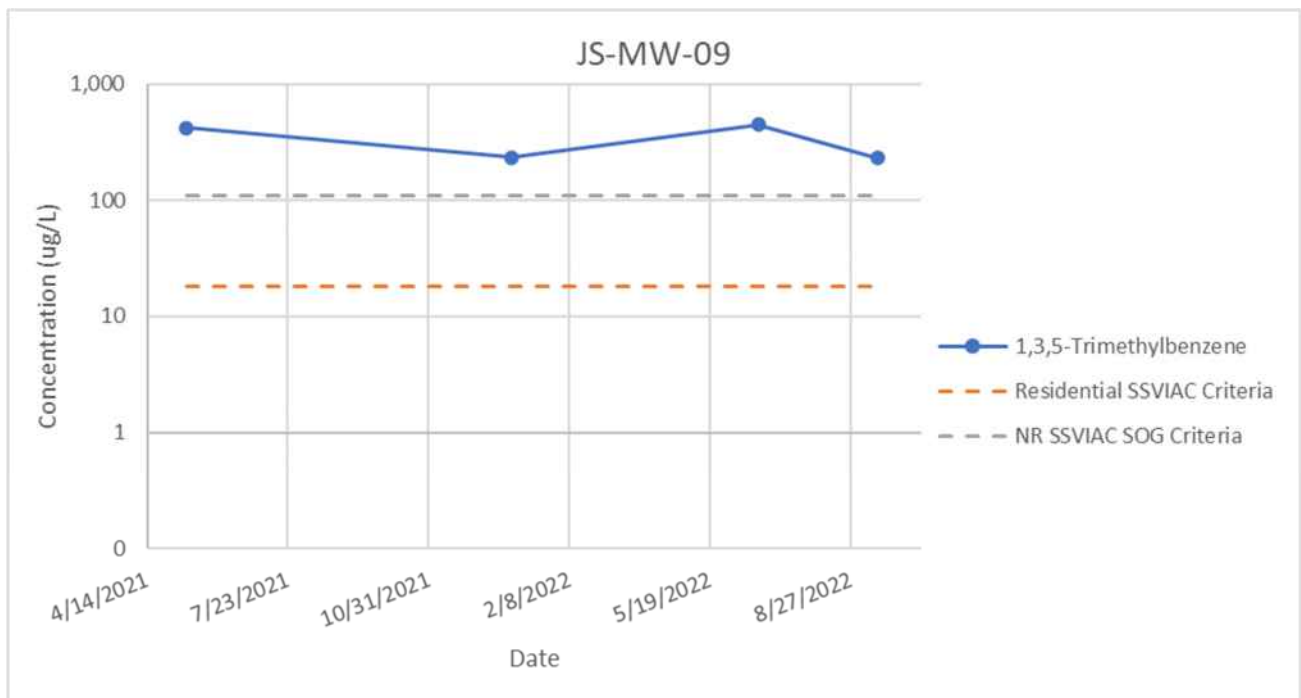
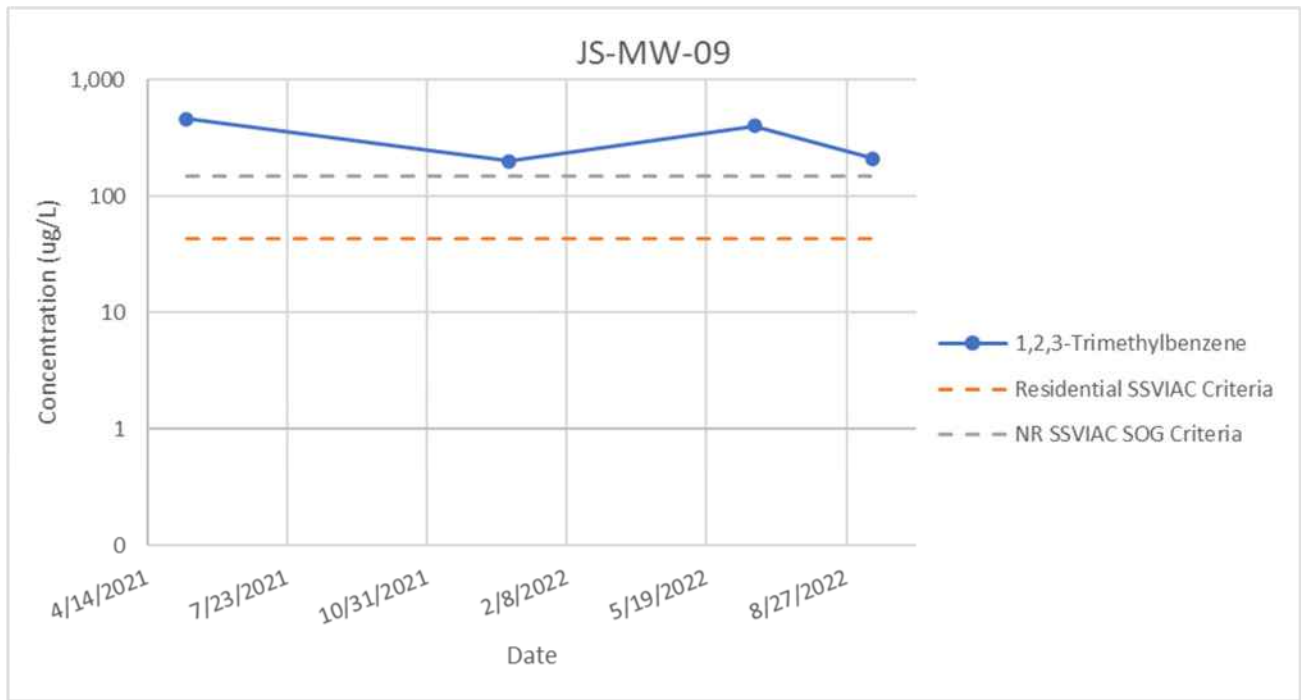
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Joslyn South Parcel
RACER Trust Pontiac North Campus



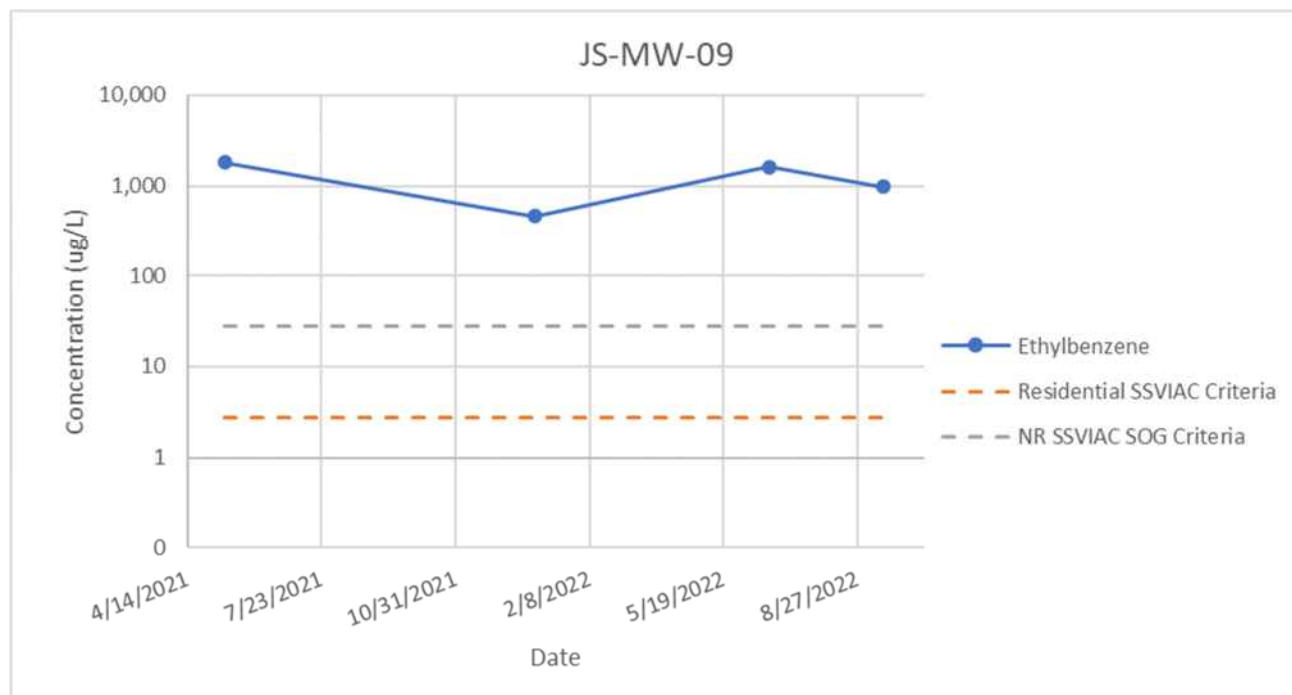
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Joslyn South Parcel
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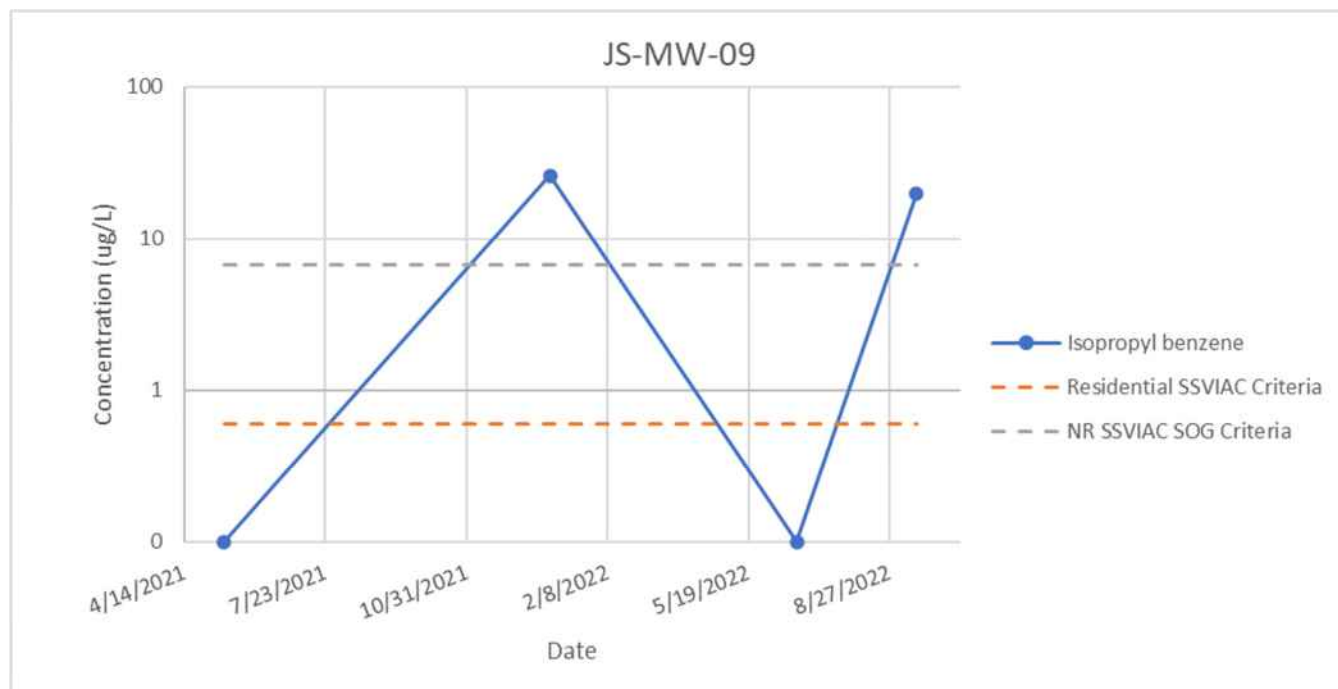
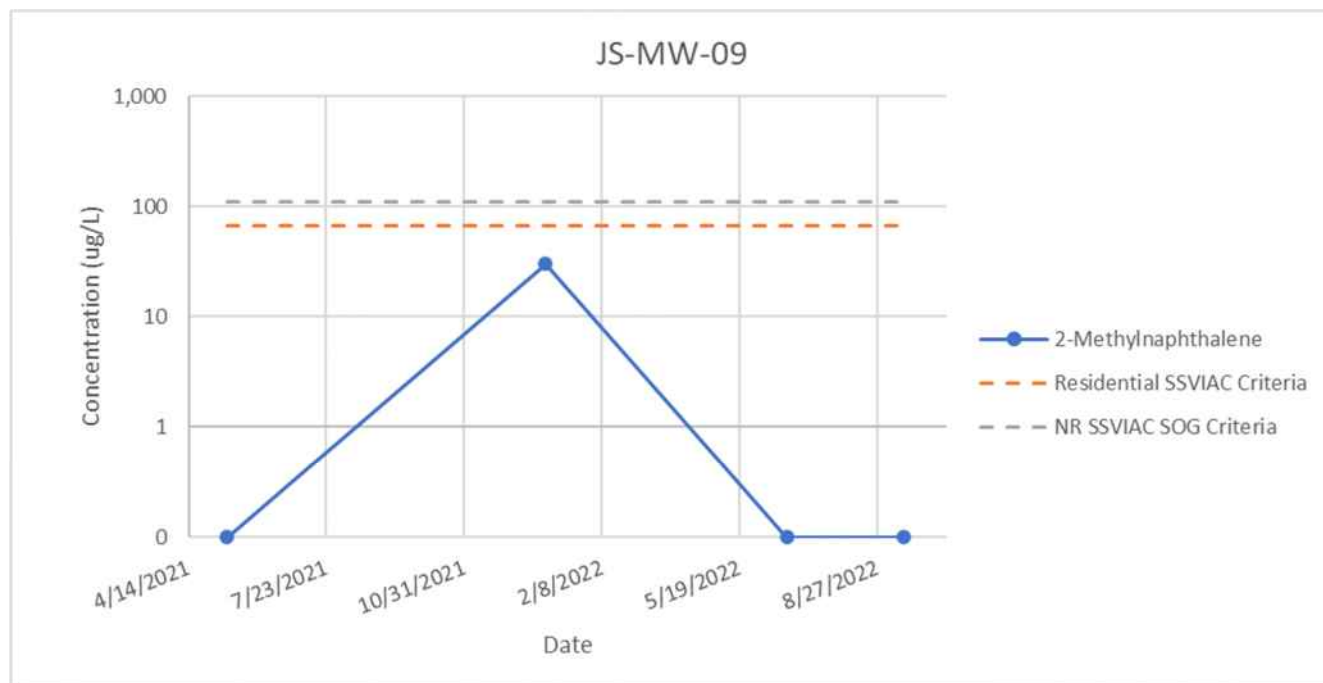
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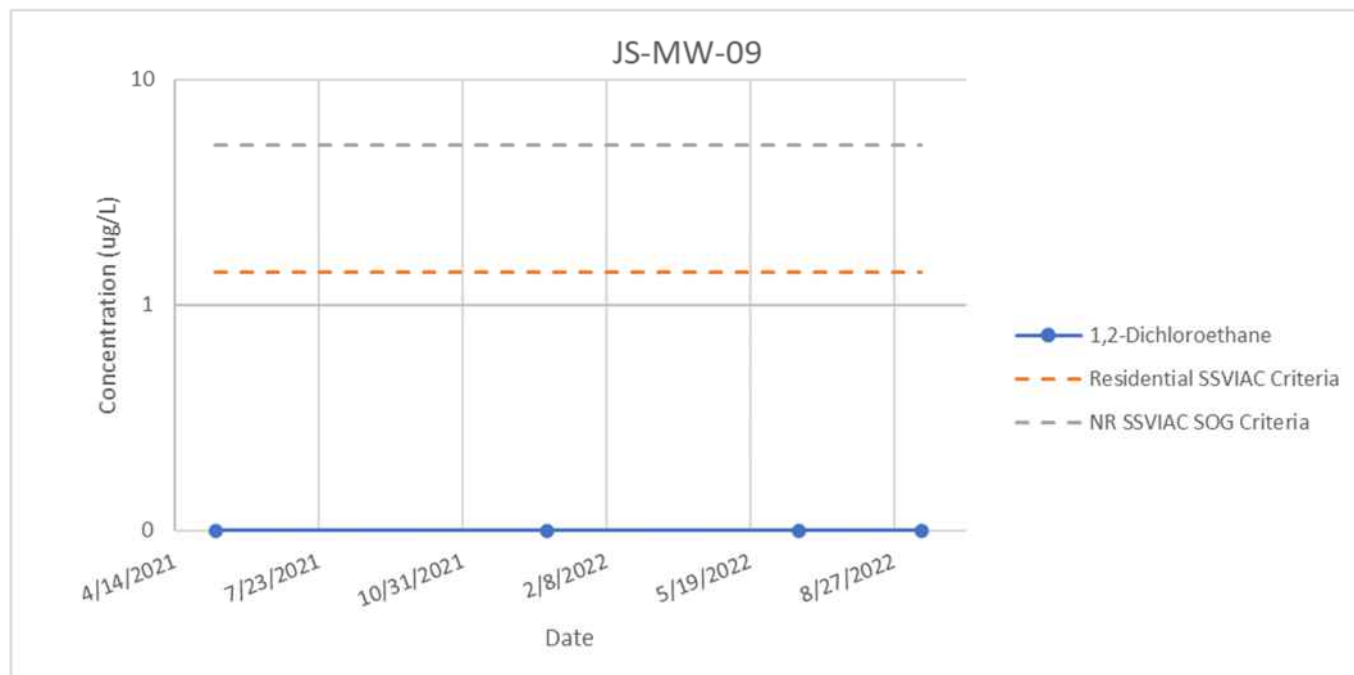
Appendix E

