

March 27, 2023

John Sager
Wisconsin Department of Natural Resources
1701 North 4th Street
Superior, WI 54880

Re: Facility-Wide Groundwater Monitoring Report for 2022
Superior Refining Company LLC, Superior, WI
WDNR BRRTS# 16-16-559511
Facility ID 816009590

Dear John:

On behalf of Superior Refining Company LLC (SRC), Barr Engineering Co. (Barr) is submitting this facility-wide Environmental Response Program (ERP) remediation progress report for the SRC refinery in Superior, Wisconsin. Periodic site progress reporting to the Wisconsin Department of Natural Resources (WDNR) is required pursuant to ss. NR 700.11(1) and 724.13(3), Wisconsin Administrative Code. This report summarizes monitoring activities conducted at the site in 2022.

1 Facility and Site Background Information

Figure 1 shows the location and approximate boundary of the facility-wide ERP site and the area surrounding the refinery. Figure 2 presents the site layout of the refinery which occupies portions of Sections 25, 26, 30, and 36; Township 49 North; Range 14 West; in Superior Township of Douglas County, Wisconsin. Figure 2 also shows the locations of the 22 monitoring wells and eight piezometers currently part of the semiannual monitoring network. Table 1 provides a summary of monitoring wells and piezometers in the facility-wide ERP groundwater monitoring array.

Topography at the refinery slopes gently to the east. Surface elevations range from approximately 650 to 660 feet above mean sea level (MSL). The closest natural surface water body is Newton Creek, located approximately 850 feet east of the refinery's closest aboveground storage tank (AST) (Figure 1). The creek flows for approximately 1.5 miles to Hog Island Inlet, which connects to Lake Superior Bay. Storm water retention and fire water ponds, along with two artificial wetlands for wastewater treatment plant discharge polishing, are located just northwest of the Newton Creek headwaters, near the intersection of Stinson/24th Avenue and Bardon Avenue.

Other than the process areas, which are generally paved, most of the refinery property is unpaved. The depth to groundwater in the network monitoring wells ranges from less than 1 foot to greater than 6 feet below ground surface (bgs) depending on time of year and topography. The regional groundwater flow direction is to the east (Figure 2).

As presented in the April 2014 Gannett Fleming, Inc. (GF) *Final Memorandum of Agreement, Site Investigation and Remedial Action Plan* (SI/RAP) (GF, 2014), red-brown native lean clay till is present beneath the site, is relatively homogenous, and extends to approximately 100 feet bgs beneath the site. The hydraulic conductivity of the native clay underlying the refinery is on the order of 1×10^{-7} centimeters per second (cm/sec) (GF, 2014). Assuming a horizontal hydraulic gradient of 0.003 feet per foot (ft/ft) eastward and an effective porosity of 0.06, the estimated horizontal groundwater flow velocity at the refinery is approximately 0.01 foot per year (ft/yr) (GF, 2014).

In October 2011, Calumet Superior LLC (Calumet) acquired the refinery from Murphy Oil. In May 2014, the WDNR approved Calumet's April 2014 SI/RAP for the refinery (GF, 2014). In November 2017, Husky Superior Refining Holding Corp. (Husky Superior) purchased Calumet and changed its legal name to Superior Refining Company LLC. On April 4, 2018, the April 2014 SI/RAP became a component of the March 2018 Negotiated Agreement between SRC and the WDNR (WDNR/SRC, 2018). In January 2021, Husky and Cenovus Energy Inc. (Cenovus) merged to become Cenovus; however, the legal name of the refinery remains unchanged, and the Negotiated Agreement remains in effect.

In conjunction with the SI/RAP, an original network of 23 wells and eight piezometers was established for monitoring overall groundwater quality. Starting in 2015, all wells and piezometers in the network were gauged twice per year (to check for free product, track seasonal changes in water levels, and prepare groundwater contour map); 18 of the monitoring wells and the eight piezometers are purged and sampled; and the remaining five wells are gauged only. In 2022 the network of 23 wells was reduced to 22 wells as monitoring well MW-3/T50 was sealed; details are discussed below in Section 2.3. Monitoring MW-3/T50 was used for gauging purposes only. As summarized in Table 1, the sampled wells (18) and piezometers (8) are referred to as "perimeter" wells and the 4 monitoring wells that are gauged but not sampled are referred to as "other" wells. Also listed on Table 1 is a separate subset of 5 perimeter wells that are sampled once per year as part of the WDNR Groundwater and Environmental Monitoring System (GEMS) program, also referred to as "pond" wells.

Currently, long-term groundwater monitoring of the facility-wide monitoring network is being conducted twice a year in accordance with the Negotiated Agreement. This report presents monitoring data for 2022.

2 Monitoring Activities in 2022

Year-round access to the network of monitoring wells and piezometers at the refinery is not practical because of relatively shallow groundwater, cold weather, and snow. When conditions allow access, the monitoring wells and piezometers are gauged and the perimeter wells/piezometers are purged and sampled in the spring and fall (typically April/May and September/October). Since gauging began in 2016, no measurable free product has been observed in the wells and piezometers in the network. Monitoring and gauging activities conducted in 2022 are summarized in Table 2.

2.1 Groundwater Gauging

Groundwater samples were collected by Barr and Insight Environmental (Insight) field staff at the site during May and October 2022. Insight purged the perimeter wells/piezometers twice and allowed them to

recover for at least 14 days between purge events and prior to sample collection which was conducted on May 24-25 and October 12-13, 2022. Table 2 includes fluid level monitoring data for April through October 2022. No measurable free product was observed in the monitoring wells or piezometers.

The depth to groundwater in the monitoring wells ranged from 2.23 to 19.83 feet bgs. Each of the calculated vertical gradients were negative/downward and ranged from 0.04 to 0.50. Water level elevation data are presented in Table 2; negative vertical gradients are shown in parenthesis in red.

The measured groundwater elevations data indicates the direction of shallow groundwater flow is to the east (Figure 2), which is consistent with previously determined groundwater flow directions. Likewise, the average calculated horizontal hydraulic gradient of 0.004 ft/ft is consistent with those calculated in previous years.

2.2 Groundwater Sampling and Results

Groundwater samples were collected by Barr and Insight field staff at the site during May and October 2022. The perimeter wells/piezometers were purged using the modified purge method approved by the WDNR in 2015. Perimeter wells/piezometers are purged twice and allowed to recover for at least 14 days between purge events and prior to the collection of the samples. Field staff used a new one-time-use polyethylene disposable bailer with new nylon rope to collect each groundwater sample. The May 2022 and Fall 2022 groundwater samples were sent to Pace Analytical (Pace) in Minnesota, Minneapolis (Wisconsin laboratory certification #999407970); samples were analyzed for petroleum volatile organic compounds (PVOCs) and naphthalene using EPA Method 8260B. In addition, groundwater samples collected in October 2022 from the five GEMS (pond) wells (MW-1, MW-2, MW-3D, MW-8R, and MW-9B) were analyzed for VOCs (and select inorganics for the GEMS program, as described above).

Table 3 presents analytical results of the groundwater samples compared to the NR 140 Preventative Action Limits (PALs) and Enforcement Standards (ESs). Included in Table 3 are the results for PVOCs and naphthalene only; complete VOC and inorganic compound results for the five GEMS (pond) wells are submitted to the WDNR GEMS program staff in a separate report and included here in the attached laboratory report. As shown in Table 3, PVOC and naphthalene concentrations were all below their respective PALs in the groundwater samples collected in May and October 2022. In October 2022, the benzene concentration in monitoring well MW-1 was reported between the laboratory's detection and quantitation limits and flagged as certain quality control criteria was not met.

Attachment A provides copies of the laboratory reports and chain of custody records for the groundwater samples collected in 2022.

2.3 Monitoring Well Maintenance Activities

As previously reported (Barr, 2022), the 4-inch-diameter steel pipe that serves as a protective cover for MW-7 (constructed of 2-inch- diameter, Schedule 40 PVC) was bent during response activities associated with the April 2018 Incident. As a precautionary measure, SRC abandoned the well on September 1, 2022 and installed MW-7R as a replacement on October 27, 2022. The well abandonment form and well

construction log are included in Attachment B. Monitoring well MW-7R was surveyed on November 4, 2022; well survey information has been updated on Table 4. Due to the slow recharge of groundwater at the site the well will be developed in Spring 2023.

In 2021 the riser of PVC monitoring well MW-3/T50 was damaged. The PVC riser was broken off at the ground surface and no damage to the subsurface well riser occurred. On October 6, 2021, a PVC coupler was used to re-attach the riser. In 2022 the riser of the monitoring well was again damaged, and the monitoring well was sealed on September 1, 2022. The well abandonment form is included in Attachment B. Monitoring well MW-3/T50 was identified as an "other" well and only used for water level gauging from 2015 to 2020. Since this well was not used for sampling, and groundwater flow is well established for the facility, this well was not replaced.

A planned modifications to the Tank 26 berm and access road required monitoring well MW-19 to be moved. The well was sealed on September 1, 2022, and a replacement monitoring well MW-19R was installed approximately 120 feet to the southwest on October 28, 2022 (Figure 2). The well abandonment form and well construction log are included in Attachment B. Monitoring well MW-19R was surveyed on November 4, 2022 (Table 4). Due to the slow recharge of groundwater at the site the well will be developed in Spring 2023.