Groundwater Analytical Trend Graphs
Joslyn South Parcel
RACER Trust Pontiac North Campus



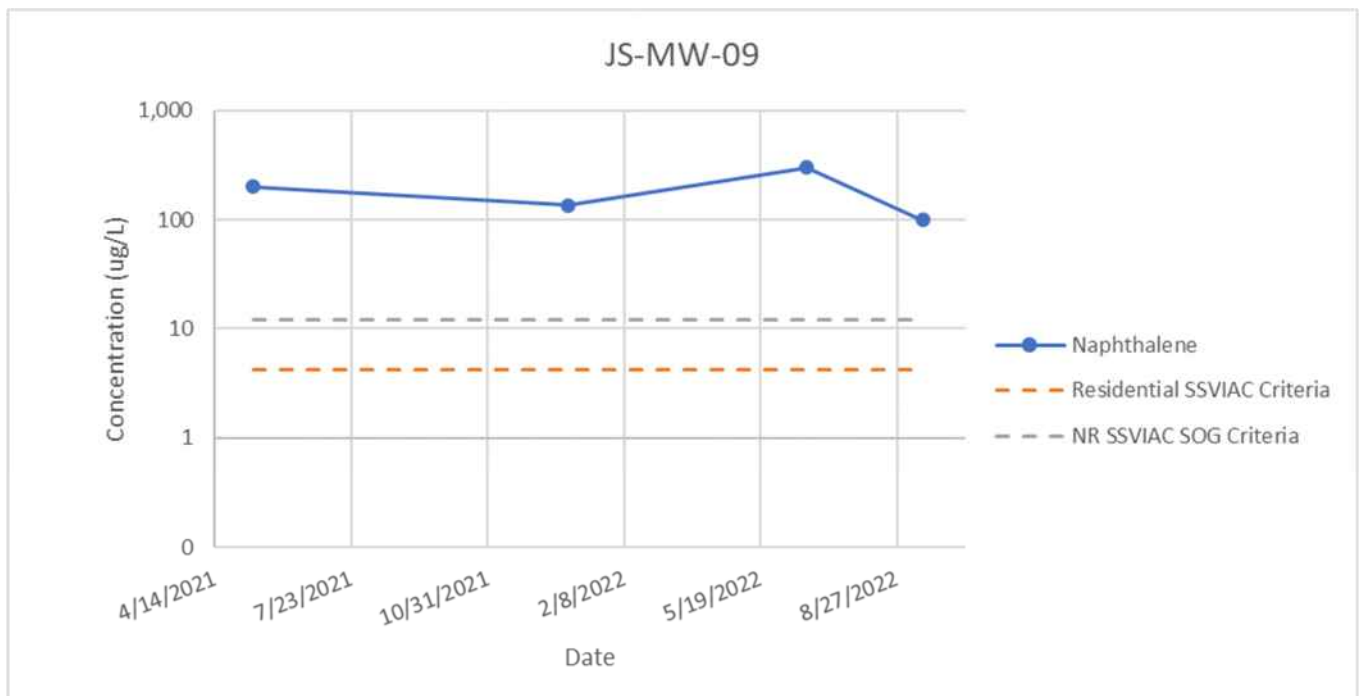
Appendix E

Groundwater Analytical Trend Graphs
Joslyn South Parcel
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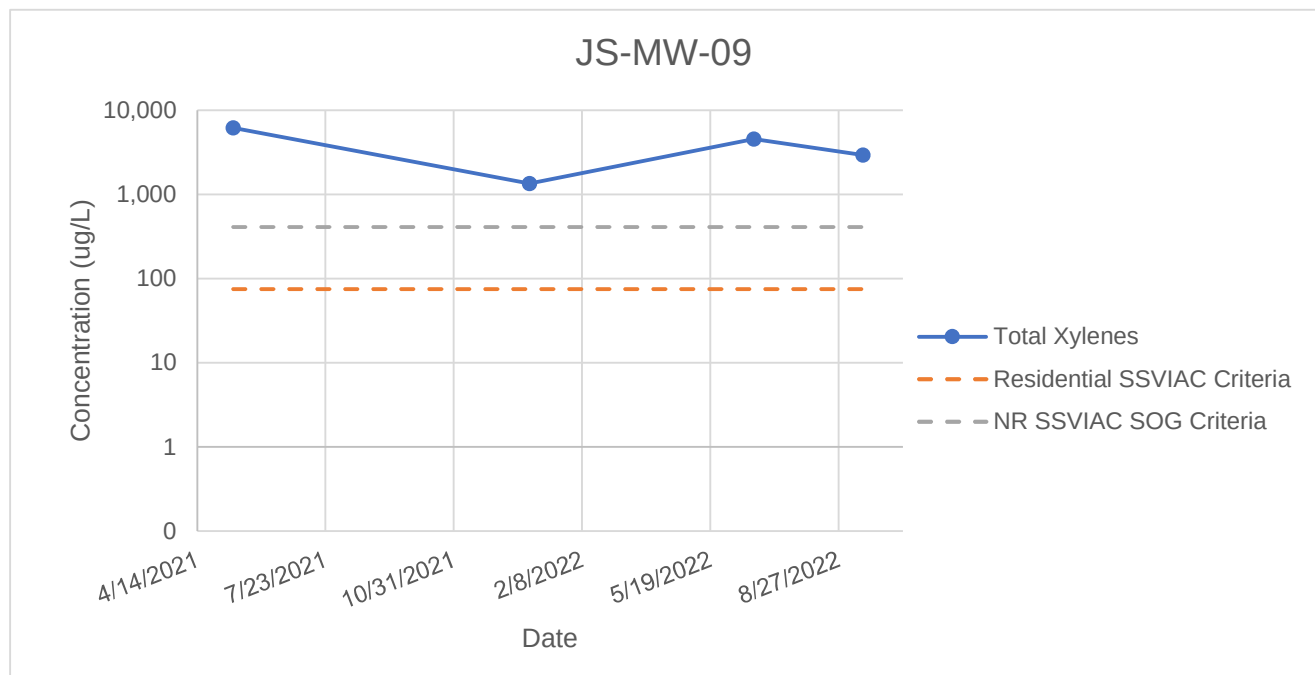
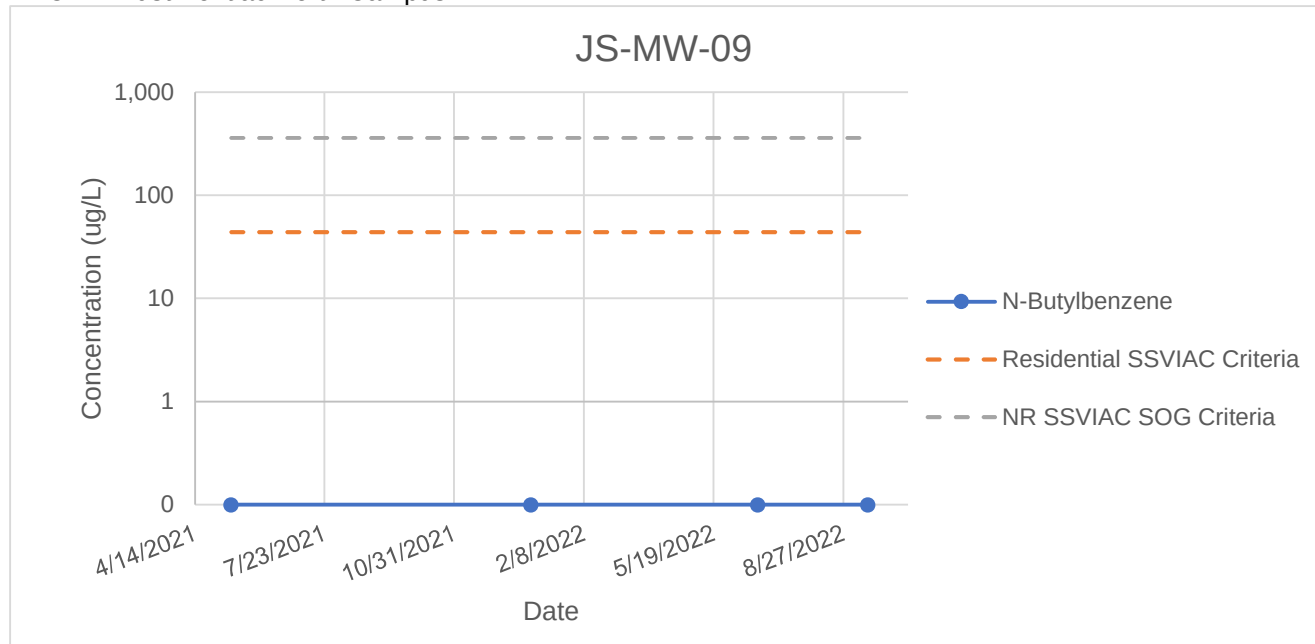
Appendix E

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Joslyn South Parcel
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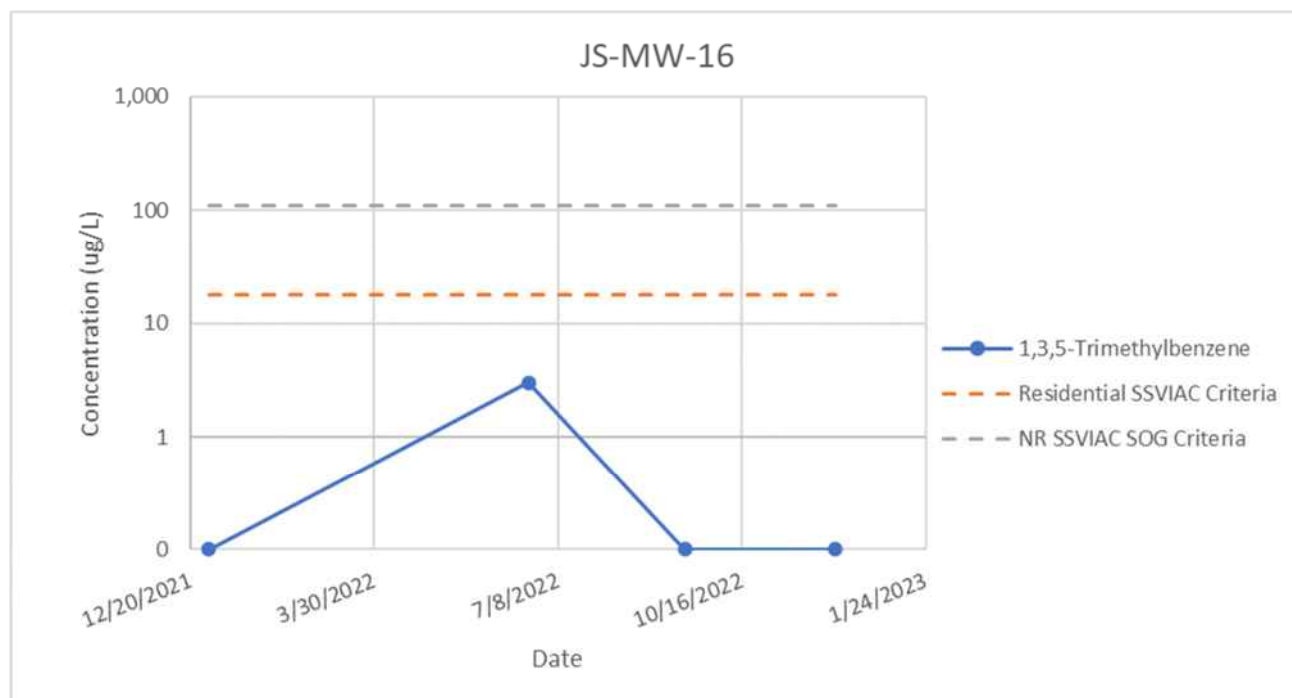
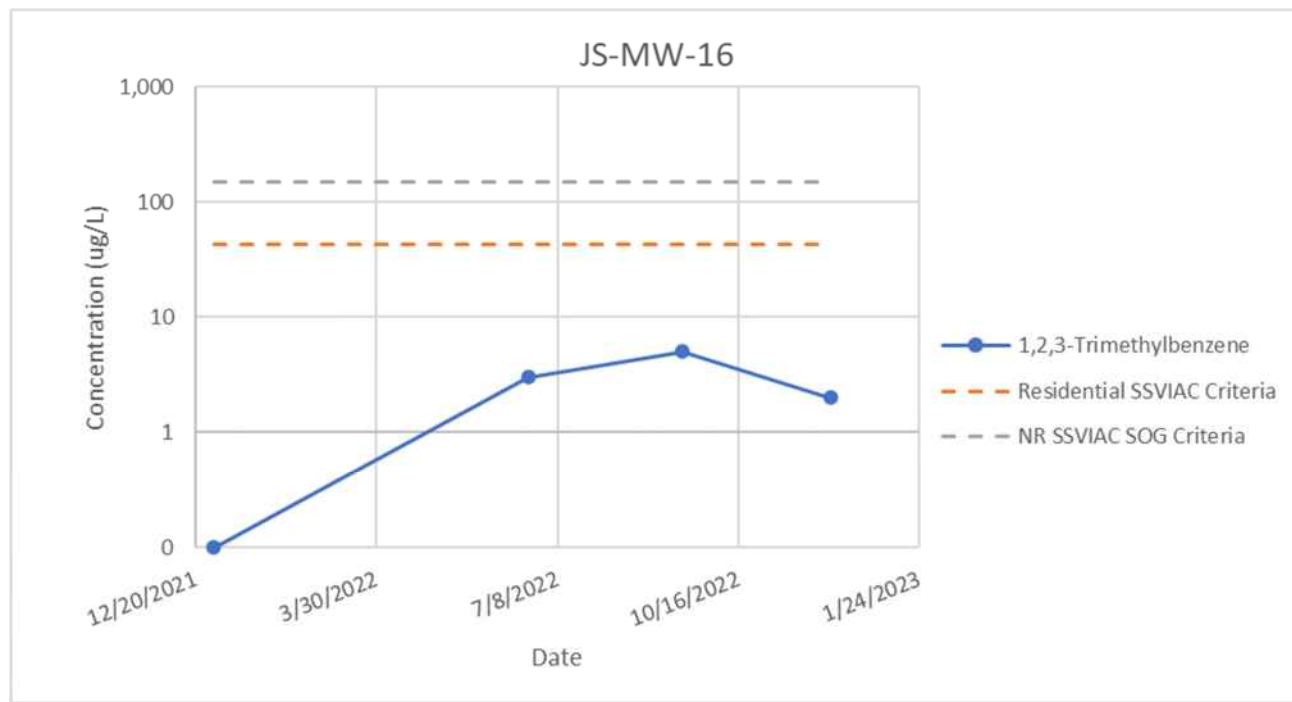
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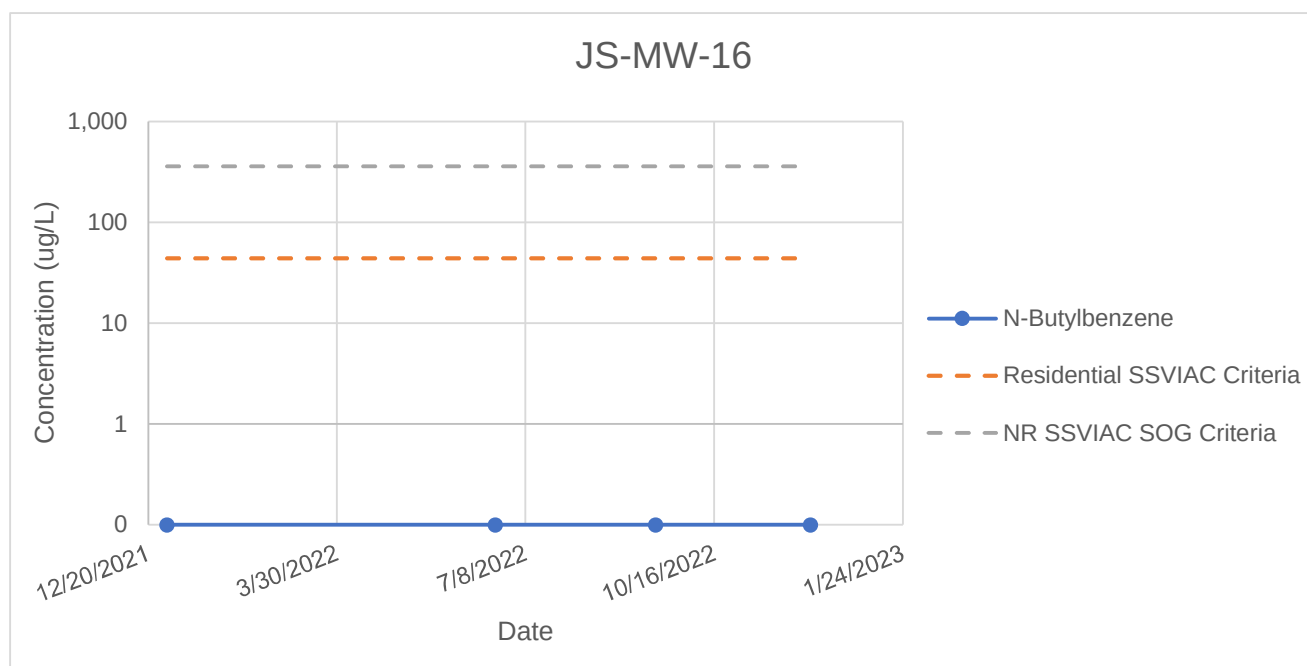
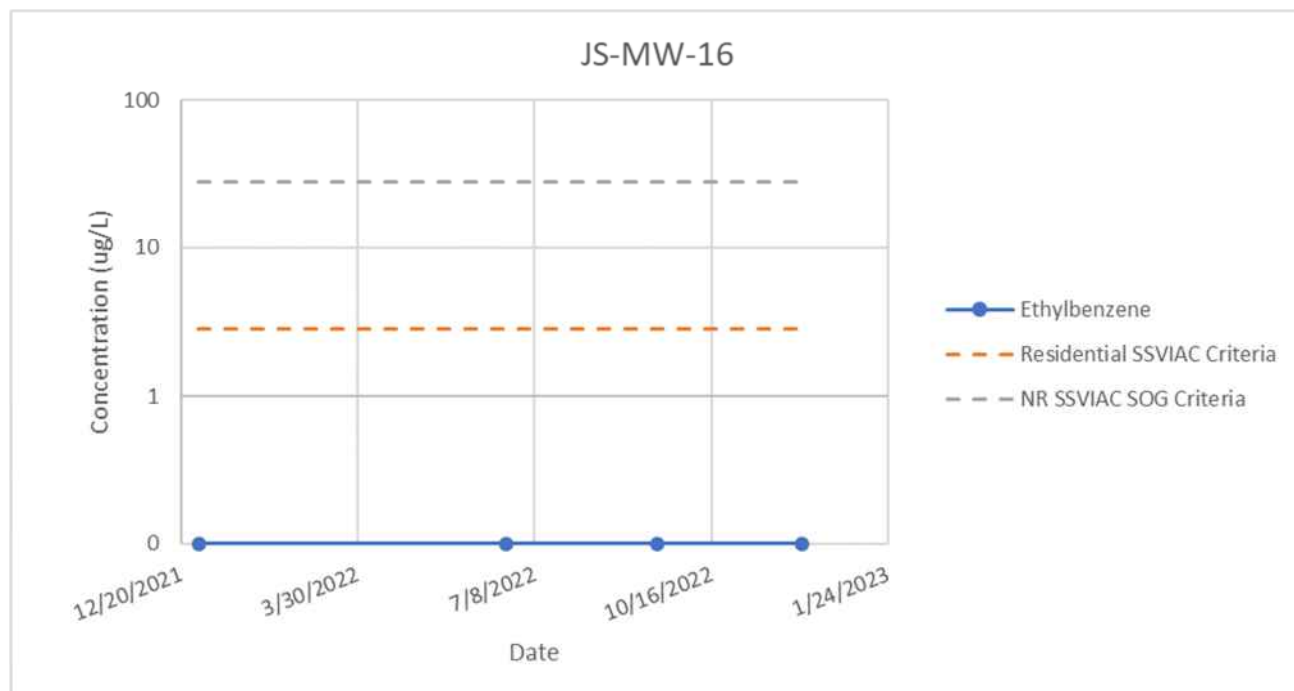
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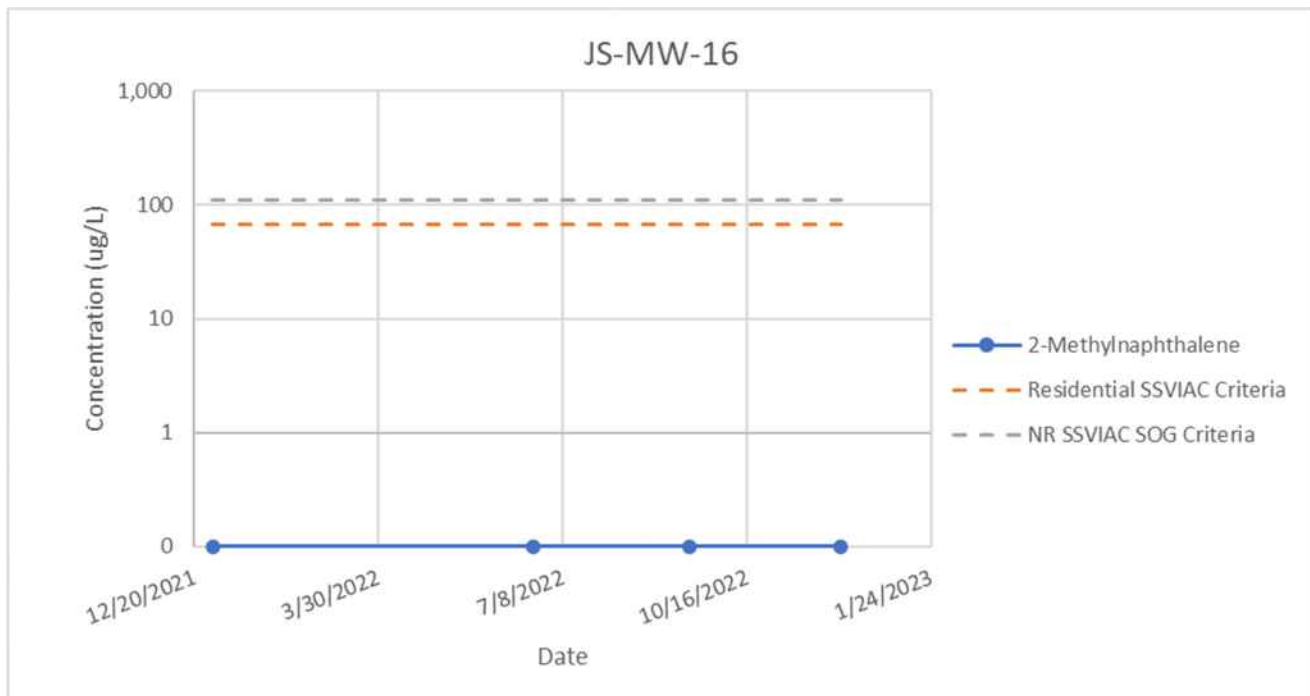
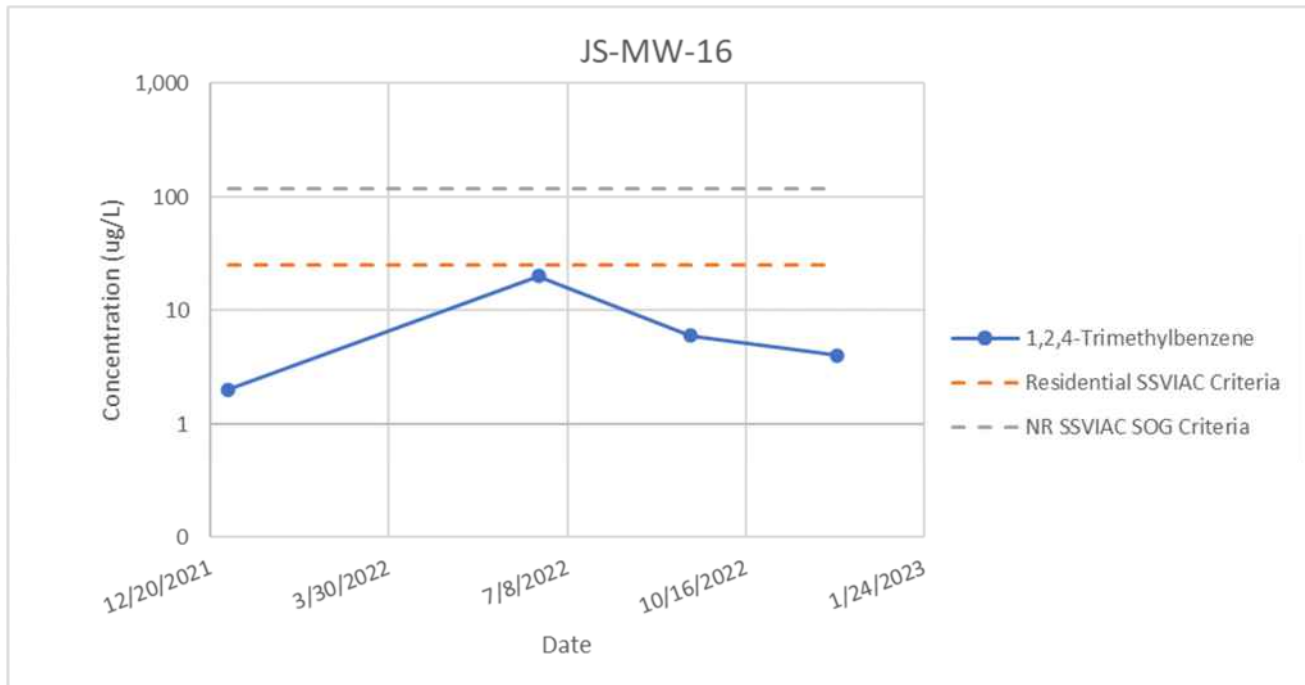
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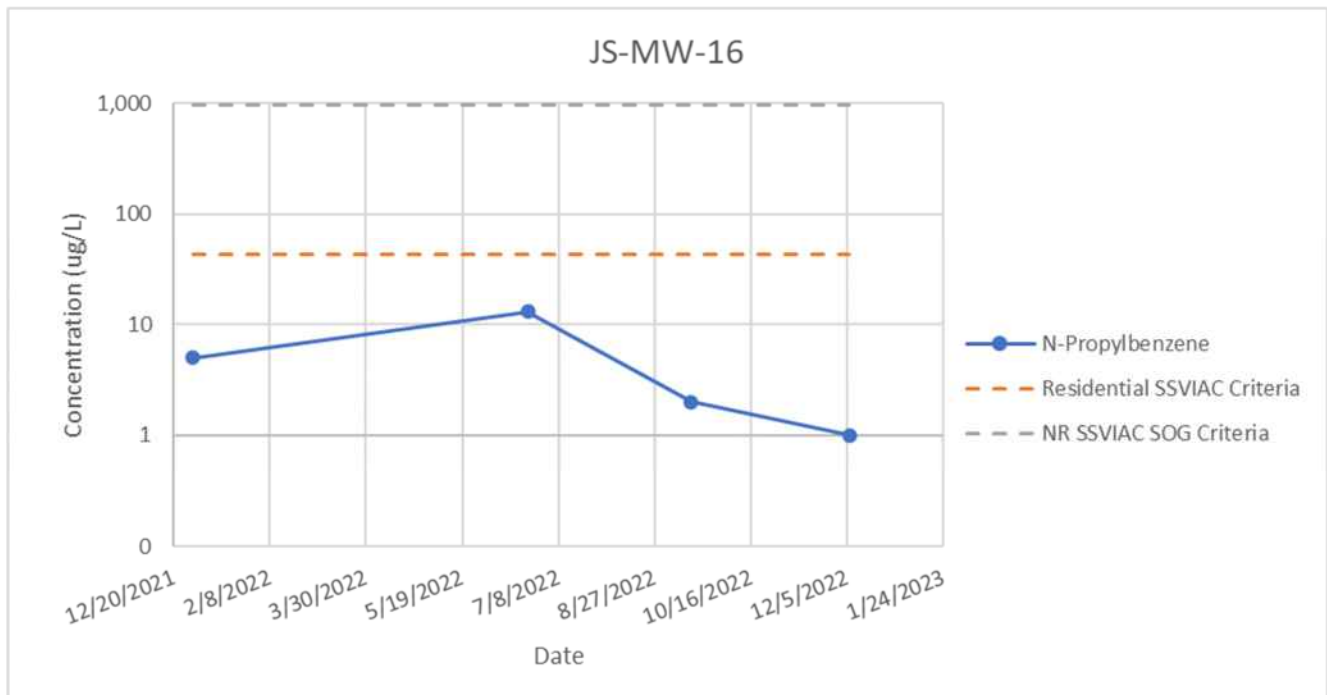
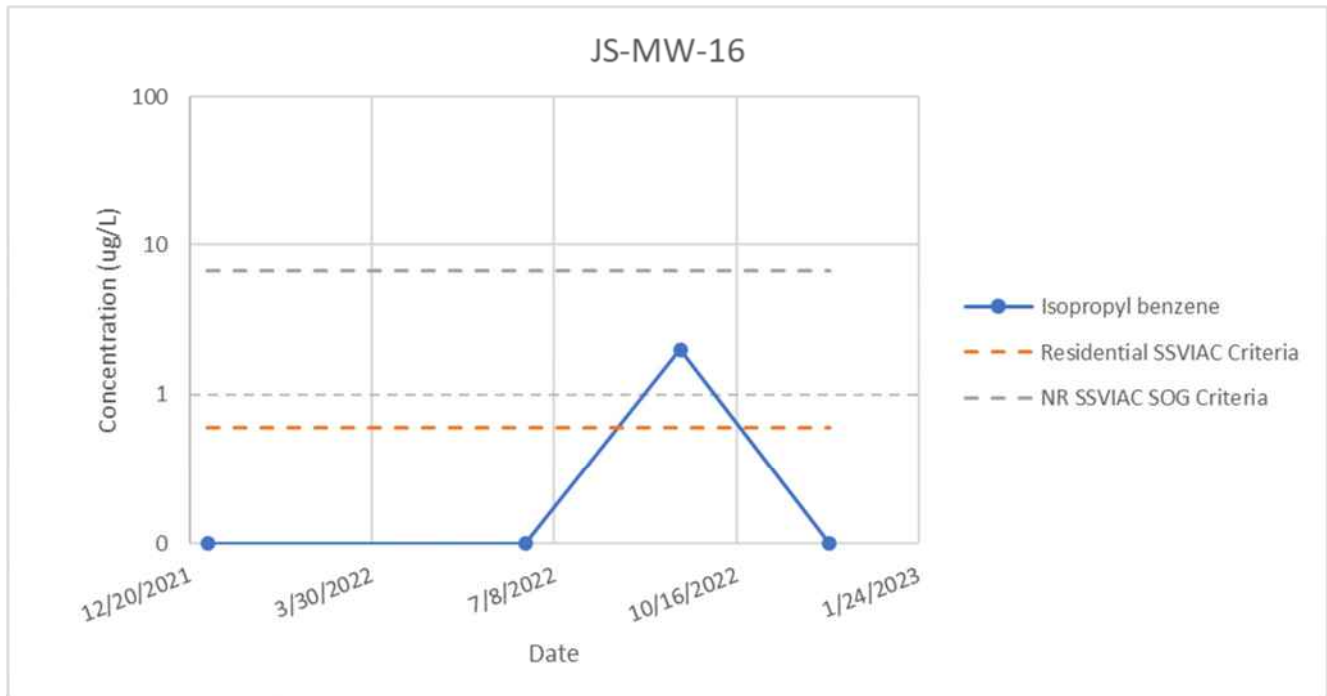
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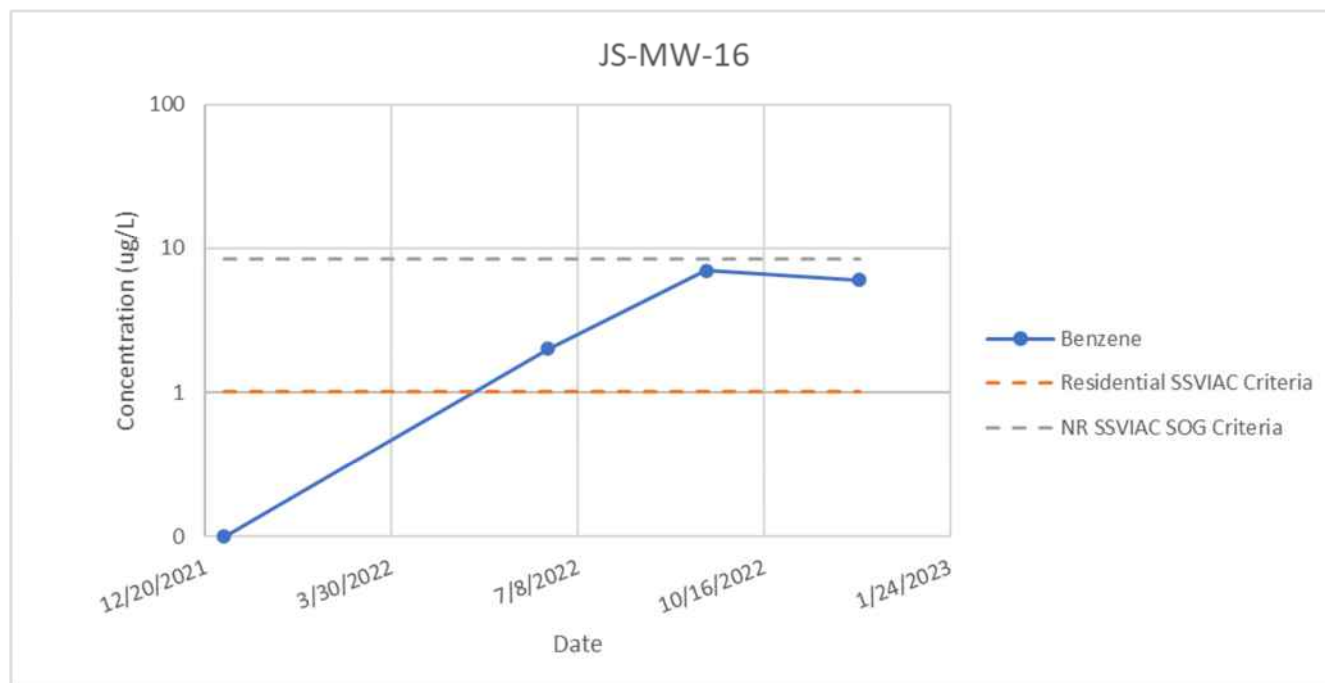
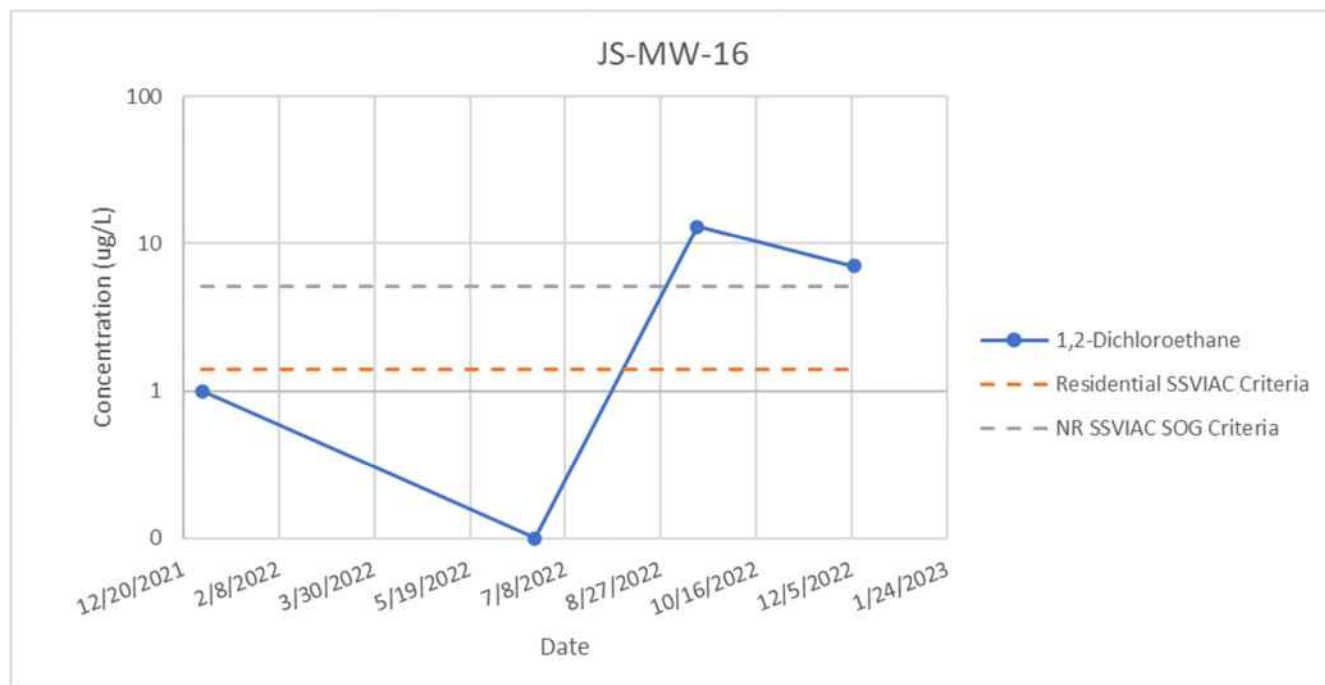