3 Future Work

SRC's work plan for 2023 is as follows:

- Develop monitoring well MW-7R and MW-19R prior to gauging and sampling in Spring 2023. Development forms will be completed submitted with the 2023 annual report.
- Continue to gauge fluid levels in the network monitoring wells and piezometers, and purge and sample all the perimeter wells/piezometers twice per year (April/May and September/October).
- Continue to submit groundwater samples for the following laboratory analysis:
 - PVOCS/naphthalene using EPA Method 8260 on a routine basis.
 - VOCs using EPA Method 8260B and select inorganics using EPA Method 6010 and Standard Method 2320B when monitoring the five GEMS (pond) wells once per year.
- Report the results of the groundwater gauging and sample analyses in a groundwater monitoring report to the WDNR by the end of the first quarter of 2024.

If you have any questions or need additional information, please reach out to Joseph Pearson at SRC (joseph.pearson@cenovus.com) or me (lcarney@barr.com).

Sincerely,



Lynette M. Carney
Project Manager

cc: Joseph Pearson (SRC)

Tables

- | | |
|---------|--|
| Table 1 | ERP Well Location, Designation, and Monitoring Parameter Summary |
| Table 2 | Fluid Level Monitoring Data |
| Table 3 | Groundwater Analytical Data Summary |
| Table 4 | ERP Well Elevations Summary |

Figures

- | | |
|----------|-------------------------------------|
| Figure 1 | Site Location |
| Figure 2 | Groundwater Contour Map, April 2022 |

Attachments

- | | |
|--------------|--|
| Attachment A | Pace Analytical Laboratory Reports |
| Attachment B | Monitoring Well Construction and Abandonment Forms |

References

- Barr Engineering Co., 2022. Facility-Wide Groundwater Monitoring Report for 2021, Superior Refining Company LLC, Superior, WI, WDNR BRRTS# 16-16-559511, Facility ID 816009590. January 4, 2022.
- Gannett Fleming, Inc. (GF), 2014. Final Memorandum of Agreement, Site Investigation and Remedial Action Plan, Calumet Superior LLC Refinery, Superior, WI, WDNR BRRTS# 02-16-559511. April 30, 2014.
- GF, 2019. Facility-Wide ERP Groundwater Monitoring Report for 2019, Superior Refining Company LLC, Superior, WI, WDNR BRRTS# 16-16-559511 and Facility ID: 816009590. November 18, 2019.
- Wisconsin Department of Natural Resources (WDNR) and Superior Refining Company LLC (SRC), 2018. Negotiated Agreement between SRC and WDNR with respect to a process for responding to petroleum hazardous substance discharges at SRC's Wisconsin facilities including both SRC's "South Tank Farm" property and the Superior refinery property [paraphrased for brevity]. March 15, 2018.

CERTIFICATION

I, Lynette M. Carney, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code; and that, to the best of my knowledge, all of the information contained in this document is correct, and the document was prepared in compliance with all applicable requirements in Chapters NR 700 to 726, Wis. Adm. Code.



Lynette M. Carney, PG
Reg #: 1138

March 27, 2023

Date

Tables

Table 1
 ERP Well Location, Designation, and Monitoring Parameter Summary
 Superior Refining Company LLC
 Superior, Wisconsin

Well Network		Well / Piezometer Location	Well / Piezometer Designation(s)			Monitoring Parameters		
Monitoring Well No.	Co-located Piezometer No.		Perimeter	Pond/GEMS	Other	Water Level (Spring and Autumn)	PVOC/Naphthalene (Spring and Autumn) (ERP)	VOCS (Autumn) (GEMS)
MW-1		NE corner of refinery	X	X		X	X	X
MW-1/T67		Tank 67 basin			X	X		
MW-2		NE corner of refinery	X	X		X	X	X
MW-2/T66	PZ-2/T66	SE of Tank 65 basin	X ¹		X ²	X		
MW-3D	PZ-3D	NE corner of refinery	X	X		X	X	X
MW-3/T50 ³		Tank 50 basin						
MW-5/T40		Tank 40 basin			X	X		
MW-5/T70		Tank 70 basin			X	X		
MW-7R		Central area of refinery	X			X	X	
MW-8R	PZ-8R	Tanks 106/112/114; SW corner of refinery	X	X		X	X	X
MW-9B		NW of Wastewater Treatment Plant	X	X		X	X	X
MW-11	PZ-11	Near intersection of Stinson & Bardon Av	X			X	X	
MW-12		South-central property boundary	X			X	X	
MW-13	PZ-13	South-central property boundary	X			X	X	
MW-14		South-central property boundary	X			X	X	
MW-15		North of refinery	X			X	X	
MW-16	PZ-16	NE corner of refinery	X			X	X	
MW-17	PZ-17	SE of Wastewater Treatment Plant	X			X	X	
MW-18		Near intersection of Stinson & Bardon Av	X			X	X	
MW-19R		South tank farm	X			X	X	
MW-20		South tank farm	X			X	X	
MW-21	PZ-21	South tank farm	X			X	X	
MW-22		South tank farm	X			X	X	

NOTES:

ERP = WDNR Environmental Repair Program

GEMS = WDNR Groundwater and Environmental Monitoring System

Other = wells that are routinely gauged but are not routinely purged and sampled.

WDNR = Wisconsin Department of Natural Resources

¹ Of this well/piezometer pair, only the piezometer, PZ-2/T66, is a perimeter well that is routinely purged and sampled

² Of this well/piezometer pair, only the well, MW-2/T66, is an "other" well and is not routinely purged or sampled

³ On September 1, 2022 monitoring well MW-3/T50 was sealed after it was damaged.

Table 2
Fluid Level Monitoring Data
ERP Wells and Piezometers (2016-2022)
Superior Refining Company LLC
Superior, Wisconsin