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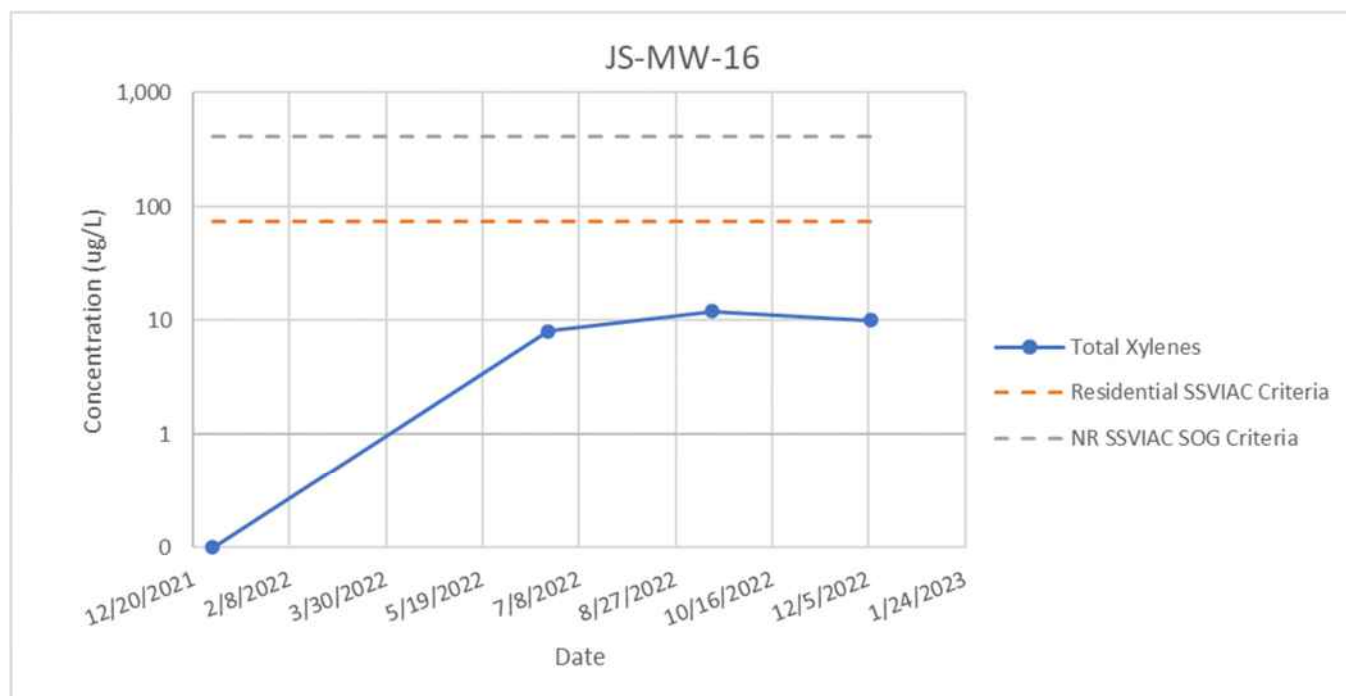
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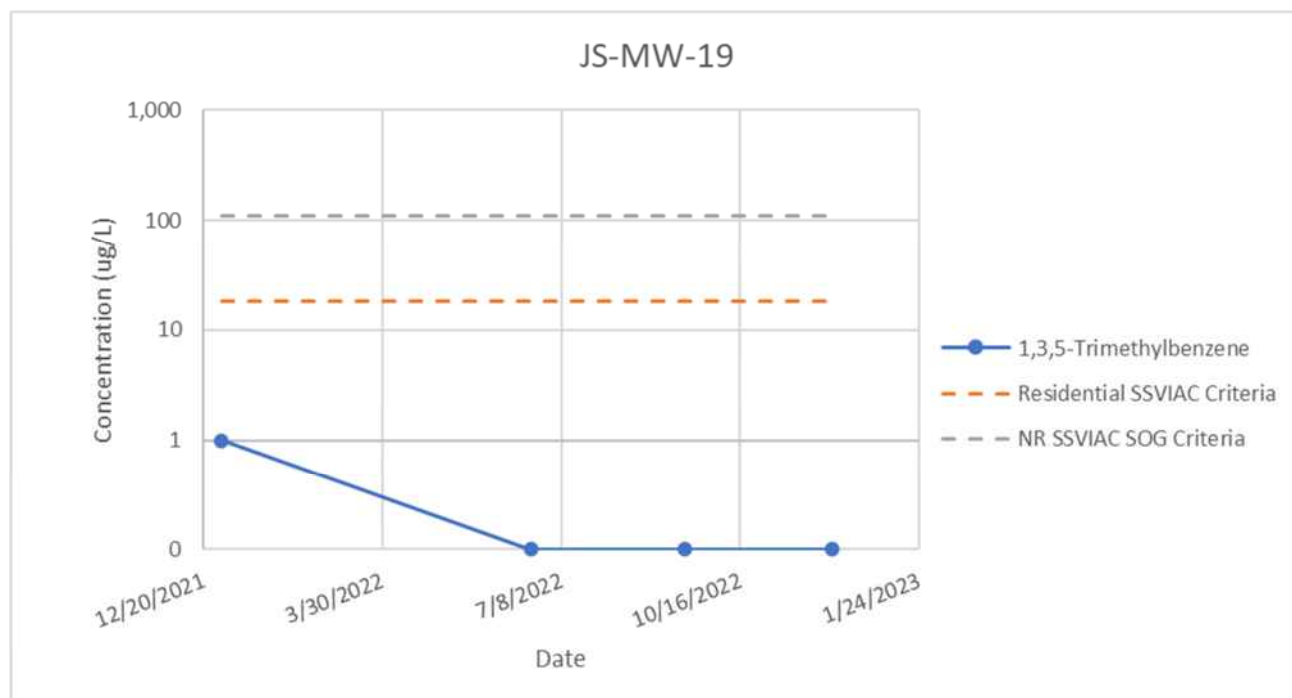
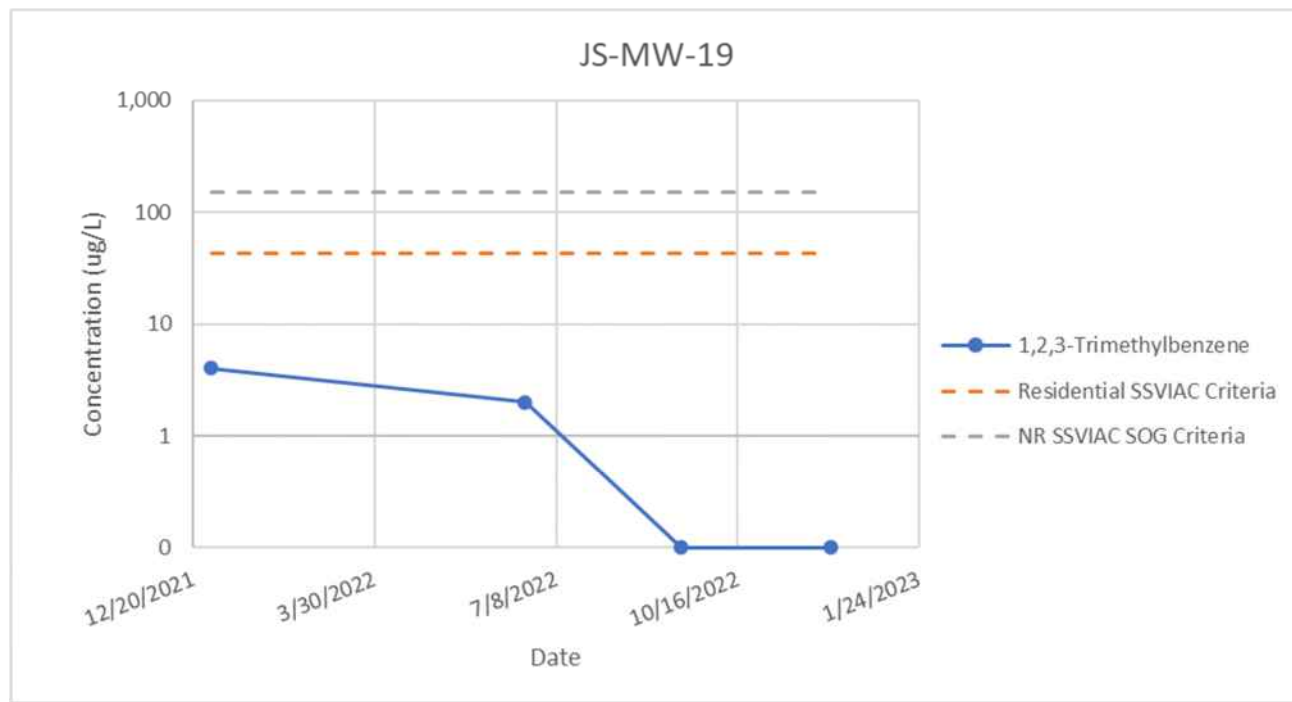
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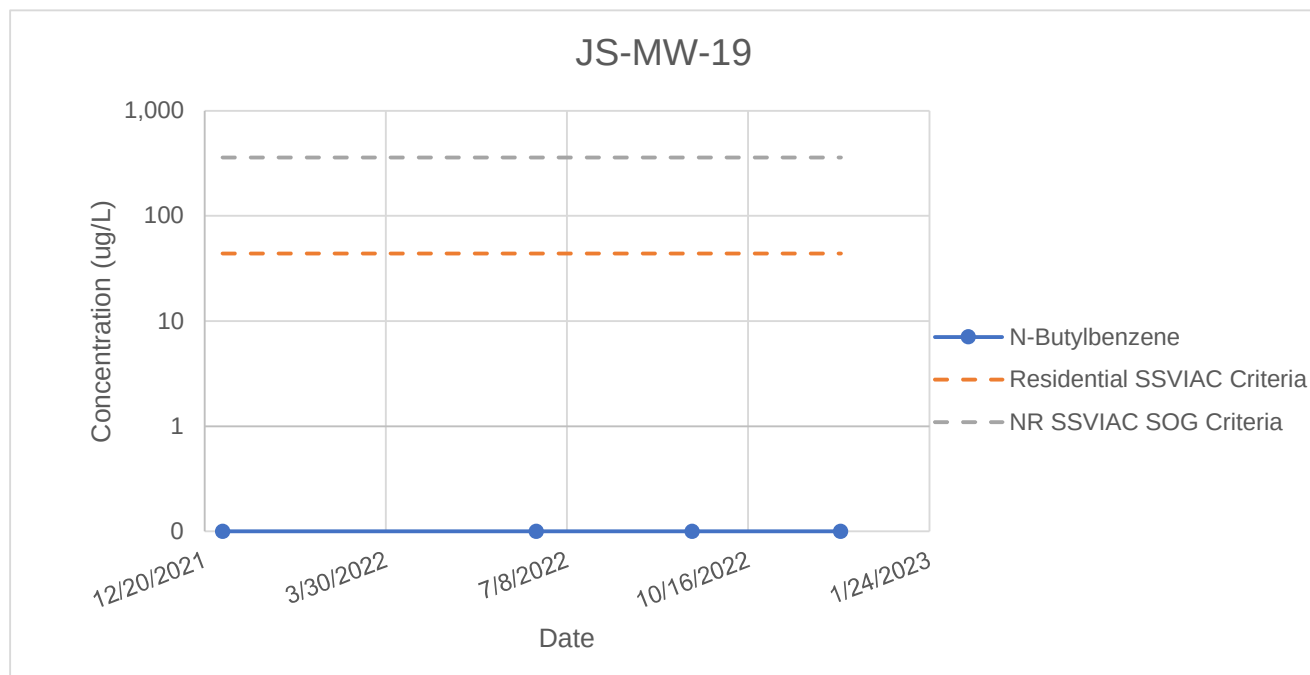
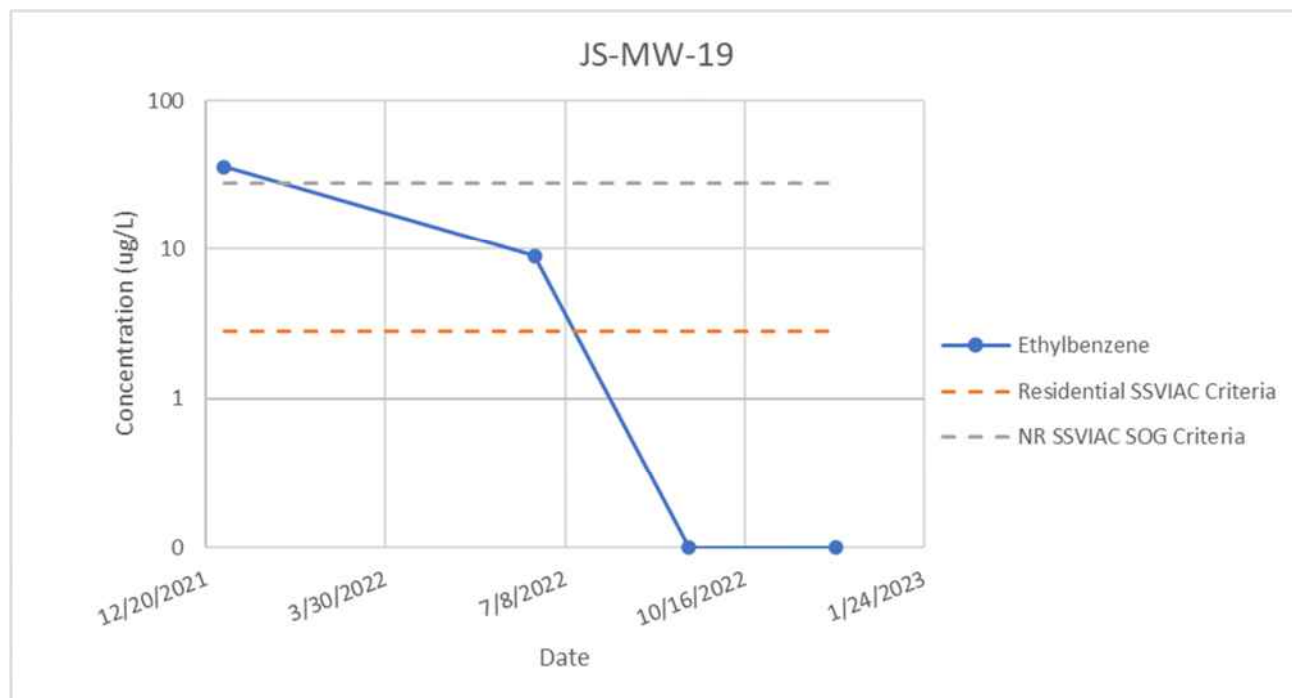
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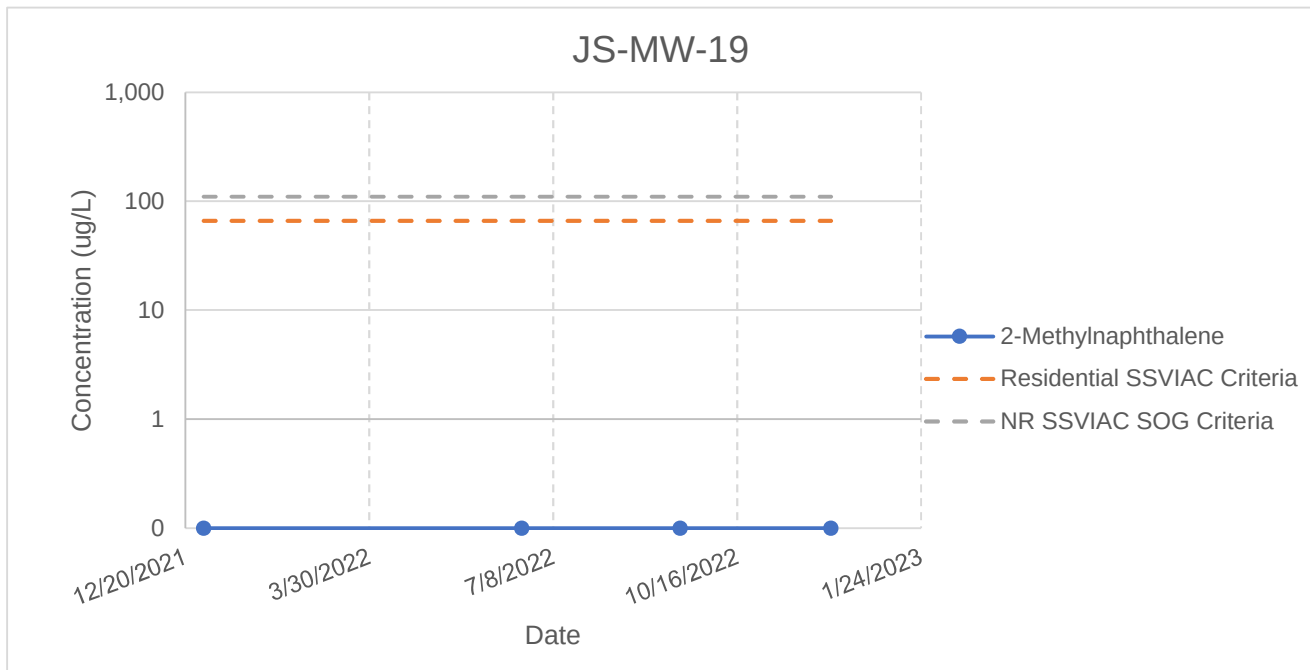
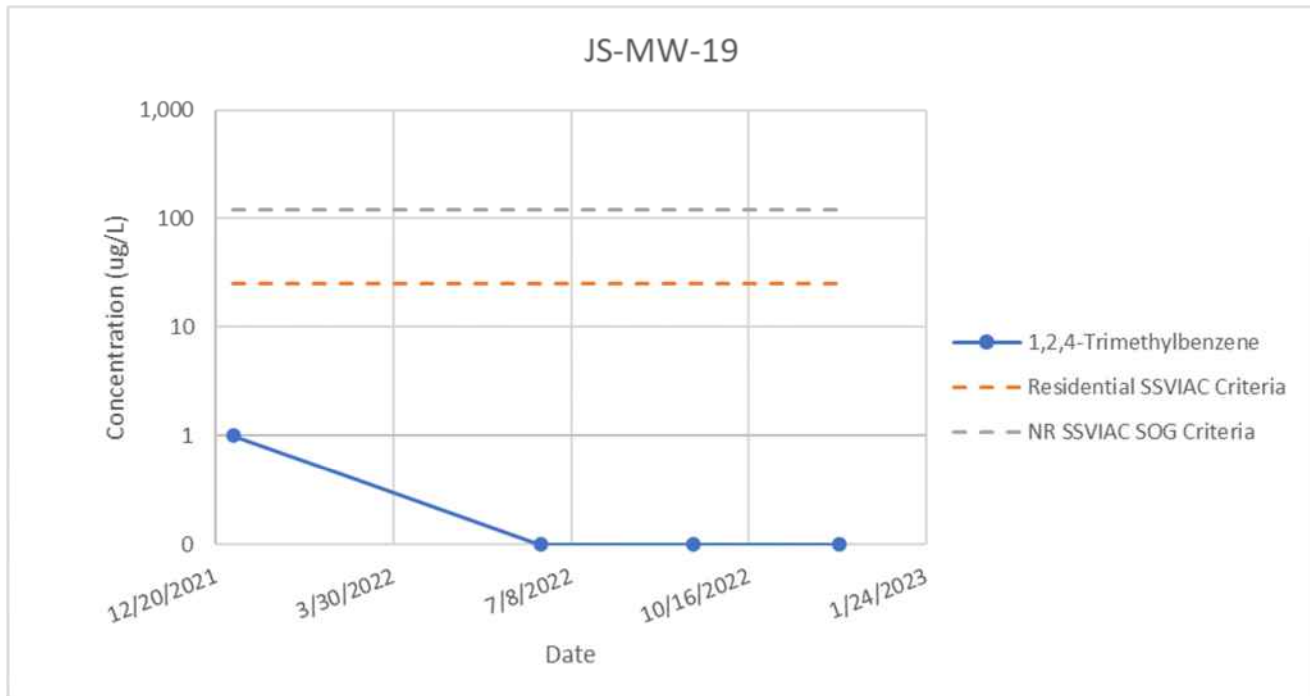
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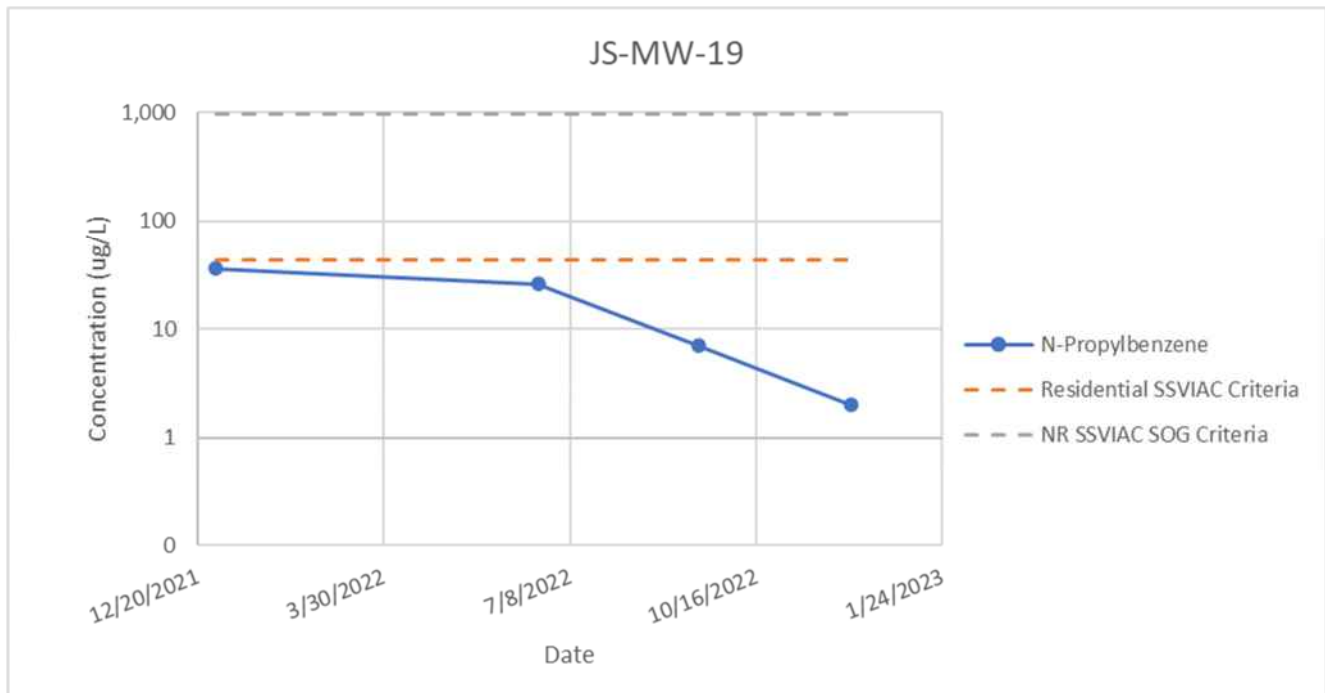
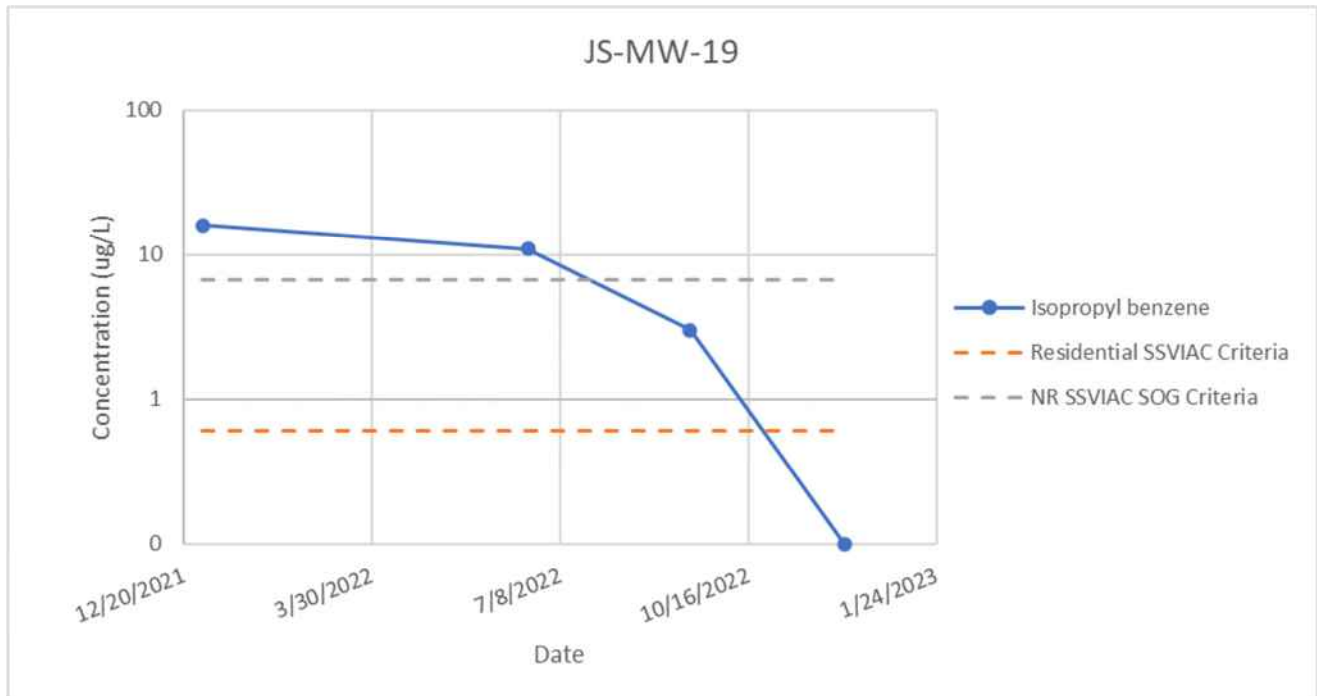
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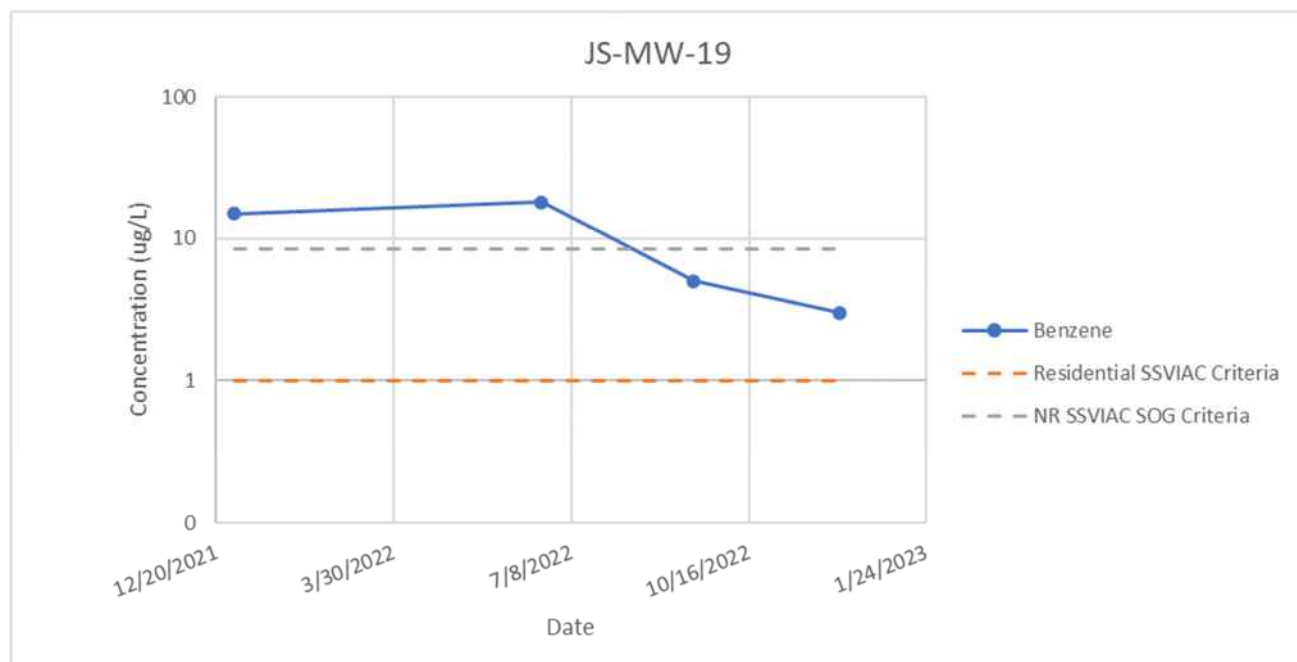
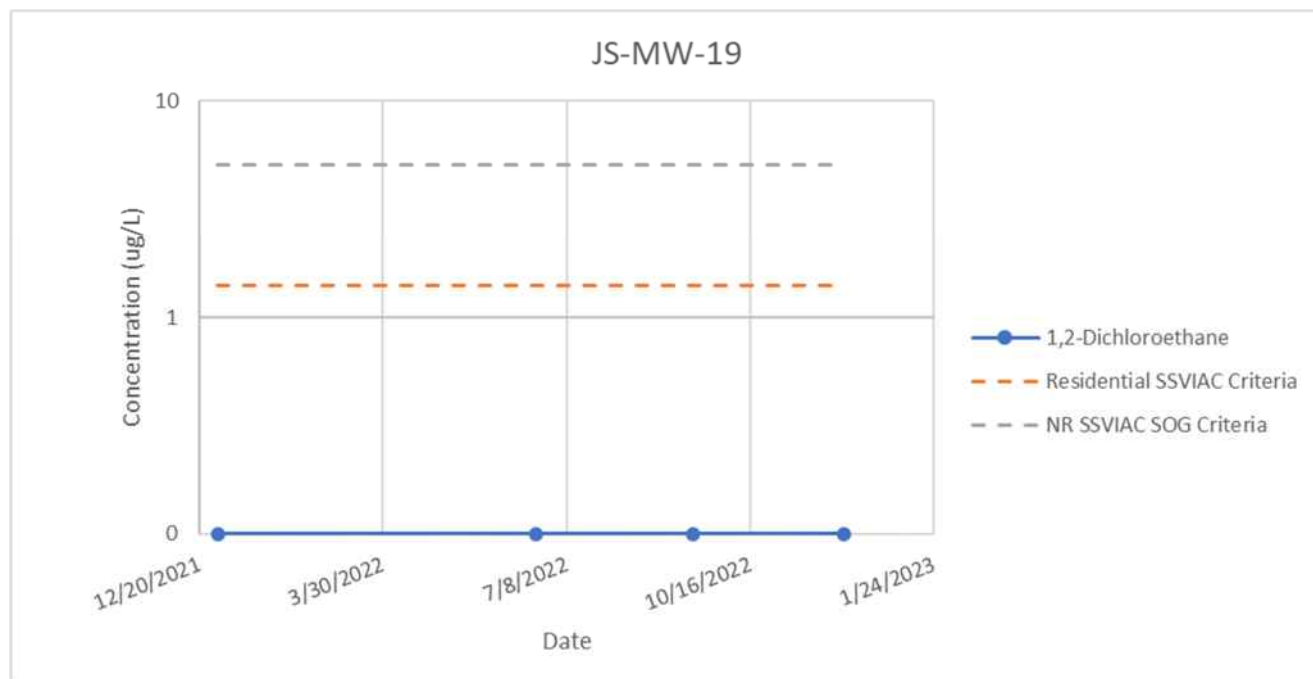
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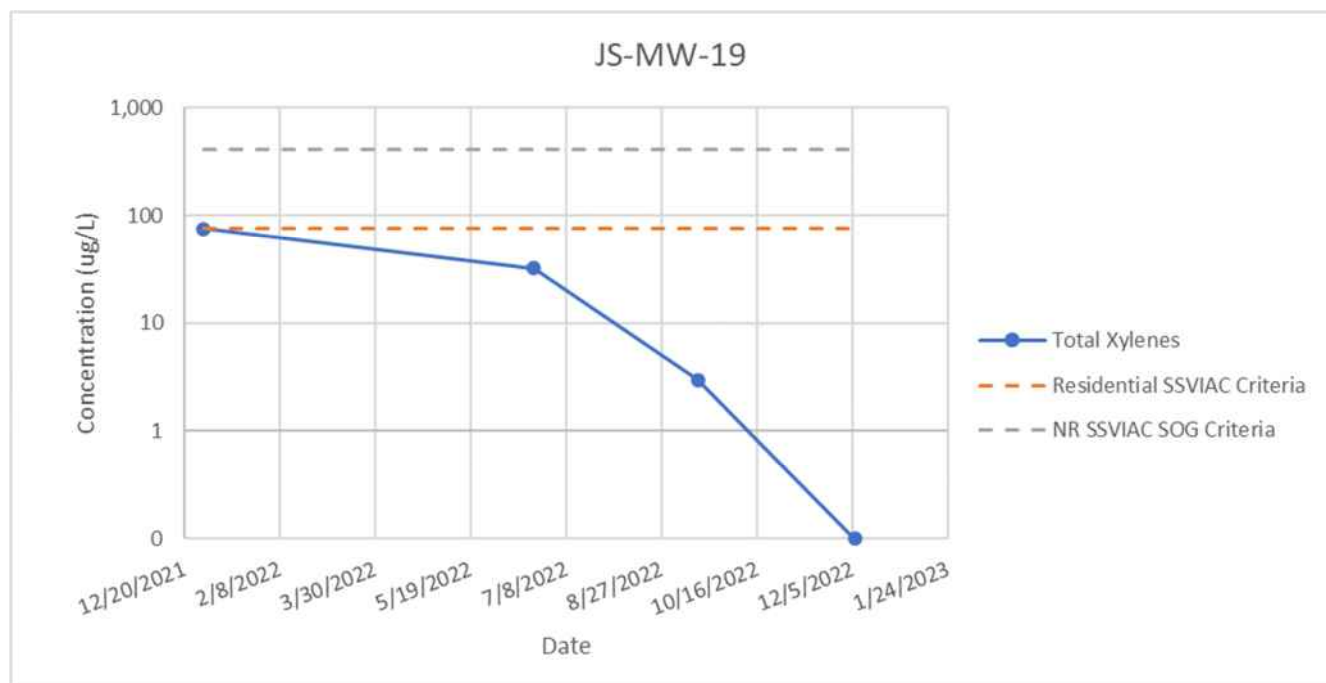
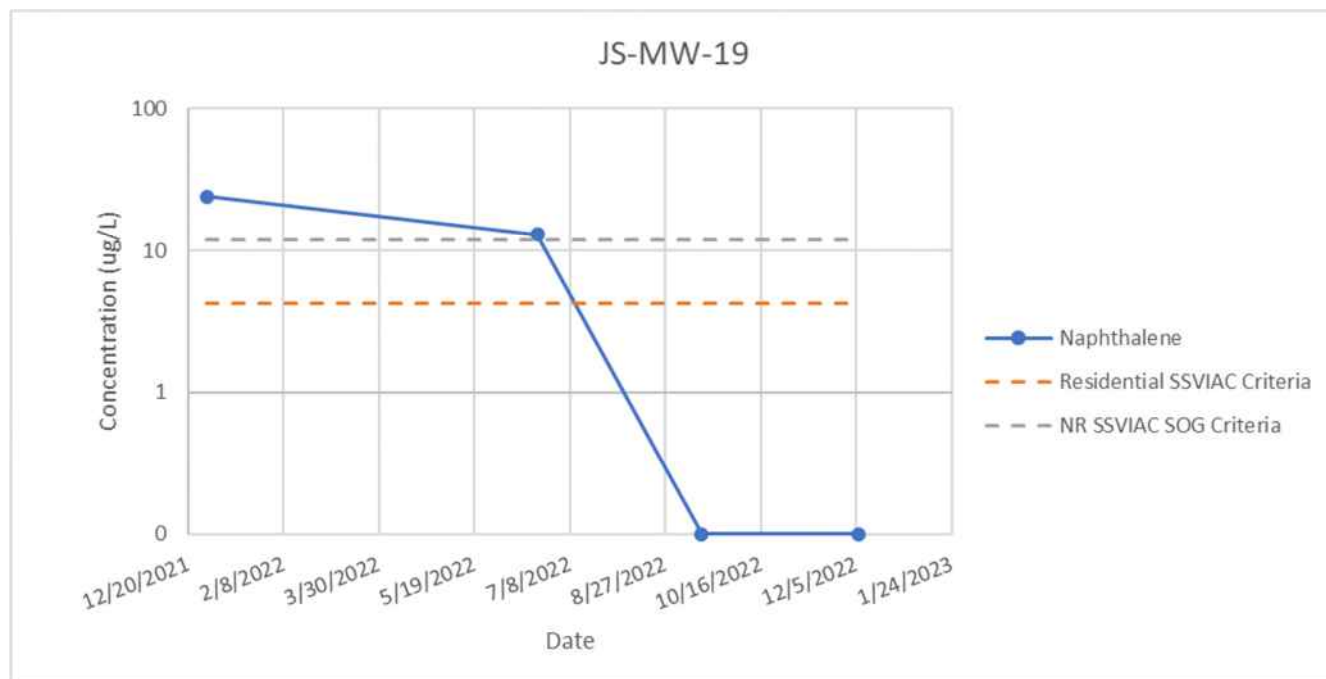
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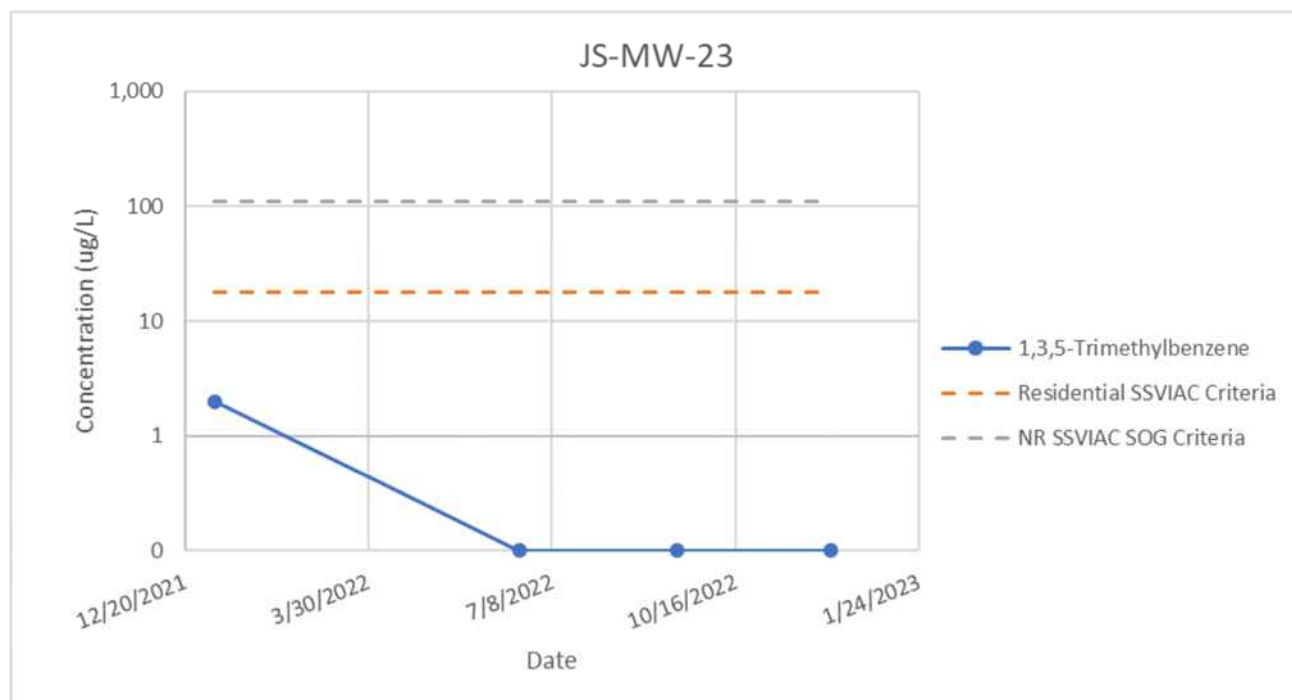
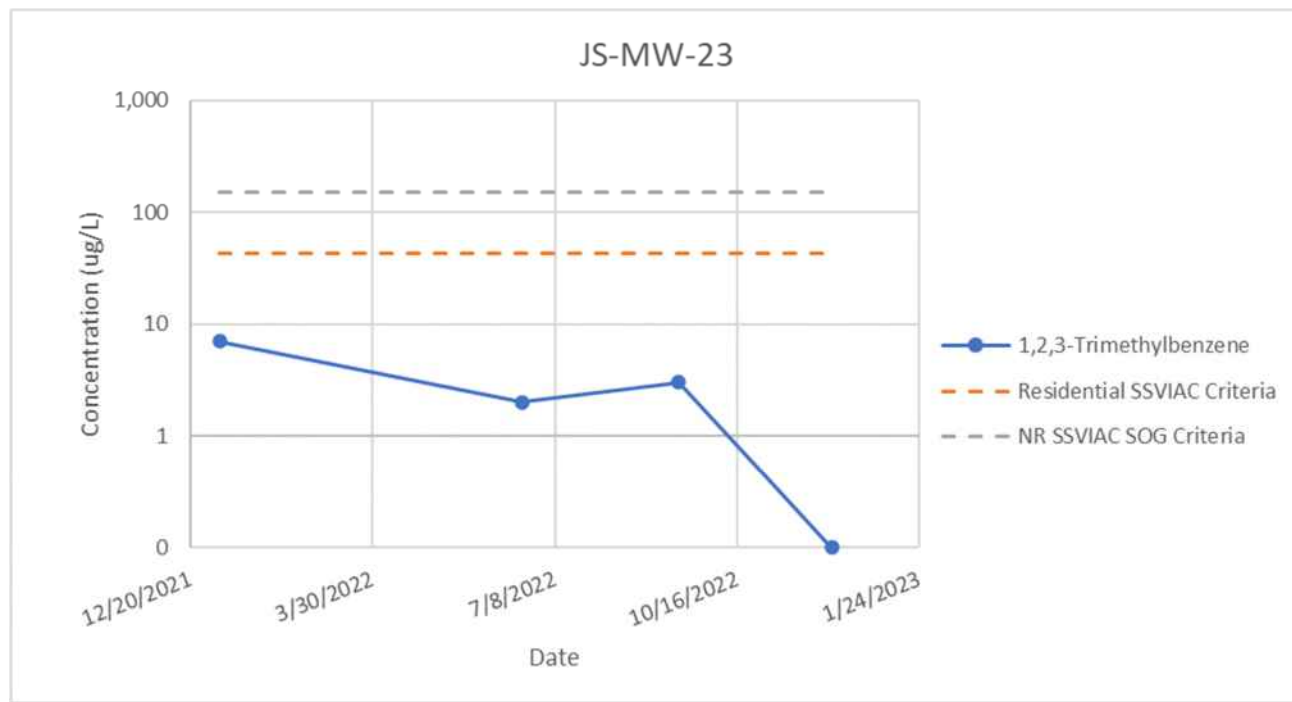
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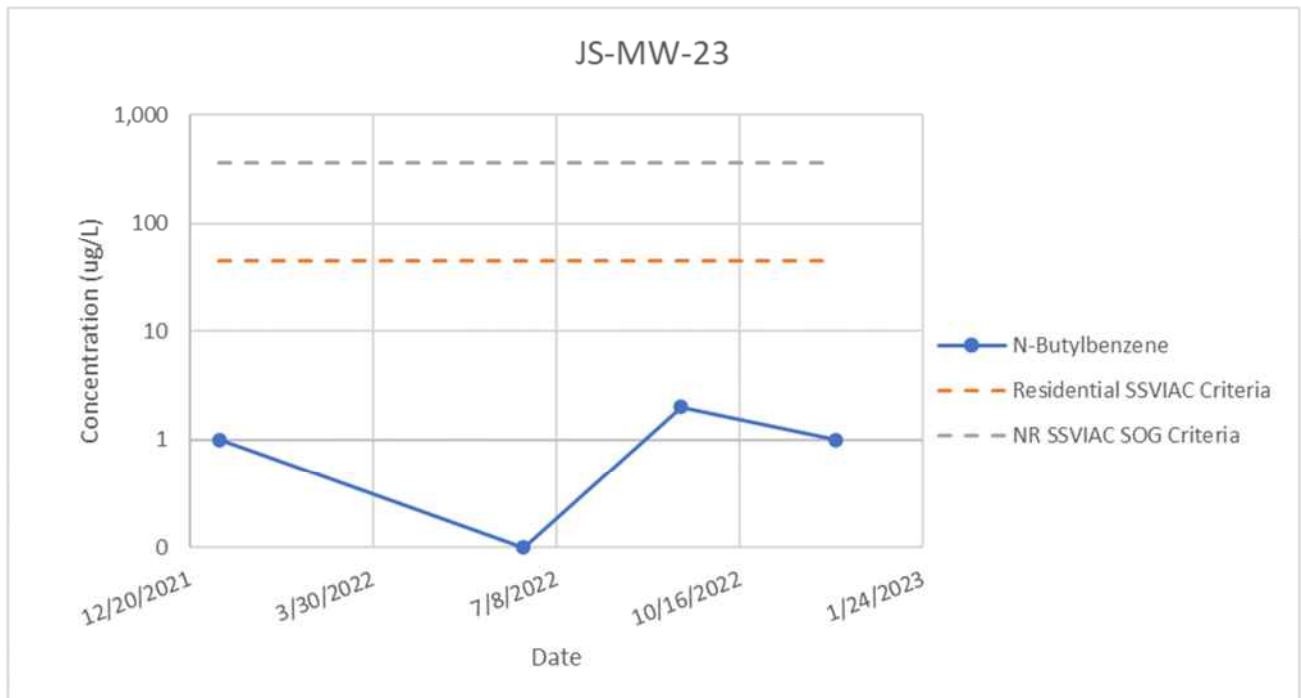