Description	Monitoring Well ID and Reference Information													
	MW-1	MW-1/T67	MW-2	MW-2/T66	PZ-2/T66	MW-3D	PZ-3D	MW-3/T50	MW-5/T40	MW-5/T70	MW-7	MW-8R	PZ-8R	MW-9B
Top of casing (ft MSL)	659.46	657.75	658.03	659.51	659.07	655.53	656.29	663.73	660.62	660.37	661.12	663.75	664.19	655.82
Ground surface (ft MSL)	655.43	656.41	654.99	657.01	656.30	653.79	653.49	659.96	658.03	657.86	659.59	661.45	661.38	654.38
Top of screen (ft MSL)	649.00	653.40	648.50	654.40	621.57	650.30	618.79	659.23	655.20	655.36	654.70	659.75	626.69	651.10
Bottom of well (ft MSL)	633.80	638.40	633.50	639.40	616.57	635.30	613.79	649.23	645.20	645.36	639.50	649.75	621.69	636.10
Measurement Date	Depth to Water from Top of Casing (feet)													
05/04/16	6.61	2.54	5.21	4.41	12.88	3.32	14.31	6.04	3.75	3.81	4.25	4.91	9.69	3.19
09/07/16	8.24	2.15	7.71	6.06	16.20	3.65	17.15	4.75	3.51	3.69	5.09	4.91	11.17	6.58
04/26/17	6.91	2.08	4.59	3.17	12.66	1.81	13.77	4.30	3.20	3.43	4.11	2.58	6.56	2.62
09/27/17	6.31	1.84	4.28	3.23	14.31	1.99	15.50	4.37	3.15	3.74	3.95	2.72	10.35	3.75
05/21/18	6.96	2.74	7.10	4.82	12.20	3.13	13.19	6.53	4.75	4.29	4.39	3.35	9.20	3.02
09/10/18	8.21	2.29	5.28	4.35	17.30	3.18	18.18	6.48	3.45	2.83	4.62	3.78	12.44	7.87
04/23/19	6.98	4.09	6.92	4.38	13.50	2.12	13.67	3.62	3.27	3.42	4.91	3.59	10.38	2.83
09/09/19	8.46	6.42	7.81	5.27	15.75	2.48	16.62	5.02	3.62	4.22	nm	5.06	10.46	7.68
04/28/20	6.91	2.74	5.34	4.01	13.07	2.48	13.50	5.44	3.61	3.61	4.02	3.71	9.29	2.91
05/12/20	6.78	2.68	5.67	4.83	25.20	3.74	30.10	4.19	4.20	4.43	3.98	4.12	32.30	3.35
05/27/20	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
07/16/20	nm	nm	nm	nm	nm	nm	nm	nm	nm	4.63	4.25	nm	nm	nm
09/10/20	8.93	2.51	7.19	5.59	16.04	4.56	16.66	8.01	4.08	4.62	4.62	5.03	11.19	7.20
09/24/20	13.52	2.71	10.43	5.94	34.87	5.69	35.67	7.71	6.92	4.56	9.07	9.42	31.67	7.00
10/06/20	14.82	nm	12.81	6.12	35.96	8.85	36.01	nm	7.49	4.68	nm	10.81	32.70	13.22
04/27/21	6.80	2.44	4.57	3.29	13.11	2.17	13.60	nm	3.46	3.75	4.60	2.54	9.53	2.89
05/10/21	7.19	2.75	5.78	4.83	27.56	3.75	25.45	nm	4.49	4.39	4.72	4.41	24.60	3.33
05/24/21	11.37	nm	7.31	4.42	35.91	2.43	34.93	nm	3.47	3.44	4.42	4.32	31.12	2.82
09/07/21	10.23	2.84	9.31	6.90	15.91	6.81	16.29	nm	4.54	4.58	6.57	5.61	10.75	9.07
09/21/21	4.01	2.53	13.07	4.00	36.01	10.41	34.97	nm	4.03	3.57	6.42	3.31	31.30	12.09
10/05/21	17.81	2.67	16.06	5.43	36.43	12.32	35.67	nm	3.66	4.21	5.72	3.61	32.73	14.17
04/25/22	6.02	2.23	5.40	4.01	15.30	2.31	14.12	nm	3.45	4.13	5.09	2.56	9.43	2.76
05/09/22	6.75	2.33	5.40	3.99	36.65	2.29	32.71	nm	3.50	4.02	5.22	2.65	27.65	2.81
05/24/22	6.77	2.40	4.87	4.46	37.60	2.93	26.45	nm	4.78	3.95	11.13	5.20	31.25	3.36
09/12/22	10.45	2.60	8.73	6.70	16.19	5.90	16.43	sealed	3.55	4.30	sealed	3.20	10.92	8.90
09/26/22	3.45	2.85	9.59	7.40	32.95	3.66	34.90	sealed	3.64	4.51	sealed	4.15	28.55	11.84
10/12/22	17.15	3.96	10.18	7.68	38.45	6.71	39.36	sealed	3.90	4.25	sealed	4.62	34.92	15.30
Water Elevation (ft MSL)														
05/04/16	652.85	655.21	652.82	655.10	646.19	652.21	641.98	657.69	656.87	656.56	656.87	658.84	654.50	652.63
09/07/16	651.22	655.60	650.32	653.45	642.87	651.88	639.14	658.98	657.11	656.68	656.03	658.84	653.02	649.24
04/26/17	652.55	655.67	653.44	656.34	646.41	653.72	642.52	659.43	657.42	656.94	657.01	661.17	657.63	653.20
09/27/17	653.15	655.91	653.75	656.28	644.76	653.54	640.79	659.36	657.47	656.63	657.17	661.03	653.84	652.07
05/21/18	652.50	655.01	650.93	654.69	646.87	652.40	643.10	657.20	655.87	656.08	656.73	660.40	654.99	652.80
09/10/18	651.25	655.46	652.75	655.16	641.77	652.35	638.11	657.25	657.17	657.54	656.50	659.97	651.75	647.95
04/23/19	652.48	653.66	651.11	655.13	645.57	653.41	642.62	660.11	657.35	656.95	656.21	660.16	653.81	652.99
09/09/19	651.00	651.33	650.22	654.24	643.32	653.05	639.67	658.71	657.00	656.15	nm	658.69	653.73	648.14
04/28/20	652.55	655.01	652.69	655.50	646.00	653.05	642.79	658.29	657.01	656.76	657.10	660.04	654.90	652.91
05/12/20	652.68	655.07	652.36	654.68	633.87	651.79	626.19	659.54	656.42	655.94	657.14	659.63	631.89	652.47
05/27/20	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
07/16/20	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
09/10/20	650.53	655.24	650.84	653.92	643.03	650.97	639.63	655.72	656.54	655.75	656.50	658.72	653.00	648.62
09/24/20	645.94	655.04	647.60	653.57	624.20	649.84	620.62	656.02	653.70	655.81	652.05	654.33	632.52	648.82
10/06/20	644.64	nm	645.22	653.39	623.11	646.68	620.28	nm	653.13	655.69	nm	652.94	631.49	642.60

Table 2
Fluid Level Monitoring Data
ERP Wells and Piezometers (2016-2022)
Superior Refining Company LLC
Superior, Wisconsin

Description	Monitoring Well ID and Reference Information													
	MW-1	MW-1/T67	MW-2	MW-2/T66	PZ-2/T66	MW-3D	PZ-3D	MW-3/T50	MW-5/T40	MW-5/T70	MW-7	MW-8R	PZ-8R	MW-9B
Top of casing (ft MSL)	659.46	657.75	658.03	659.51	659.07	655.53	656.29	663.73	660.62	660.37	661.12	663.75	664.19	655.82
Ground surface (ft MSL)	655.43	656.41	654.99	657.01	656.30	653.79	653.49	659.96	658.03	657.86	659.59	661.45	661.38	654.38
Top of screen (ft MSL)	649.00	653.40	648.50	654.40	621.57	650.30	618.79	659.23	655.20	655.36	654.70	659.75	626.69	651.10
Bottom of well (ft MSL)	633.80	638.40	633.50	639.40	616.57	635.30	613.79	649.23	645.20	645.36	639.50	649.75	621.69	636.10
04/27/21	652.66	655.31	653.46	656.22	645.96	653.36	642.69	nm	657.16	656.62	656.52	661.21	654.66	652.93
05/10/21	652.27	655.00	652.25	654.68	631.51	651.78	630.84	nm	656.13	655.98	656.40	659.34	639.59	652.49
05/24/21	648.09	nm	650.72	655.09	623.16	653.10	621.36	nm	657.15	656.93	656.70	659.43	633.07	653.00
09/07/21	649.23	654.91	648.72	652.61	643.16	648.72	640.00	nm	656.08	655.79	654.55	658.14	653.44	646.75
09/21/21	655.45	655.22	644.96	655.51	623.06	645.12	621.32	nm	656.59	656.80	654.70	660.44	632.89	643.73
10/05/21	641.65	655.08	641.97	654.08	622.64	643.21	620.63	nm	656.96	656.16	655.40	660.14	631.46	641.65
04/25/22	653.44	655.52	652.63	655.50	643.77	653.22	642.17	nm	657.17	656.24	656.03	661.19	654.76	653.06
05/09/22	652.71	655.42	652.63	655.52	622.42	653.24	623.58	nm	657.12	656.35	655.90	661.10	636.54	653.01
05/24/22	652.69	655.35	653.16	655.05	621.47	652.60	629.84	nm	655.84	656.42	649.99	658.55	632.94	652.46
09/12/22	649.01	655.15	649.30	652.81	642.88	649.63	639.86	sealed	657.07	656.07	sealed	660.55	653.27	646.92
09/26/22	656.01	654.90	648.44	652.11	626.12	651.87	621.39	sealed	656.98	655.86	sealed	659.60	635.64	643.98
10/12/22	642.31	653.79	647.85	651.83	620.62	648.82	616.93	sealed	656.72	656.12	sealed	659.13	629.27	640.52
Calculated Vertical Gradient														
05/04/16	--	--	--	--	(0.32)	--	(0.39)	--	--	--	--	--	(0.14)	--
09/07/16	--	--	--	--	(0.39)	--	(0.48)	--	--	--	--	--	(0.19)	--
04/26/17	--	--	--	--	(0.36)	--	(0.42)	--	--	--	--	--	(0.12)	--
09/27/17	--	--	--	--	(0.41)	--	(0.48)	--	--	--	--	--	(0.24)	--
05/21/18	--	--	--	--	(0.28)	--	(0.35)	--	--	--	--	--	(0.18)	--
09/10/18	--	--	--	--	(0.48)	--	(0.54)	--	--	--	--	--	(0.27)	--
04/23/19	--	--	--	--	(0.34)	--	(0.41)	--	--	--	--	--	(0.21)	--
09/09/19	--	--	--	--	(0.39)	--	(0.50)	--	--	--	--	--	(0.17)	--
04/28/20	--	--	--	--	(0.34)	--	(0.39)	--	--	--	--	--	(0.17)	--
09/10/20	--	--	--	--	(0.39)	--	(0.43)	--	--	--	--	--	(0.19)	--
04/27/21	--	--	--	--	(0.37)	--	(0.40)	--	--	--	--	--	(0.21)	--
09/07/21	--	--	--	--	(0.35)	--	(0.34)	--	--	--	--	--	(0.16)	--
04/25/22	--	--	--	--	(0.42)	--	(0.42)	--	--	--	--	--	(0.21)	--
09/12/22	--	--	--	--	(0.37)	--	(0.37)	--	--	--	--	--	(0.24)	--

Table 2
Fluid Level Monitoring Data
ERP Wells and Piezometers (2016-2022)
Superior Refining Company LLC
Superior, Wisconsin

Description	Monitoring Well ID and Reference Information																
	MW-11	PZ-11	MW-12	MW-13	PZ-13	MW-14	MW-15	MW-16	PZ-16	MW-17	PZ-17	MW-18	MW-19	MW-20	MW-21	PZ-21	MW-22
Top of casing (ft MSL)	654.98	655.25	656.70	659.10	658.97	661.16	659.89	658.85	658.65	654.30	654.58	651.89	658.94	659.06	659.29	659.52	659.19
Ground surface (ft MSL)	652.44	652.61	653.92	656.08	656.13	658.14	657.55	655.86	655.79	651.47	651.79	649.36	656.85	655.99	656.73	656.72	657.07
Top of screen (ft MSL)	647.7	617.8	649.0	651.3	621.5	653.1	654.4	653.4	621.2	648.8	617.1	646.4	653.4	653.6	653.8	622.0	653.7
Bottom of well (ft MSL)	632.7	612.8	634.0	636.3	616.5	638.1	639.4	638.4	616.2	633.8	612.1	631.4	638.4	638.6	638.8	617.0	638.7
Measurement Date	Depth to Water from Top of Casing (feet)																
05/04/16	4.42	12.01	4.30	4.46	11.70	4.39	3.65	3.40	16.96	5.09	13.91	4.72	3.65	4.49	3.76	11.62	4.26
09/07/16	7.51	12.55	9.05	9.02	12.48	4.57	3.44	5.56	20.57	5.40	16.86	5.98	4.59	4.60	4.80	12.96	5.91
04/26/17	3.16	11.49	4.78	3.71	11.42	2.48	2.88	3.31	16.43	4.91	13.75	2.85	2.36	3.78	4.49	11.25	2.62
09/27/17	3.70	11.71	4.22	3.53	11.55	3.52	3.00	3.31	18.98	4.93	15.69	3.10	2.31	3.41	3.11	12.02	2.69
05/21/18	3.90	11.22	5.27	5.09	11.08	8.47	2.08	3.31	16.22	6.40	13.30	4.71	3.61	4.67	3.82	11.15	3.80
09/10/18	9.46	12.45	5.43	3.95	12.91	3.81	3.46	5.05	22.96	4.60	18.85	4.91	4.30	4.76	7.05	13.29	4.95
04/23/19	5.16	11.20	5.12	6.29	11.14	8.67	3.04	7.60	16.40	4.89	13.56	3.42	2.31	3.56	4.21	11.62	3.24
09/09/19	9.72	11.62	6.40	11.12	12.10	4.00	6.19	6.44	18.92	6.02	16.04	4.72	3.69	4.96	4.68	13.06	4.72
04/28/20	3.42	11.45	5.63	4.42	12.06	6.15	3.37	3.36	16.51	4.33	3.31*	4.37	3.11	4.02	3.15	11.12	3.60
05/12/20	3.75	24.56	5.09	4.75	16.65	3.97	3.42	3.71	30.64	5.42	28.31	4.98	2.94	4.81	4.12	25.43	3.38
09/10/20	8.78	11.82	5.21	8.79	12.08	4.03	4.32	5.12	19.52	5.52	15.82	5.51	3.91	4.96	4.06	12.62	3.87
09/24/20	11.64	31.47	9.59	11.33	22.94	4.63	5.19	5.61	38.17	10.61	35.53	8.81	5.47	7.34	6.06	32.67	6.23
10/06/20	13.18	26.35	11.34	15.43	31.13	4.87	5.65	7.60	38.73	12.46	35.76	9.83	6.31	8.87	9.88	32.90	2.81
04/27/21	3.62	11.67	4.00	4.09	12.12	nm	3.21	3.41	16.34	3.56	14.71	3.36	2.51	3.95	3.10	11.49	3.40
05/10/21	4.24	16.86	5.35	5.01	28.07	6.52	3.46	3.71	29.58	7.62	30.10	4.79	3.71	5.05	4.03	31.21	4.23
05/24/21	5.15	30.42	5.15	4.26	32.13	3.77	3.16	3.51	34.16	3.53	31.02	3.80	2.42	5.10	3.26	33.27	5.52
09/07/21	10.42	11.65	9.52	12.43	12.14	4.15	7.06	7.48	19.74	6.88	15.84	6.14	6.48	6.99	6.88	13.07	6.12
09/21/21	13.21	29.83	9.45	15.50	28.57	3.80	4.77	9.65	36.50	4.10	35.15	3.71	7.29	4.45	9.02	32.27	6.14
10/04/21	15.00	30.75	9.79	18.27	31.95	4.01	5.85	10.47	38.65	7.13	36.67	4.55	8.21	3.80	10.11	33.71	9.62
04/25/22	5.53	12.17	3.95	4.15	12.97	nm ⁽¹⁾	3.50	3.41	16.52	4.22	13.82	3.53	2.70	3.93	3.74	11.61	2.92
05/09/22	3.43	26.92	3.69	3.99	29.22	6.04	3.45	3.51	38.02	9.38	34.95	3.45	2.51	4.02	3.74	33.63	3.04
05/24/22	3.73	32.85	4.15	4.15	33.08	4.31	3.40	3.60	38.95	11.15	37.60	3.46	2.39	4.17	4.77	35.22	4.83
09/12/22	10.21	12.23	6.55	12.05	12.90	4.05	9.10	6.60	19.83	4.95	16.16	5.85	sealed	6.56	6.63	13.30	6.70
09/26/22	13.60	26.31	10.10	14.94	23.75	5.05	5.89	7.81	38.19	9.45	32.90	5.65	sealed	7.66	9.61	26.66	9.02
10/12/22	15.52	33.93	13.16	13.90	31.85	5.35	7.10	8.85	40.67	12.57	39.02	6.72	sealed	9.31	12.05	31.20	13.05
	Water Elevation (ft MSL)																
05/04/16	650.56	643.24	652.40	654.64	647.27	656.77	656.24	655.45	641.69	649.21	640.67	647.17	655.29	654.57	655.53	647.90	654.93
09/07/16	647.47	642.70	647.65	650.08	646.49	656.59	656.45	653.29	638.08	648.90	637.72	645.91	654.35	654.46	654.49	646.56	653.28
04/26/17	651.82	643.76	651.92	655.39	647.55	658.68	657.01	655.54	642.22	649.39	640.83	649.04	656.58	655.28	654.80	648.27	656.57
09/27/17	651.28	643.54	652.48	655.57	647.42	657.64	656.89	655.54	639.67	649.37	638.89	648.79	656.63	655.65	656.18	647.50	656.50
05/21/18	651.08	644.03	651.43	654.01	647.89	652.69	657.81	655.54	642.43	647.90	641.28	647.18	655.33	654.39	655.47	648.37	655.39
09/10/18	645.52	642.80	651.27	655.15	646.06	657.35	656.43	653.80	635.69	649.70	635.73	646.98	654.64	654.30	652.24	646.23	654.24
04/23/19	649.82	644.05	651.58	652.81	647.83	652.49	656.85	651.25	642.25	649.41	641.02	648.47	656.63	655.50	655.08	647.90	655.95
09/09/19	645.26	643.63	650.30	647.98	646.87	657.16	653.70	652.41	639.73	648.28	638.54	647.17	655.25	654.10	654.61	646.46	654.47
04/28/20	651.56	643.80	651.07	654.68	646.91	655.01	656.52	655.49	642.14	649.97	3.31*	647.52	655.83	655.04	656.14	648.40	655.59
05/12/20	651.23	630.69	651.61	654.35	642.32	657.19	656.47	655.14	628.01	648.88	626.27	646.91	656.00	654.25	655.17	634.09	655.81
09/10/20	646.20	643.43	651.49	650.31	646.89	657.13	655.57	653.73	639.13	648.78	638.76	646.38	655.03	654.10	655.23	646.90	655.32
09/24/20	643.34	623.78	647.11	647.77	636.03	656.53	654.70	653.24	620.48	643.69	619.05	643.08	653.47	651.72	653.23	626.85	652.96
10/06/20	641.80	628.90	645.36	643.67	627.84	656.29	654.24	651.25	619.92	641.84	618.82	642.06	652.63	650.19	649.41	626.62	656.38

Table 2
Fluid Level Monitoring Data
ERP Wells and Piezometers (2016-2022)
Superior Refining Company LLC
Superior, Wisconsin