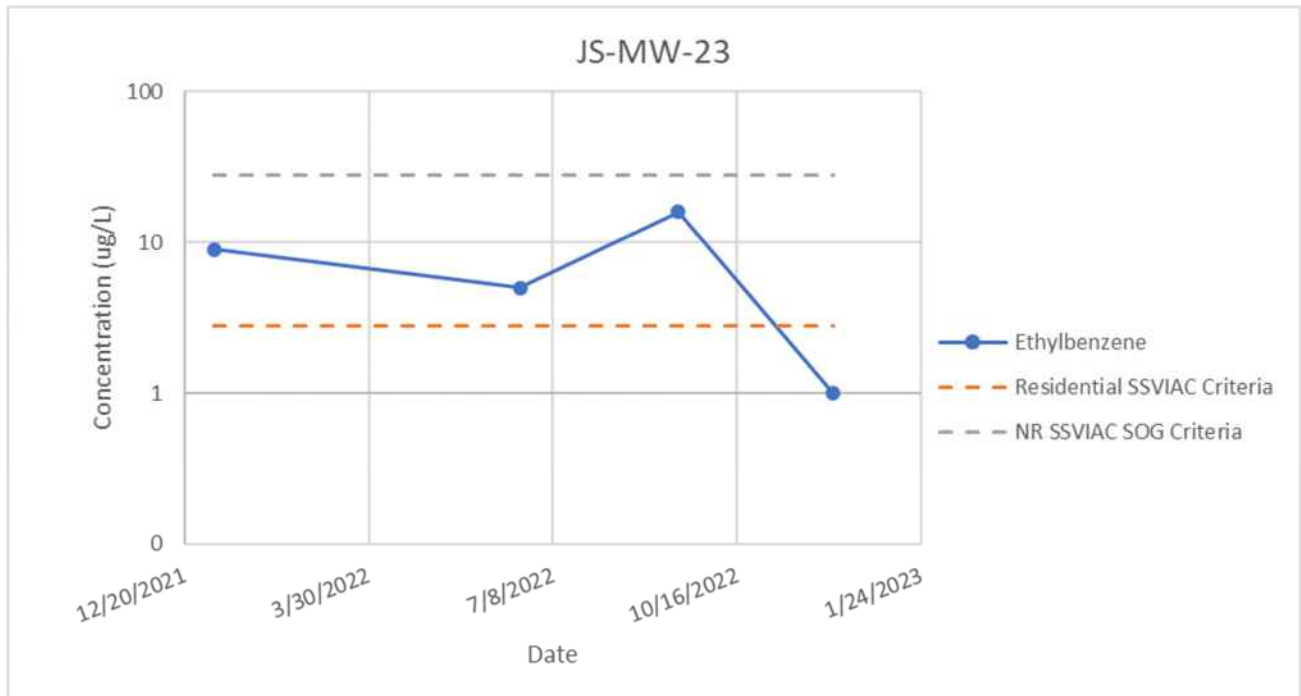
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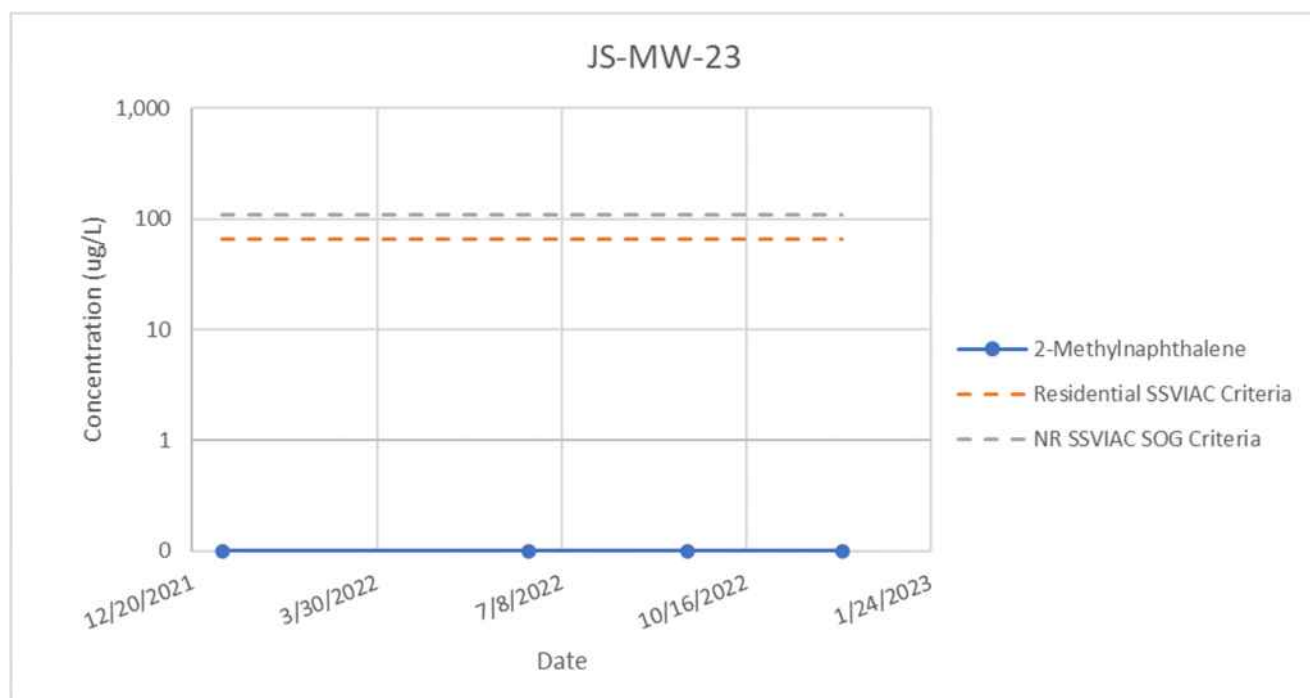
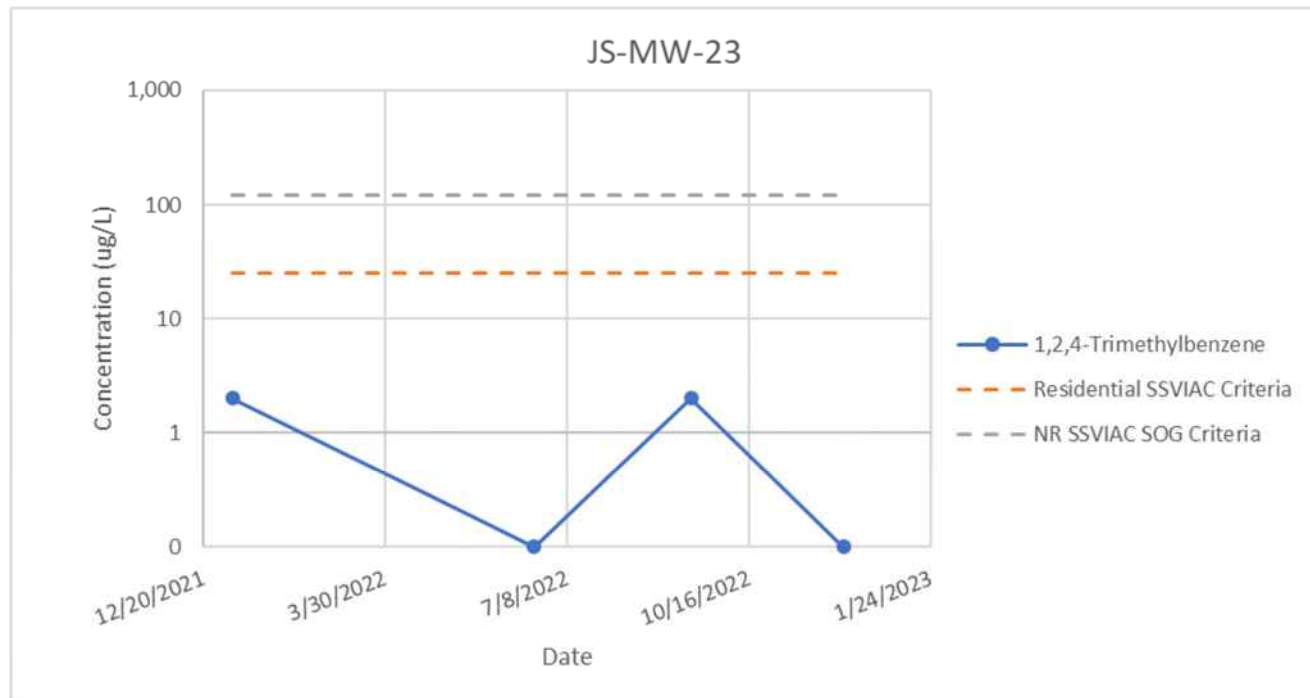
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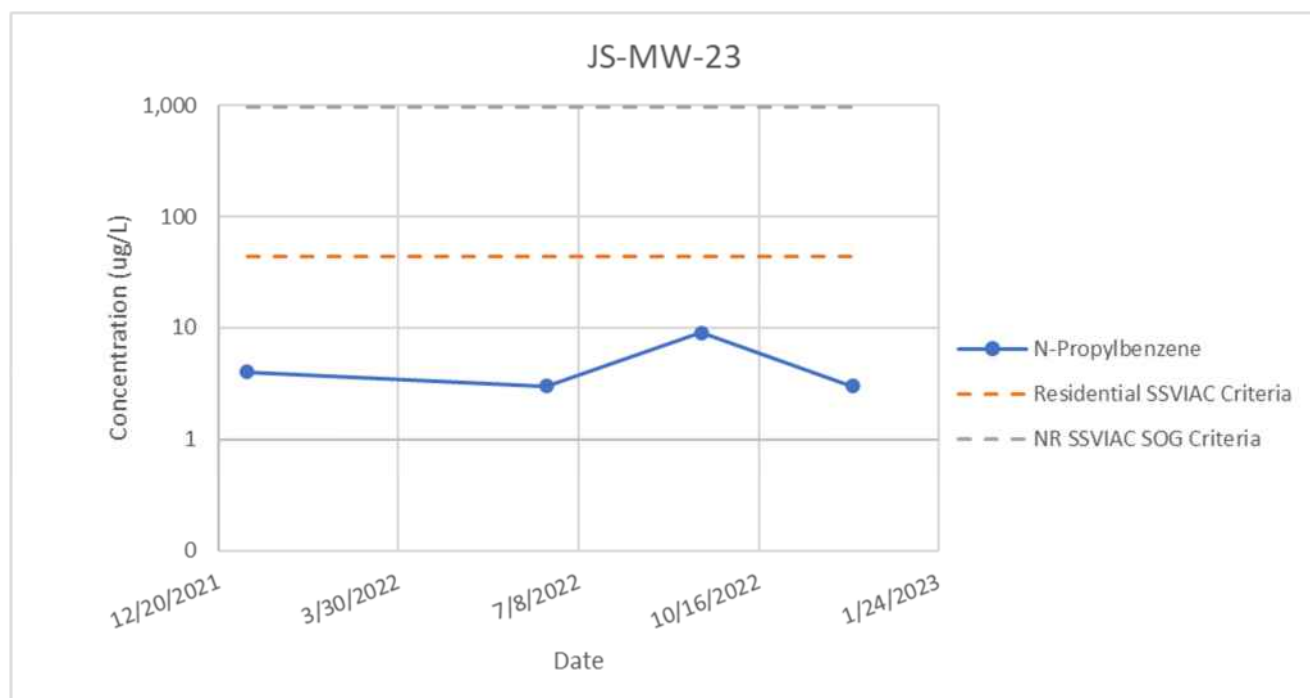
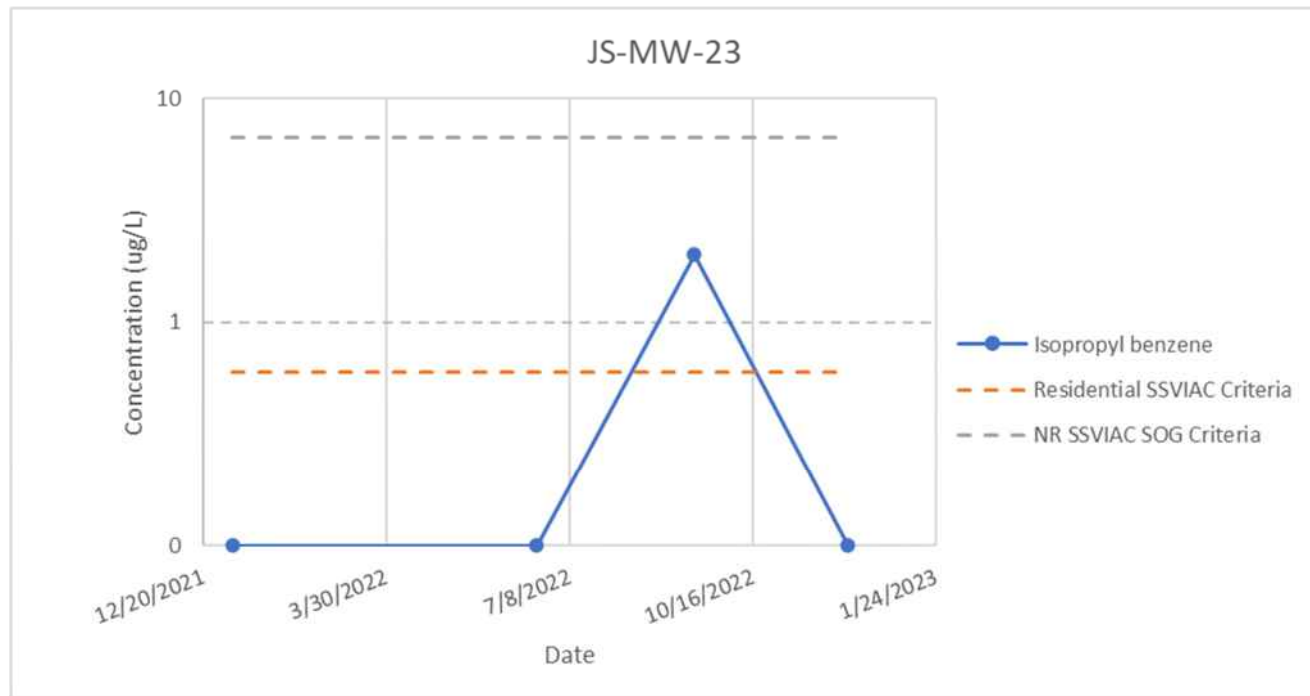
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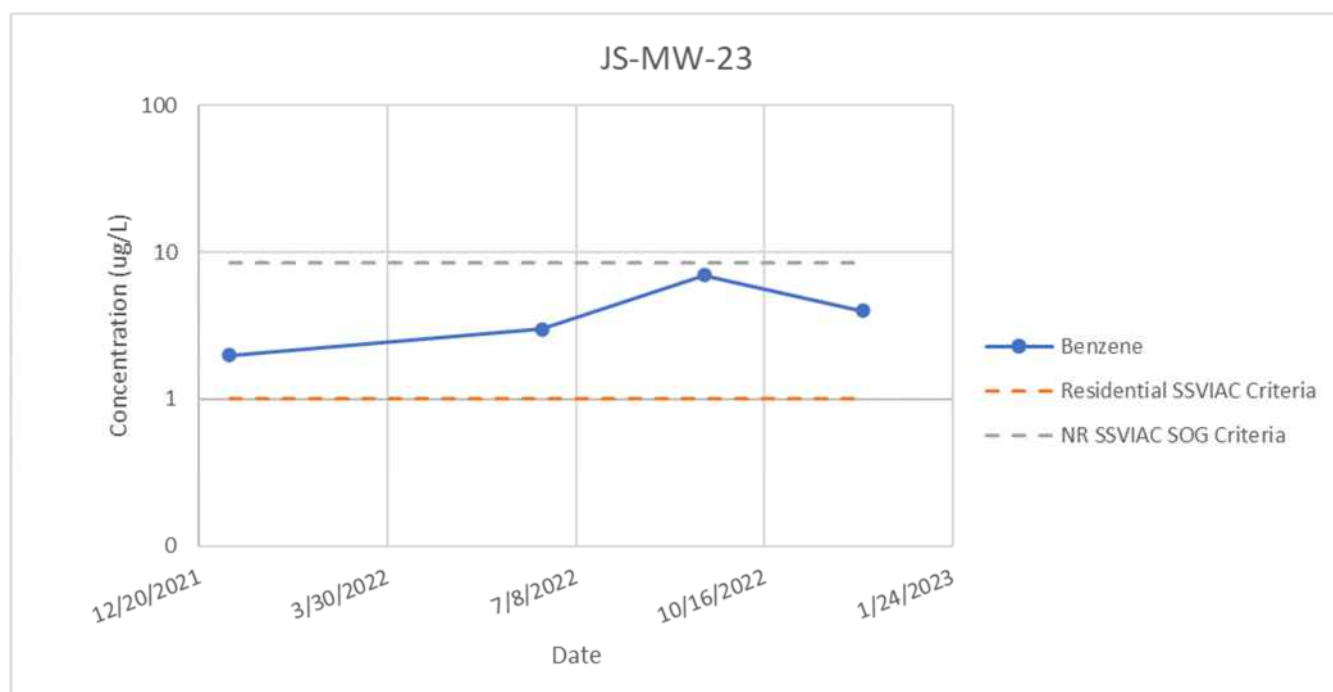
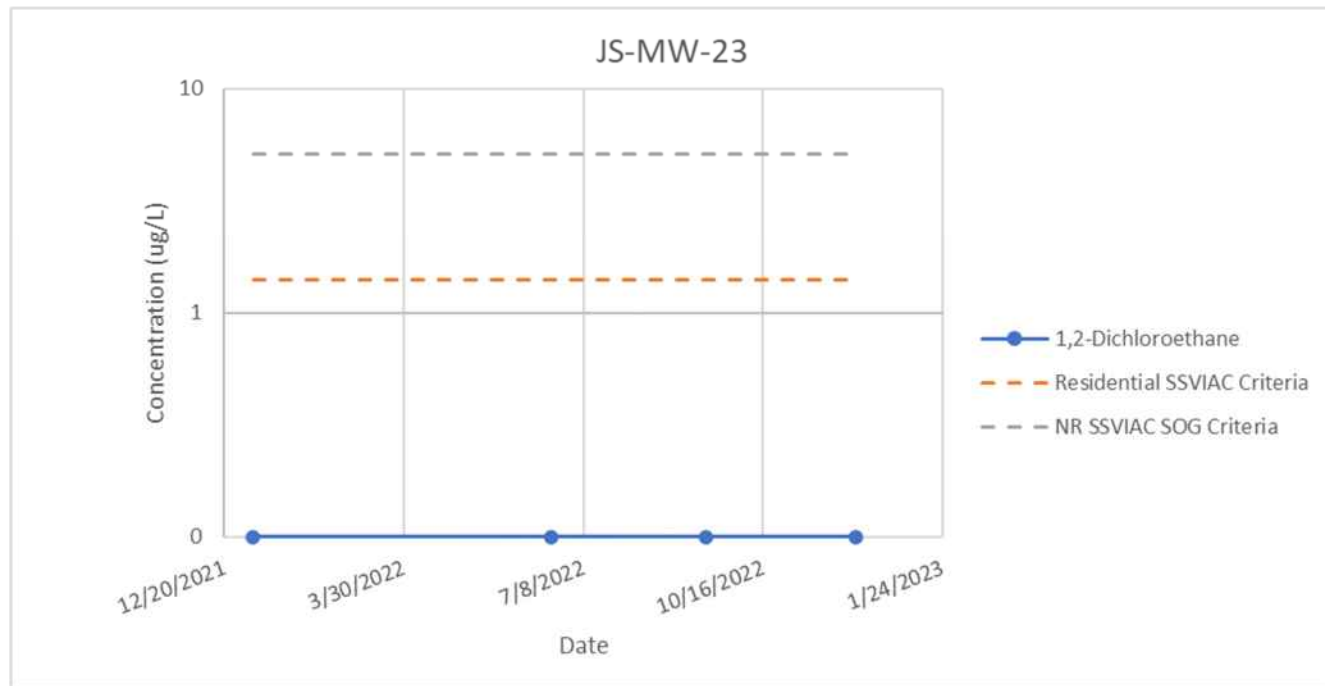
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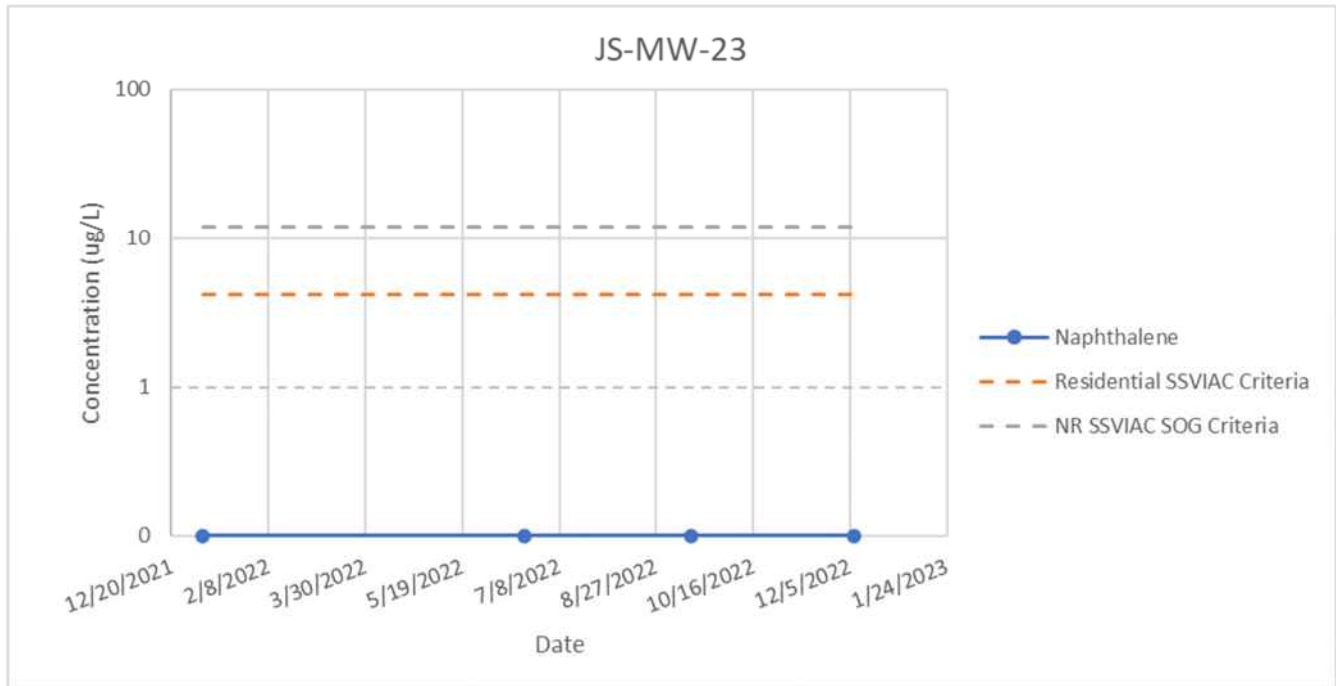