Description	Monitoring Well ID and Reference Information																
	MW-11	PZ-11	MW-12	MW-13	PZ-13	MW-14	MW-15	MW-16	PZ-16	MW-17	PZ-17	MW-18	MW-19	MW-20	MW-21	PZ-21	MW-22
Top of casing (ft MSL)	654.98	655.25	656.70	659.10	658.97	661.16	659.89	658.85	658.65	654.30	654.58	651.89	658.94	659.06	659.29	659.52	659.19
Ground surface (ft MSL)	652.44	652.61	653.92	656.08	656.13	658.14	657.55	655.86	655.79	651.47	651.79	649.36	656.85	655.99	656.73	656.72	657.07
Top of screen (ft MSL)	647.7	617.8	649.0	651.3	621.5	653.1	654.4	653.4	621.2	648.8	617.1	646.4	653.4	653.6	653.8	622.0	653.7
Bottom of well (ft MSL)	632.7	612.8	634.0	636.3	616.5	638.1	639.4	638.4	616.2	633.8	612.1	631.4	638.4	638.6	638.8	617.0	638.7
04/27/21	651.36	643.58	652.70	655.01	646.85	nm	656.68	655.44	642.31	650.74	639.87	648.53	656.43	655.11	656.19	648.03	655.79
05/10/21	650.74	638.39	651.35	654.09	630.90	654.64	656.43	655.14	629.07	646.68	624.48	647.10	655.23	654.01	655.26	628.31	654.96
05/24/21	649.83	624.83	651.55	654.84	626.84	657.39	656.73	655.34	624.49	650.77	623.56	648.09	656.52	653.96	656.03	626.25	653.67
09/07/21	644.56	643.60	647.18	646.67	646.83	657.01	652.83	651.37	638.91	647.42	638.74	645.75	652.46	652.07	652.41	646.45	653.07
09/21/21	641.77	625.42	647.25	643.60	630.40	657.36	655.12	649.20	622.15	650.20	619.43	648.18	651.65	654.61	650.27	627.25	653.05
10/04/21	639.98	624.50	646.91	640.83	627.02	657.15	654.04	648.38	620.00	647.17	617.91	647.34	650.73	655.26	649.18	625.81	649.57
04/25/22	649.45	643.08	652.75	654.95	646.00	nm ⁽¹⁾	656.39	655.44	642.13	650.08	640.76	648.36	656.24	655.13	655.55	647.91	656.27
05/09/22	651.55	628.33	653.01	655.11	629.75	655.12	656.44	655.34	620.63	644.92	619.63	648.44	656.43	655.04	655.55	625.89	656.15
05/24/22	651.25	622.40	652.55	654.95	625.89	656.85	656.49	655.25	619.70	643.15	616.98	648.43	656.55	654.89	654.52	624.30	654.36
09/12/22	644.77	643.02	650.15	647.05	646.07	657.11	650.79	652.25	638.82	649.35	638.42	646.04	sealed	652.50	652.66	646.22	652.49
09/26/22	641.38	628.94	646.60	644.16	635.22	656.11	654.00	651.04	620.46	644.85	621.68	646.24	sealed	651.40	649.68	632.86	650.17
10/12/22	639.46	621.32	643.54	645.20	627.12	655.81	652.79	650.00	617.98	641.73	615.56	645.17	sealed	649.75	647.24	628.32	646.14
Calculated Vertical Gradient																	
05/04/16	--	(0.29)	--	--	(0.30)	--	--	--	(0.51)	--	(0.32)	--	--	--	--	(0.29)	--
09/07/16	--	(0.19)	--	--	(0.15)	--	--	--	(0.56)	--	(0.42)	--	--	--	--	(0.30)	--
04/26/17	--	(0.32)	--	--	(0.32)	--	--	--	(0.49)	--	(0.32)	--	--	--	--	(0.24)	--
09/27/17	--	(0.31)	--	--	(0.33)	--	--	--	(0.58)	--	(0.39)	--	--	--	--	(0.32)	--
05/21/18	--	(0.28)	--	--	(0.25)	--	--	--	(0.48)	--	(0.25)	--	--	--	--	(0.27)	--
09/10/18	--	(0.11)	--	--	(0.37)	--	--	--	(0.67)	--	(0.52)	--	--	--	--	(0.23)	--
04/23/19	--	(0.23)	--	--	(0.20)	--	--	--	(0.34)	--	(0.31)	--	--	--	--	(0.27)	--
09/09/19	--	(0.07)	--	--	(0.05)	--	--	--	(0.47)	--	(0.37)	--	--	--	--	(0.30)	--
04/28/20	--	(0.31)	--	--	(0.31)	--	--	--	(0.49)	--	NC	--	--	--	--	(0.29)	--
09/10/20	--	(0.11)	--	--	(0.14)	--	--	--	(0.54)	--	(0.38)	--	--	--	--	(0.31)	--
04/27/21	--	(0.31)	--	--	(0.33)	--	--	--	(0.48)	--	(0.41)	--	--	--	--	(0.30)	--
09/07/21	--	(0.04)	--	--	0.01	--	--	--	(0.48)	--	(0.33)	--	--	--	--	(0.23)	--
04/25/22	--	(0.26)	--	--	(0.36)	--	--	--	(0.49)	--	(0.35)	--	--	--	--	(0.29)	--
09/12/22	--	(0.07)	--	--	(0.04)	--	--	--	(0.50)	--	(0.41)	--	--	--	--	(0.25)	--

NOTES:

Site datum = NAVD 88 feet above mean sea level (ft MSL). No measurable thickness of free product observed in any of the monitoring wells.

Negative/downward calculated vertical gradients are enclosed in parenthesis and (red).

NC - not calculated due to anomalous depth to water reading.

Free product has not been observed in the monitoring wells or piezometers since gauging began in 2016

-- = Not applicable.

FOOTNOTES:

* - anomalous data point; possible data recording error.

(1) = Well was frozen.

Table 3
Groundwater Analytical Data Summary
ERP Piezometers and Perimeter Wells
Superior Refining Company LLC
Superior, Wisconsin

Well ID Date	Substance Concentration ($\mu\text{g/l}$) and Results Qualifier (if any)						
	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	TMBs	Xylenes
NR 140 PAL	0.5	140	12	10	160	96	400
NR 140 ES	5.0	700	60	100	800	480	2,000
MW-1 (ERP and GEMS)							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/7/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/5/2016	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/25/2017	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/10/2018	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.30
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	0.14 J	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
MW-2 (ERP and GEMS)							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/7/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/5/2016	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/25/2017	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/10/2018	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.30
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
PZ-2/T66							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/25/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/13/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20

Table 3
Groundwater Analytical Data Summary
ERP Piezometers and Perimeter Wells
Superior Refining Company LLC
Superior, Wisconsin

Well ID Date	Substance Concentration ($\mu\text{g/l}$) and Results Qualifier (if any)						
	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	TMBs	Xylenes
NR 140 PAL	0.5	140	12	10	160	96	400
NR 140 ES	5.0	700	60	100	800	480	2,000
MW-3D (ERP and GEMS)⁽¹⁾							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/7/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/5/2016	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/25/2017	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/10/2018	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.30
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
PZ-3D							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/7/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
MW-7							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/7/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	1.9	< 0.67	< 0.98
2019	Well not sampled due to bent casing and suspect surface water infiltration						
2020	Well not sampled due to bent casing and suspect surface water infiltration						
2021	Well not sampled due to bent casing and suspect surface water infiltration						
5/25/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
Monitoring well MW-7 was abandoned on September 1, 2022.							

Table 3
Groundwater Analytical Data Summary
ERP Piezometers and Perimeter Wells
Superior Refining Company LLC
Superior, Wisconsin

Well ID Date	Substance Concentration ($\mu\text{g/l}$) and Results Qualifier (if any)						
	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	TMBs	Xylenes
NR 140 PAL	0.5	140	12	10	160	96	400
NR 140 ES	5.0	700	60	100	800	480	2,000
MW-8R (ERP and GEMS)							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/7/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/5/2016	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/25/2017	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/10/2018	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	0.31 a
5/25/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
PZ-8R							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/7/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/25/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
MW-9B (ERP and GEMS)⁽²⁾							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/7/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/5/2016	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/25/2017	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/10/2018	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.25	< 0.22	< 1.2	< 1.2	< 0.17	< 1.71	< 0.73
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.30
5/25/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20

Table 3
Groundwater Analytical Data Summary
ERP Piezometers and Perimeter Wells
Superior Refining Company LLC
Superior, Wisconsin

Well ID Date	Substance Concentration ($\mu\text{g/l}$) and Results Qualifier (if any)						
	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	TMBs	Xylenes
NR 140 PAL	0.5	140	12	10	160	96	400
NR 140 ES	5.0	700	60	100	800	480	2,000
MW-11							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/12/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	0.22 J	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
PZ-11							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/12/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
MW-12							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/16/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/12/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20

Table 3
Groundwater Analytical Data Summary
ERP Piezometers and Perimeter Wells
Superior Refining Company LLC
Superior, Wisconsin

Well ID Date	Substance Concentration ($\mu\text{g/l}$) and Results Qualifier (if any)						
	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	TMBs	Xylenes
NR 140 PAL	0.5	140	12	10	160	96	400
NR 140 ES	5.0	700	60	100	800	480	2,000
MW-13							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/16/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/12/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
PZ-13							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/16/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/12/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
MW-14							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/12/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	0.37 a	0.31 J
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20

Table 3
Groundwater Analytical Data Summary
ERP Piezometers and Perimeter Wells
Superior Refining Company LLC
Superior, Wisconsin

Well ID Date	Substance Concentration ($\mu\text{g/l}$) and Results Qualifier (if any)						
	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	TMBs	Xylenes
NR 140 PAL	0.5	140	12	10	160	96	400
NR 140 ES	5.0	700	60	100	800	480	2,000
MW-15							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
MW-16							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
PZ-16							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20

Table 3
Groundwater Analytical Data Summary
ERP Piezometers and Perimeter Wells
Superior Refining Company LLC
Superior, Wisconsin

Well ID Date	Substance Concentration ($\mu\text{g/l}$) and Results Qualifier (if any)						
	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	TMBs	Xylenes
NR 140 PAL	0.5	140	12	10	160	96	400
NR 140 ES	5.0	700	60	100	800	480	2,000
MW-17							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/25/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/13/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
PZ-17							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/25/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/13/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
MW-18							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/15/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/24/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/5/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/25/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/13/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20

Table 3
Groundwater Analytical Data Summary
ERP Piezometers and Perimeter Wells
Superior Refining Company LLC
Superior, Wisconsin

Well ID Date	Substance Concentration ($\mu\text{g/l}$) and Results Qualifier (if any)						
	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	TMBs	Xylenes
NR 140 PAL	0.5	140	12	10	160	96	400
NR 140 ES	5.0	700	60	100	800	480	2,000
MW-19							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/16/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/25/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
Monitoring well MW-19 was abandoned on September 1, 2022.							
MW-20							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/16/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/25/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
MW-21							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/16/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/25/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20