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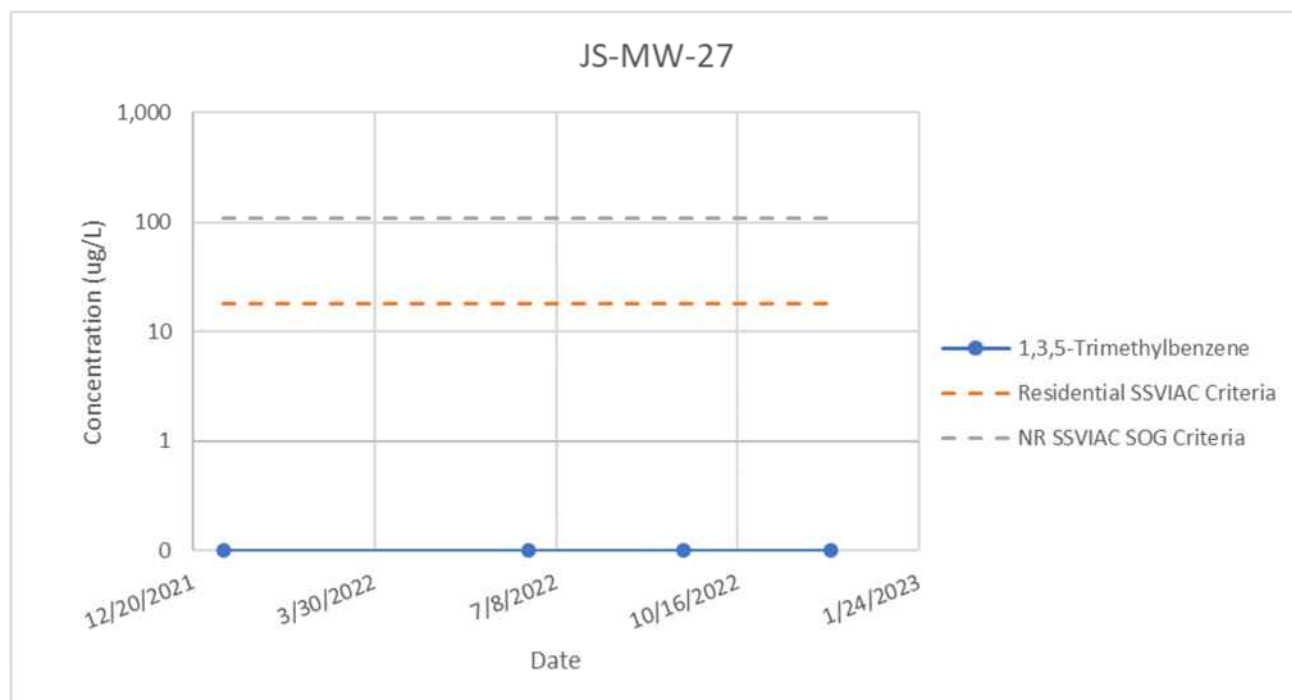
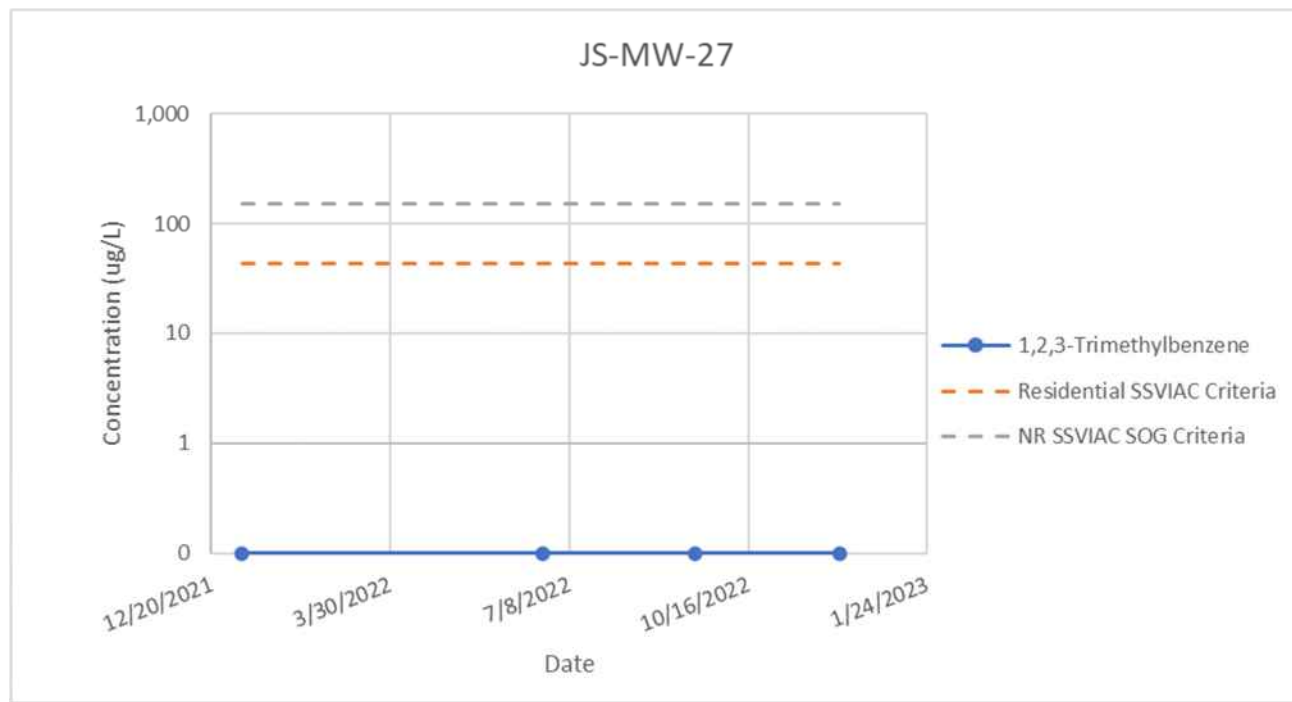
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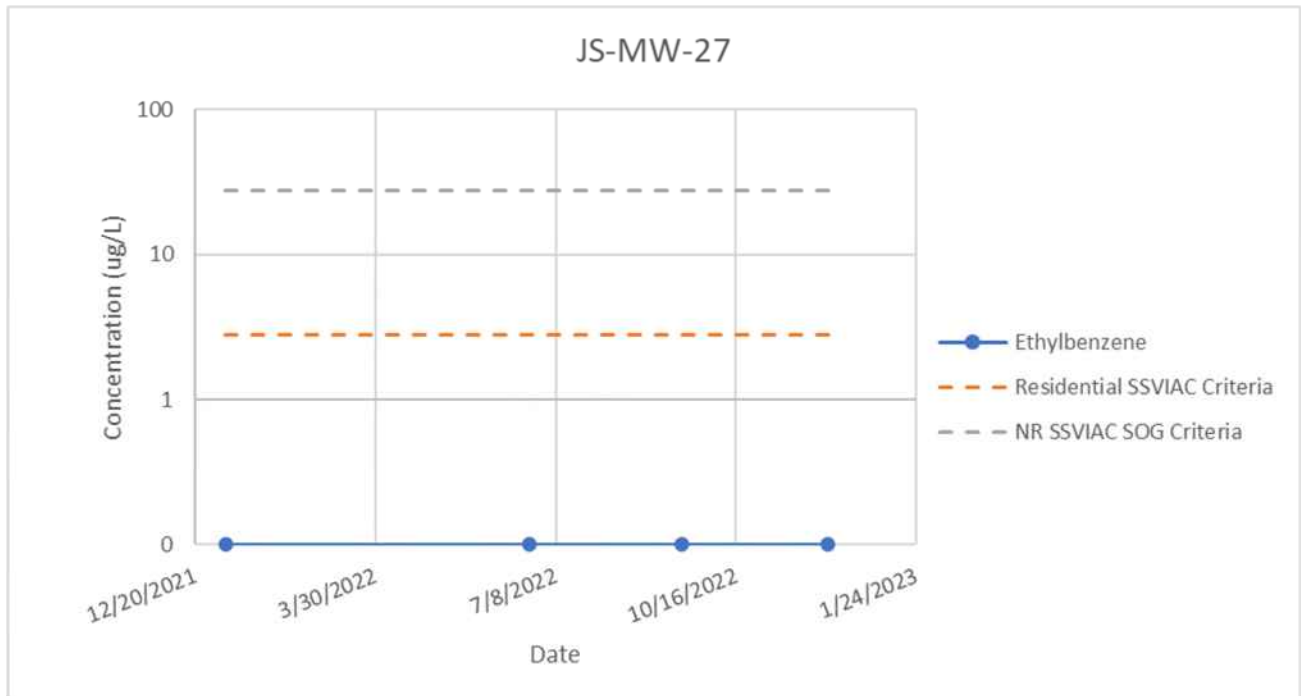
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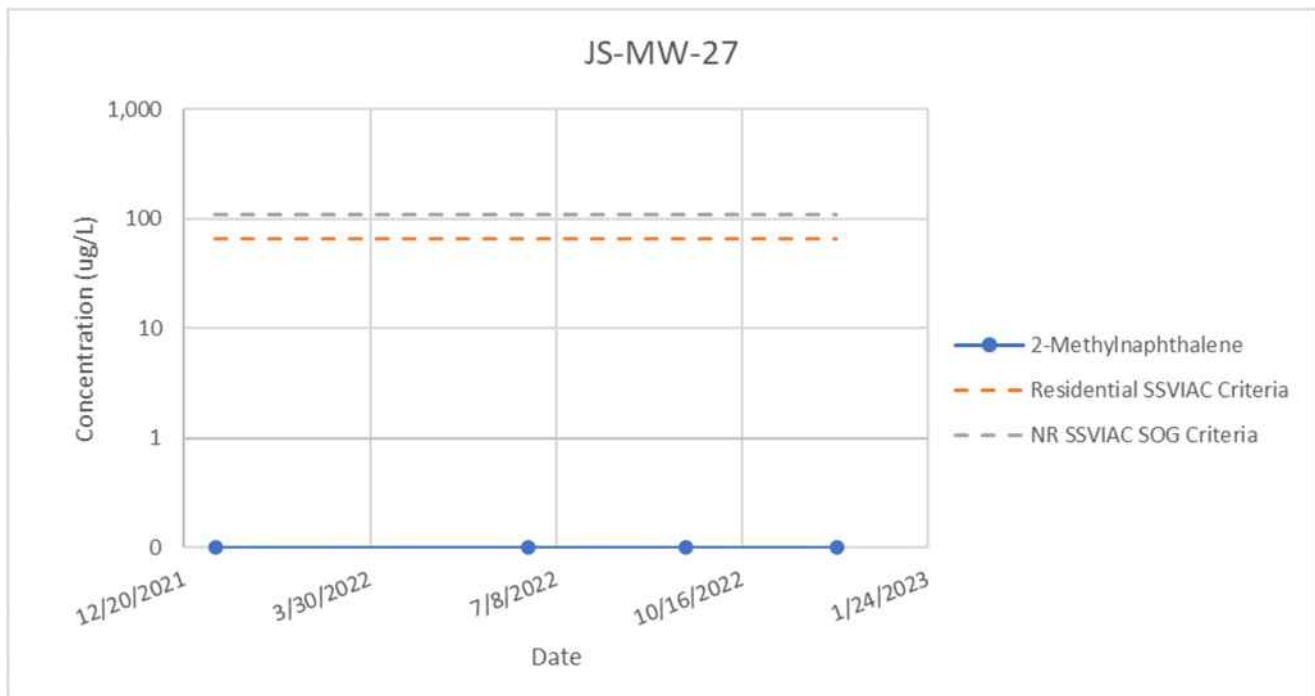
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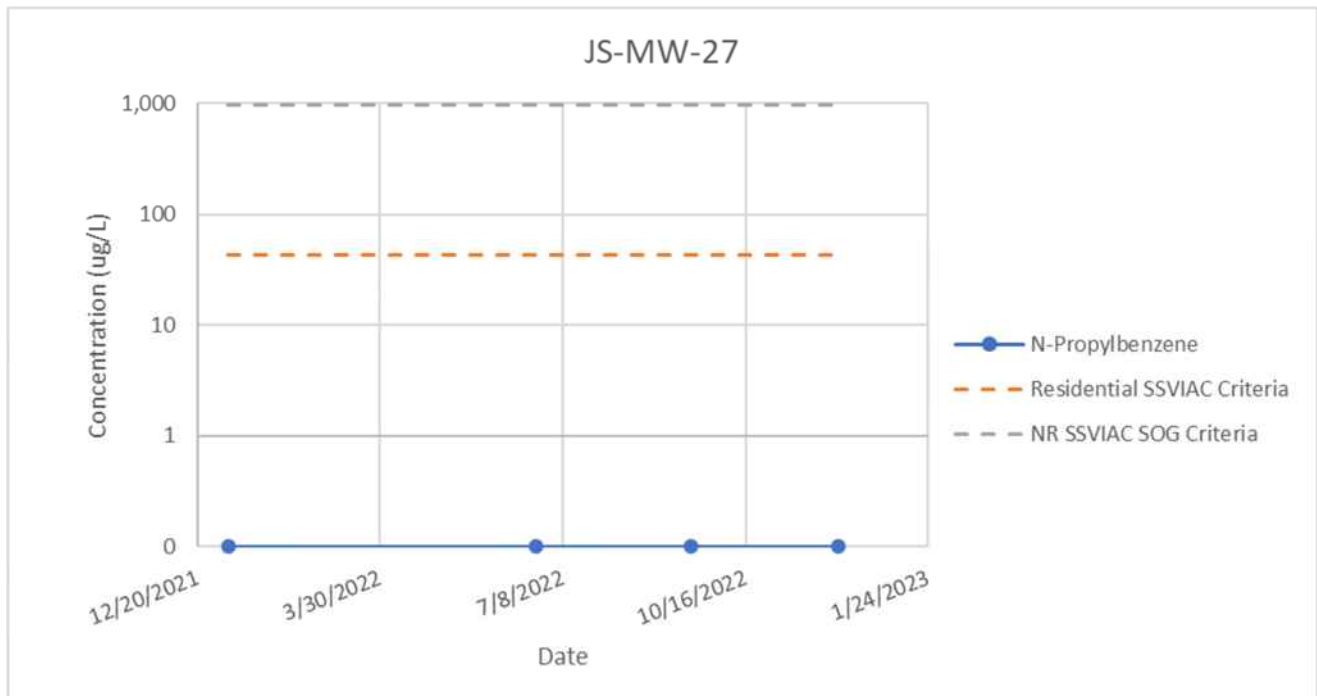
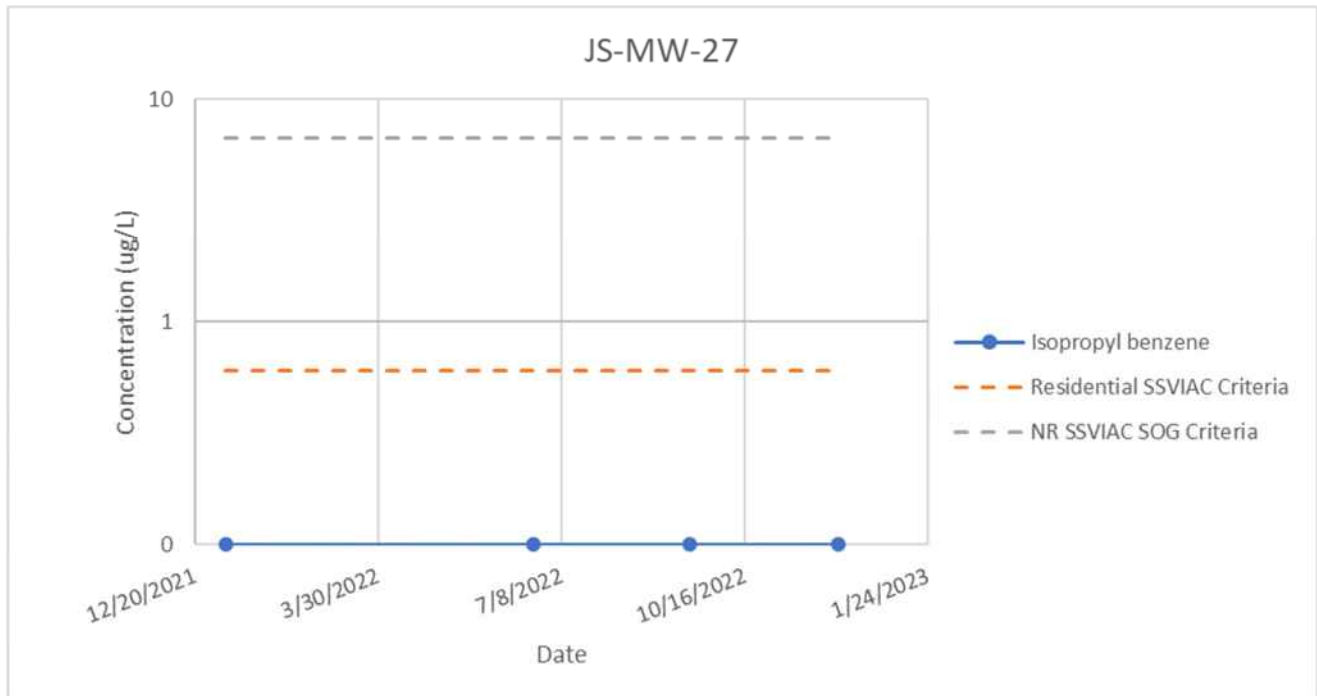
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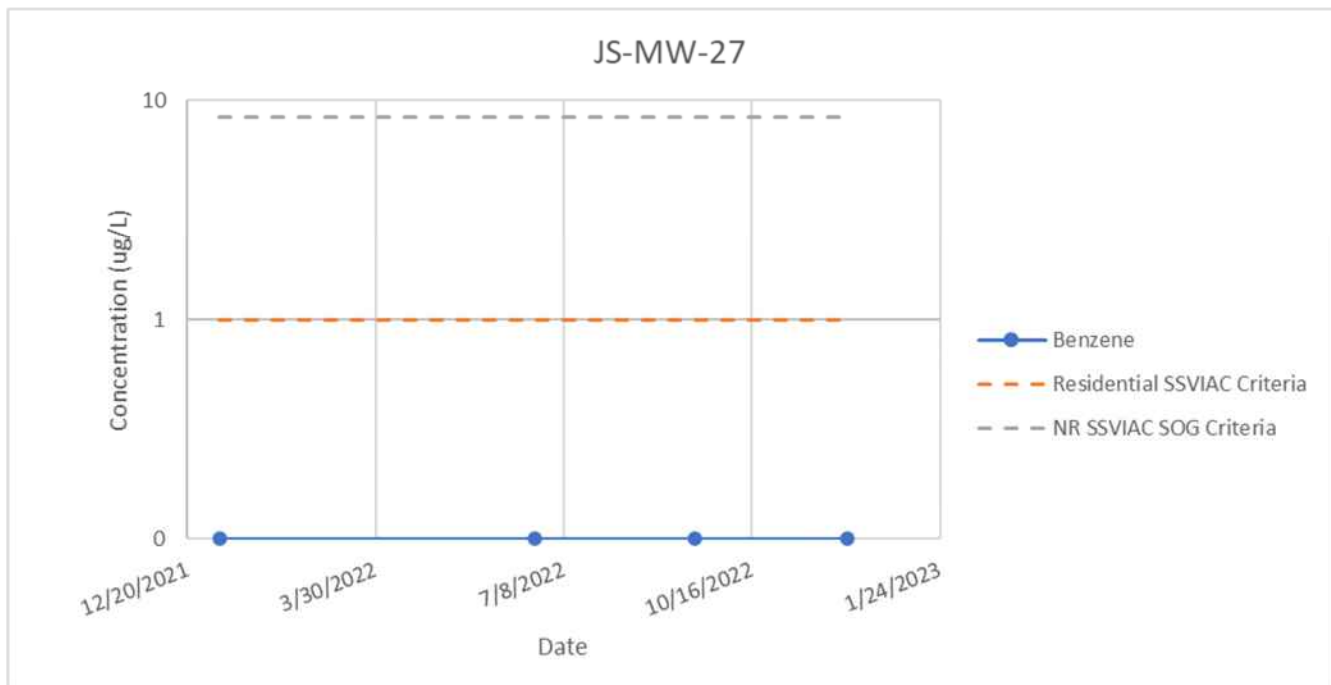
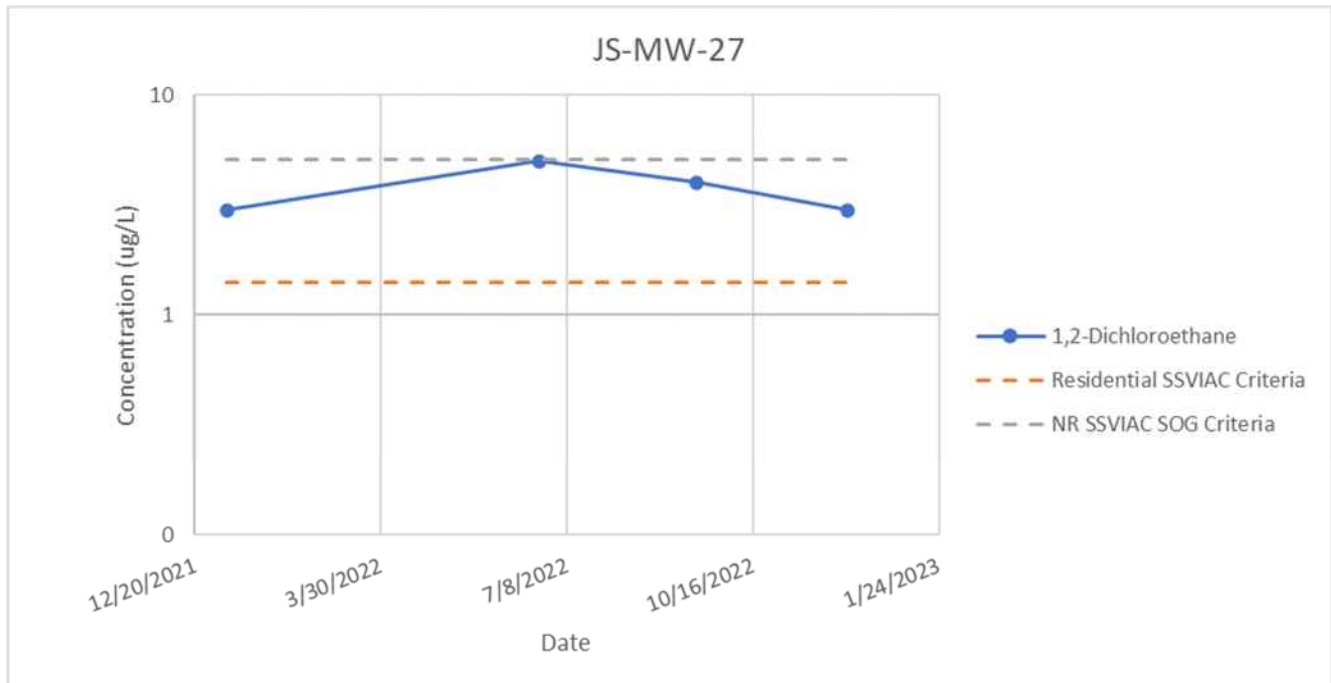