Table 3
Groundwater Analytical Data Summary
ERP Piezometers and Perimeter Wells
Superior Refining Company LLC
Superior, Wisconsin

Well ID Date	Substance Concentration ($\mu\text{g/l}$) and Results Qualifier (if any)						
	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	TMBs	Xylenes
NR 140 PAL	0.5	140	12	10	160	96	400
NR 140 ES	5.0	700	60	100	800	480	2,000
PZ-21							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/16/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/25/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
MW-22							
6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
10/6/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5
5/23/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/4/2016	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
5/16/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
10/24/2017	< 0.40	< 0.39	< 0.48	< 0.42	< 0.39	< 0.84	< 1.25
6/11/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/9/2018	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
5/20/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.49	< 0.67	< 0.98
10/8/2019	< 0.31	< 0.33	< 0.32	< 0.51	< 0.16	< 0.67	< 0.47
5/27/2020	< 0.25	< 0.32	< 1.2	< 1.2	< 0.27	< 1.71	< 1.5
10/5/2020	< 0.12	< 0.075	< 0.12	< 0.68	< 0.12	< 0.29	< 0.29
5/25/2021	< 0.30	< 0.33	< 1.1	< 1.1	< 0.29	< 0.81	< 1.0
10/4/2021	< 0.12	< 0.069	< 0.18	< 0.20	< 0.11	< 0.22	< 0.18
5/24/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20
10/12/2022	< 0.10	< 0.11	< 0.13	< 0.18	< 0.10	< 0.24	< 0.20

NOTES:

Concentrations are in micrograms per liter ($\mu\text{g/l}$). No results are at or above an NR 140 ES or PAL.

NR 140 ES = Wisconsin Administrative Code NR 140 Enforcement Standard; 7/1/2015.

NR 140 PAL = Wisconsin Administrative Code NR 140 Preventative Action Limit; 7/1/2015.

TMBs = Sum of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene.

MTBE = Methyl tert butyl ether.

PVOC = Petroleum Volatile Organic Compound

(1) MW-3D is a replacement for MW-3B.

(2) MW-9B is a replacement for MW-9.

a = Estimated value, calculated using some or all values that are estimates.

J = Estimated detected value. Either certain QC criteria were not met or the concentration is between the laboratory's detection and quantitation limits.

Table 4
 ERP Well Elevations Summary
 Superior Refining Company LLC
 Superior, Wisconsin

Well ID	Well Location	Well Diameter (inch)	Elevations		Screened Interval (ft MSL)	Total Depth (ft bgs)
			TOC (ft MSL)	Ground Surface (ft MSL)		
MW-1	NE corner of refinery	2	659.46	655.43	649.0-633.8	22.0
MW-1/T67	Tank 67 basin	2	657.75	656.41	653.4-638.4	18.0
MW-2	NE corner of refinery	2	658.03	654.99	648.5-633.5	22.0
MW-2/T66	SE of Tank 65 basin	2	659.51	657.01	654.4-630.4	18.0
PZ-2/T66	SE of Tank 65 basin	2	659.07	656.30	621.57-616.57	40.0
MW-3D	NE corner of refinery	2	655.53	653.79	650.3-635.3	18.9
PZ-3D	NE corner of refinery	2	656.29	653.49	618.79-613.79	40.0
MW-5/T40	Tank 40 basin	2	660.62	658.03	655.20-645.20	13.0
MW-5/T70	Tank 70 basin	2	660.37	657.86	655.39-645.36	13.0
MW-7R	Central area of refinery	2	662.17	659.64	655.4-645.4	14.2
MW-8R	Tanks 106/112/114; SW corner of refinery	2	663.75	661.45	659.75-649.75	13.0
PZ-8R	Tanks 106/112/114; SW corner of refinery	2	664.19	661.38	626.69-621.69	40.0
MW-9B	NW of Wastewater Treatment Plant	2	655.82	654.38	651.1-636.1	18.5
MW-11	Near intersection of Stinson & Bardon Av	2	654.98	652.44	647.7-632.7	20.0
PZ-11	Near intersection of Stinson & Bardon Av	2	655.25	652.61	617.8-612.8	40.0
MW-12	South-central property boundary	2	656.70	653.92	649.0-634.0	20.0
MW-13	South-central property boundary	2	659.10	656.08	651.3-636.3	20.0
PZ-13	South-central property boundary	2	658.97	656.13	621.5-616.5	40.0
MW-14	South-central property boundary	2	661.16	658.14	653.1-638.1	20.0
MW-15	North of refinery	2	659.89	657.55	654.4-639.4	18.0
MW-16	NE corner of refinery	2	658.85	655.86	653.4-638.4	18.0
PZ-16	NE corner of refinery	2	658.65	655.79	621.2-616.2	40.0
MW-17	SE of Wastewater Treatment Plant	2	654.30	651.47	648.8-633.8	18.0
PZ-17	SE of Wastewater Treatment Plant	2	654.58	651.79	617.1-612.1	40.0
MW-18	Near intersection of Stinson & Bardon Av	2	651.89	649.36	646.4-631.4	18.0
MW-19R	South tank farm	2	661.26	658.71	654.5-644.5	14.2
MW-20	South tank farm	2	659.06	655.99	653.6-638.6	18.0
MW-21	South tank farm	2	659.29	656.73	653.8-638.6	18.0
PZ-21	South tank farm	2	659.52	656.72	622.0-617.0	40.0
MW-22	South tank farm	2	659.19	657.07	653.7-638.7	18.0

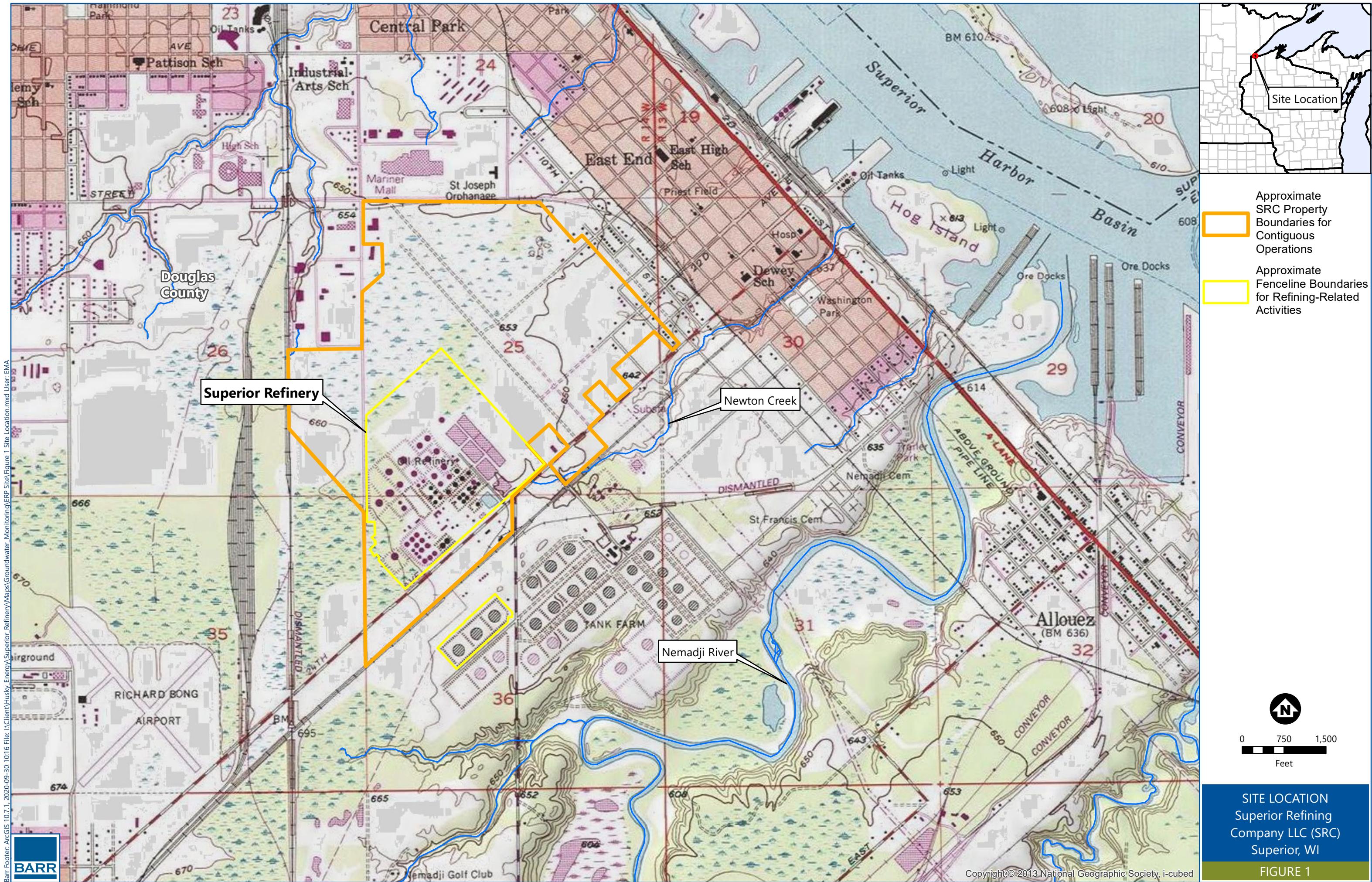
Notes:

TOC = Top of casing

ft MSL = feet above mean seal level

ft bgs = feet below ground surface

Figures





Attachments

Attachment A

Pace Analytical Laboratory Reports

Spring and Fall Reports

June 21, 2022

Jim Taraldsen
Barr Engineering Company
325 S Lake Ave
Duluth, MN 55802

RE: Project: 49161494.02 100 102 SRC GW ERP-Revised Report
Pace Project No.: 10610373

Dear Jim Taraldsen:

Enclosed are the analytical results for sample(s) received by the laboratory on May 27, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
• Pace Analytical Services - Minneapolis

This report was revised on June 21, 2022, to update the sample ID for Pace sample 10610373020.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Martha Hansen
martha.hansen@pacelabs.com
(612)607-6451
Project Manager

Enclosures

cc: Barr DM, Barr Engineering
Accounts Payable, Barr Engineering



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414	Missouri Certification #: 10100
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab	Montana Certification #: CERT0092
A2LA Certification #: 2926.01*	Nebraska Certification #: NE-OS-18-06
Alabama Certification #: 40770	Nevada Certification #: MN00064
Alaska Contaminated Sites Certification #: 17-009*	New Hampshire Certification #: 2081*
Alaska DW Certification #: MN00064	New Jersey Certification #: MN002
Arizona Certification #: AZ0014*	New York Certification #: 11647*
Arkansas DW Certification #: MN00064	North Carolina DW Certification #: 27700
Arkansas WW Certification #: 88-0680	North Carolina WW Certification #: 530
California Certification #: 2929	North Dakota Certification (A2LA) #: R-036
Colorado Certification #: MN00064	North Dakota Certification (MN) #: R-036
Connecticut Certification #: PH-0256	Ohio DW Certification #: 41244
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137	Ohio VAP Certification (1700) #: CL101
Florida Certification #: E87605*	Ohio VAP Certification (1800) #: CL110*
Georgia Certification #: 959	Oklahoma Certification #: 9507*
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001*
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563*
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192*
Kentucky WW Certification #: 90062	Utah Certification #: MN00064*
Louisiana DEQ Certification #: AI-03086*	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163*
Maine Certification #: MN00064*	Washington Certification #: C486*
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Michigan Certification #: 9909	West Virginia DW Certification #: 9952 C
Minnesota Certification #: 027-053-137*	Wisconsin Certification #: 999407970
Minnesota Dept of Ag Approval: via MN 027-053-137	Wyoming UST Certification #: via A2LA 2926.01
Minnesota Petrofund Registration #: 1240*	USDA Permit #: P330-19-00208
Mississippi Certification #: MN00064	*Please Note: Applicable air certifications are denoted with an asterisk (*).

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE SUMMARY

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10610373001	MW-11	Water	05/24/22 11:05	05/27/22 15:05
10610373002	PZ-11	Water	05/24/22 11:08	05/27/22 15:05
10610373003	MW-12	Water	05/24/22 11:25	05/27/22 15:05
10610373004	MW-13	Water	05/24/22 11:37	05/27/22 15:05
10610373005	PZ-13	Water	05/24/22 11:42	05/27/22 15:05
10610373006	MW-14	Water	05/24/22 11:57	05/27/22 15:05
10610373007	MW-20	Water	05/24/22 12:50	05/27/22 15:05
10610373008	MW-21	Water	05/24/22 13:00	05/27/22 15:05
10610373009	MW-19	Water	05/24/22 13:15	05/27/22 15:05
10610373010	MW-22	Water	05/24/22 13:32	05/27/22 15:05
10610373011	MW-15	Water	05/24/22 14:05	05/27/22 15:05
10610373012	MW-1	Water	05/24/22 14:15	05/27/22 15:05
10610373013	MW-16	Water	05/24/22 14:25	05/27/22 15:05
10610373014	PZ-16	Water	05/24/22 14:32	05/27/22 15:05
10610373015	MW-2	Water	05/24/22 14:38	05/27/22 15:05
10610373016	MW-3D	Water	05/24/22 14:46	05/27/22 15:05
10610373017	PZ-3D	Water	05/24/22 14:50	05/27/22 15:05
10610373018	PZ-21	Water	05/24/22 13:05	05/27/22 15:05
10610373019	MW-7	Water	05/25/22 08:00	05/27/22 15:05
10610373020	MW-9B	Water	05/25/22 09:55	05/27/22 15:05
10610373021	MW-17	Water	05/25/22 10:07	05/27/22 15:05
10610373022	PZ-17	Water	05/25/22 10:14	05/27/22 15:05
10610373023	MW-18	Water	05/25/22 10:25	05/27/22 15:05
10610373024	PZ-2/T66	Water	05/25/22 10:37	05/27/22 15:05
10610373025	MW-8R	Water	05/25/22 10:55	05/27/22 15:05
10610373026	PZ-8R	Water	05/25/22 11:00	05/27/22 15:05
10610373027	Trip Blank	Water	05/24/22 00:00	05/27/22 15:05