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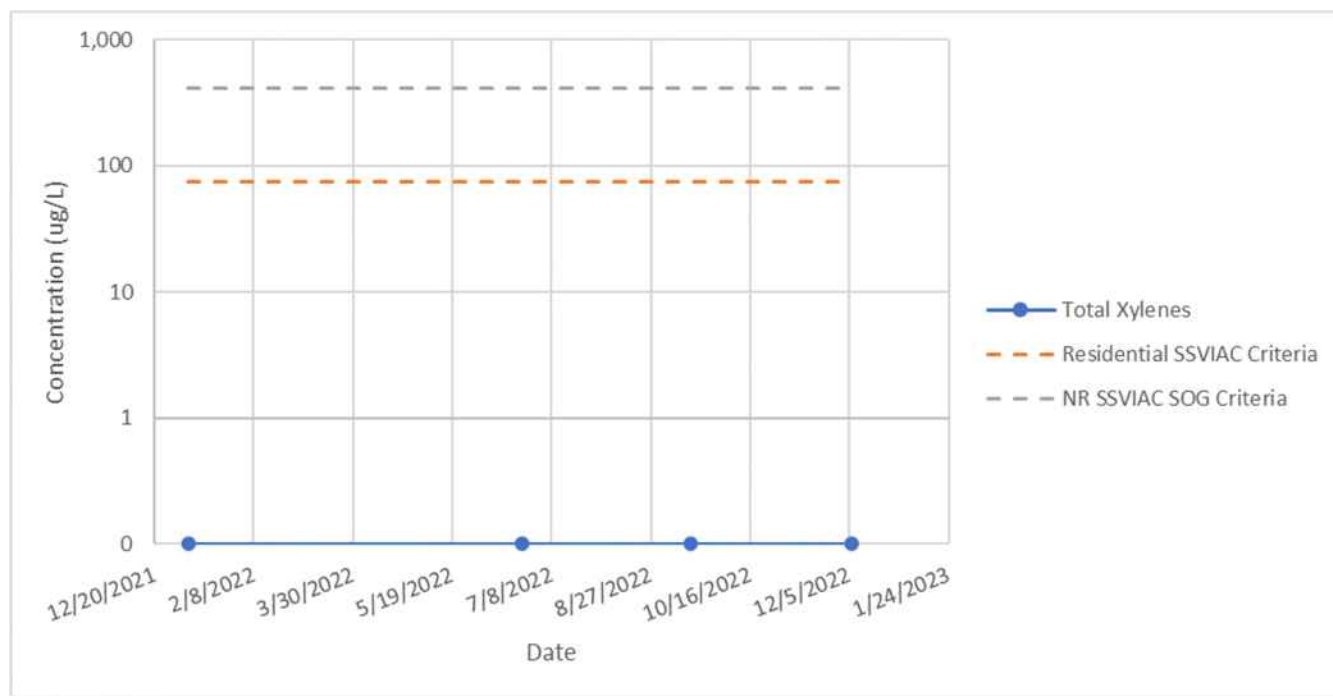
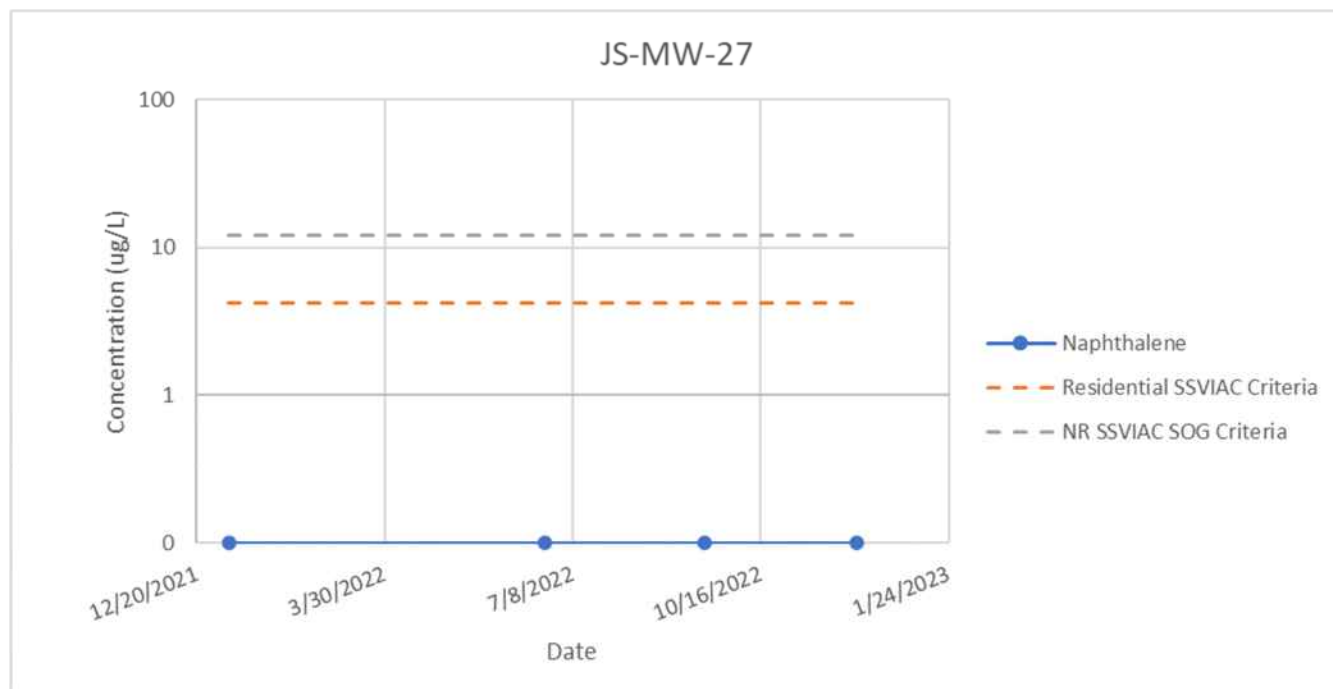
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Notes:

1. All non-detect results shown as zero.
2. Criteria listed are from the EGLE Joslyn Site-Specific Criteria Evaluation dated May 3, 2022.

Abbreviations:

- ug/L – micrograms per liter
- NR - Nonresidential
- SOG – Slab-on-grade scenario
- SSVIAC – Site-specific volatilization to indoor air criteria

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