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE ANALYTE COUNT

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10610373001	MW-11	EPA 8260D	TKL	11	PASI-M
10610373002	PZ-11	EPA 8260D	TKL	11	PASI-M
10610373003	MW-12	EPA 8260D	NMB	11	PASI-M
10610373004	MW-13	EPA 8260D	NMB	11	PASI-M
10610373005	PZ-13	EPA 8260D	NMB	11	PASI-M
10610373006	MW-14	EPA 8260D	NMB	11	PASI-M
10610373007	MW-20	EPA 8260D	NMB	11	PASI-M
10610373008	MW-21	EPA 8260D	NMB	11	PASI-M
10610373009	MW-19	EPA 8260D	NMB	11	PASI-M
10610373010	MW-22	EPA 8260D	NMB	11	PASI-M
10610373011	MW-15	EPA 8260D	NMB	11	PASI-M
10610373012	MW-1	EPA 8260D	NMB	11	PASI-M
10610373013	MW-16	EPA 8260D	NMB	11	PASI-M
10610373014	PZ-16	EPA 8260D	NMB	11	PASI-M
10610373015	MW-2	EPA 8260D	NMB	11	PASI-M
10610373016	MW-3D	EPA 8260D	NMB	11	PASI-M
10610373017	PZ-3D	EPA 8260D	NMB	11	PASI-M
10610373018	PZ-21	EPA 8260D	NMB	11	PASI-M
10610373019	MW-7	EPA 8260D	NMB	11	PASI-M
10610373020	MW-9B	EPA 8260D	NMB	11	PASI-M
10610373021	MW-17	EPA 8260D	NMB	11	PASI-M
10610373022	PZ-17	EPA 8260D	NMB	11	PASI-M
10610373023	MW-18	EPA 8260D	NMB	11	PASI-M
10610373024	PZ-2/T66	EPA 8260D	NMB	11	PASI-M
10610373025	MW-8R	EPA 8260D	NMB	11	PASI-M
10610373026	PZ-8R	EPA 8260D	NMB	11	PASI-M
10610373027	Trip Blank	EPA 8260D	NMB	11	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-11	Lab ID: 10610373001	Collected: 05/24/22 11:05	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/07/22 02:18	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/07/22 02:18	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/07/22 02:18	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/07/22 02:18	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/07/22 02:18	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/07/22 02:18	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/07/22 02:18	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/07/22 02:18	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		06/07/22 02:18	2199-69-1	
4-Bromofluorobenzene (S)	106	%.	75-125		1		06/07/22 02:18	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		06/07/22 02:18	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: PZ-11	Lab ID: 10610373002	Collected: 05/24/22 11:08	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/07/22 02:33	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/07/22 02:33	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/07/22 02:33	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/07/22 02:33	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/07/22 02:33	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/07/22 02:33	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/07/22 02:33	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/07/22 02:33	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		06/07/22 02:33	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		06/07/22 02:33	460-00-4	
Toluene-d8 (S)	99	%.	75-125		1		06/07/22 02:33	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-12 **Lab ID: 10610373003** Collected: 05/24/22 11:25 Received: 05/27/22 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 15:59	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 15:59	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 15:59	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 15:59	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 15:59	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 15:59	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 15:59	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 15:59	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		05/28/22 15:59	2199-69-1	
4-Bromofluorobenzene (S)	104	%.	75-125		1		05/28/22 15:59	460-00-4	
Toluene-d8 (S)	108	%.	75-125		1		05/28/22 15:59	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-13	Lab ID: 10610373004	Collected: 05/24/22 11:37	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 16:14	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 16:14	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 16:14	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 16:14	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 16:14	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 16:14	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 16:14	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 16:14	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	102	%.	75-125		1		05/28/22 16:14	2199-69-1	
4-Bromofluorobenzene (S)	103	%.	75-125		1		05/28/22 16:14	460-00-4	
Toluene-d8 (S)	104	%.	75-125		1		05/28/22 16:14	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: PZ-13	Lab ID: 10610373005	Collected: 05/24/22 11:42	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 16:29	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 16:29	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 16:29	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 16:29	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 16:29	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 16:29	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 16:29	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 16:29	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		05/28/22 16:29	2199-69-1	
4-Bromofluorobenzene (S)	106	%.	75-125		1		05/28/22 16:29	460-00-4	
Toluene-d8 (S)	104	%.	75-125		1		05/28/22 16:29	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-14 **Lab ID: 10610373006** Collected: 05/24/22 11:57 Received: 05/27/22 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 16:43	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 16:43	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 16:43	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 16:43	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 16:43	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 16:43	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 16:43	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 16:43	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		05/28/22 16:43	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		05/28/22 16:43	460-00-4	
Toluene-d8 (S)	106	%.	75-125		1		05/28/22 16:43	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-20 **Lab ID: 10610373007** Collected: 05/24/22 12:50 Received: 05/27/22 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 16:58	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 16:58	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 16:58	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 16:58	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 16:58	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 16:58	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 16:58	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 16:58	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		05/28/22 16:58	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		05/28/22 16:58	460-00-4	
Toluene-d8 (S)	105	%.	75-125		1		05/28/22 16:58	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-21 **Lab ID: 10610373008** Collected: 05/24/22 13:00 Received: 05/27/22 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 17:13	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 17:13	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 17:13	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 17:13	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 17:13	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 17:13	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 17:13	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 17:13	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		05/28/22 17:13	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		05/28/22 17:13	460-00-4	
Toluene-d8 (S)	103	%.	75-125		1		05/28/22 17:13	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-19	Lab ID: 10610373009	Collected: 05/24/22 13:15	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 17:28	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 17:28	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 17:28	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 17:28	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 17:28	108-88-3	M1
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 17:28	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 17:28	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 17:28	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		05/28/22 17:28	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		05/28/22 17:28	460-00-4	
Toluene-d8 (S)	106	%.	75-125		1		05/28/22 17:28	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-22 **Lab ID: 10610373010** Collected: 05/24/22 13:32 Received: 05/27/22 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 17:43	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 17:43	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 17:43	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 17:43	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 17:43	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 17:43	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 17:43	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 17:43	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		05/28/22 17:43	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		05/28/22 17:43	460-00-4	
Toluene-d8 (S)	106	%.	75-125		1		05/28/22 17:43	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-15	Lab ID: 10610373011	Collected: 05/24/22 14:05	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 17:58	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 17:58	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 17:58	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 17:58	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 17:58	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 17:58	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 17:58	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 17:58	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		05/28/22 17:58	2199-69-1	
4-Bromofluorobenzene (S)	101	%.	75-125		1		05/28/22 17:58	460-00-4	
Toluene-d8 (S)	107	%.	75-125		1		05/28/22 17:58	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-1	Lab ID: 10610373012	Collected: 05/24/22 14:15	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 18:13	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 18:13	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 18:13	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 18:13	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 18:13	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 18:13	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 18:13	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 18:13	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		05/28/22 18:13	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		05/28/22 18:13	460-00-4	
Toluene-d8 (S)	107	%.	75-125		1		05/28/22 18:13	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-16	Lab ID: 10610373013	Collected: 05/24/22 14:25	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 18:28	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 18:28	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 18:28	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 18:28	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 18:28	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 18:28	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 18:28	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 18:28	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	102	%.	75-125		1		05/28/22 18:28	2199-69-1	
4-Bromofluorobenzene (S)	101	%.	75-125		1		05/28/22 18:28	460-00-4	
Toluene-d8 (S)	105	%.	75-125		1		05/28/22 18:28	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: PZ-16	Lab ID: 10610373014	Collected: 05/24/22 14:32	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 18:42	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 18:42	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 18:42	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 18:42	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 18:42	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 18:42	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 18:42	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 18:42	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		05/28/22 18:42	2199-69-1	
4-Bromofluorobenzene (S)	103	%.	75-125		1		05/28/22 18:42	460-00-4	
Toluene-d8 (S)	105	%.	75-125		1		05/28/22 18:42	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-2	Lab ID: 10610373015	Collected: 05/24/22 14:38	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 18:57	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 18:57	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 18:57	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 18:57	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 18:57	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 18:57	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 18:57	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 18:57	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		05/28/22 18:57	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		05/28/22 18:57	460-00-4	
Toluene-d8 (S)	106	%.	75-125		1		05/28/22 18:57	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-3D	Lab ID: 10610373016	Collected: 05/24/22 14:46	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 19:12	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 19:12	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 19:12	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 19:12	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 19:12	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 19:12	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 19:12	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 19:12	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		05/28/22 19:12	2199-69-1	
4-Bromofluorobenzene (S)	107	%.	75-125		1		05/28/22 19:12	460-00-4	
Toluene-d8 (S)	106	%.	75-125		1		05/28/22 19:12	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: PZ-3D	Lab ID: 10610373017	Collected: 05/24/22 14:50	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 19:27	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 19:27	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 19:27	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 19:27	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 19:27	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 19:27	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 19:27	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 19:27	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	103	%.	75-125		1		05/28/22 19:27	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		05/28/22 19:27	460-00-4	
Toluene-d8 (S)	106	%.	75-125		1		05/28/22 19:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: PZ-21 **Lab ID: 10610373018** Collected: 05/24/22 13:05 Received: 05/27/22 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/28/22 19:42	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 19:42	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/28/22 19:42	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/28/22 19:42	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/28/22 19:42	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/28/22 19:42	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/28/22 19:42	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/28/22 19:42	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		05/28/22 19:42	2199-69-1	
4-Bromofluorobenzene (S)	101	%.	75-125		1		05/28/22 19:42	460-00-4	
Toluene-d8 (S)	106	%.	75-125		1		05/28/22 19:42	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-7	Lab ID: 10610373019	Collected: 05/25/22 08:00	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/02/22 16:42	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 16:42	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/02/22 16:42	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/02/22 16:42	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/02/22 16:42	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/02/22 16:42	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 16:42	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/02/22 16:42	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	102	%.	75-125		1		06/02/22 16:42	2199-69-1	
4-Bromofluorobenzene (S)	103	%.	75-125		1		06/02/22 16:42	460-00-4	
Toluene-d8 (S)	102	%.	75-125		1		06/02/22 16:42	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-9B	Lab ID: 10610373020	Collected: 05/25/22 09:55	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/02/22 16:57	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 16:57	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/02/22 16:57	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/02/22 16:57	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/02/22 16:57	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/02/22 16:57	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 16:57	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/02/22 16:57	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		06/02/22 16:57	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		06/02/22 16:57	460-00-4	
Toluene-d8 (S)	102	%.	75-125		1		06/02/22 16:57	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-17	Lab ID: 10610373021	Collected: 05/25/22 10:07	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/02/22 17:28	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 17:28	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/02/22 17:28	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/02/22 17:28	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/02/22 17:28	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/02/22 17:28	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 17:28	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/02/22 17:28	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		06/02/22 17:28	2199-69-1	
4-Bromofluorobenzene (S)	101	%.	75-125		1		06/02/22 17:28	460-00-4	
Toluene-d8 (S)	102	%.	75-125		1		06/02/22 17:28	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: PZ-17 **Lab ID: 10610373022** Collected: 05/25/22 10:14 Received: 05/27/22 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/02/22 17:13	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 17:13	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/02/22 17:13	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/02/22 17:13	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/02/22 17:13	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/02/22 17:13	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 17:13	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/02/22 17:13	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	102	%.	75-125		1		06/02/22 17:13	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		06/02/22 17:13	460-00-4	
Toluene-d8 (S)	102	%.	75-125		1		06/02/22 17:13	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-18	Lab ID: 10610373023	Collected: 05/25/22 10:25	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/02/22 20:51	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 20:51	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/02/22 20:51	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/02/22 20:51	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/02/22 20:51	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/02/22 20:51	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 20:51	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/02/22 20:51	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		06/02/22 20:51	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		06/02/22 20:51	460-00-4	
Toluene-d8 (S)	102	%.	75-125		1		06/02/22 20:51	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: PZ-2/T66 Lab ID: 10610373024 Collected: 05/25/22 10:37 Received: 05/27/22 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/02/22 21:06	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 21:06	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/02/22 21:06	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/02/22 21:06	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/02/22 21:06	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/02/22 21:06	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 21:06	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/02/22 21:06	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	102	%.	75-125		1		06/02/22 21:06	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		06/02/22 21:06	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		06/02/22 21:06	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: MW-8R	Lab ID: 10610373025	Collected: 05/25/22 10:55	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/02/22 21:22	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 21:22	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/02/22 21:22	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/02/22 21:22	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/02/22 21:22	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/02/22 21:22	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 21:22	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/02/22 21:22	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	103	%.	75-125		1		06/02/22 21:22	2199-69-1	
4-Bromofluorobenzene (S)	102	%.	75-125		1		06/02/22 21:22	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		06/02/22 21:22	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: PZ-8R **Lab ID: 10610373026** Collected: 05/25/22 11:00 Received: 05/27/22 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		06/02/22 21:37	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 21:37	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		06/02/22 21:37	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		06/02/22 21:37	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		06/02/22 21:37	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		06/02/22 21:37	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		06/02/22 21:37	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		06/02/22 21:37	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	101	%.	75-125		1		06/02/22 21:37	2199-69-1	
4-Bromofluorobenzene (S)	101	%.	75-125		1		06/02/22 21:37	460-00-4	
Toluene-d8 (S)	102	%.	75-125		1		06/02/22 21:37	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Sample: Trip Blank	Lab ID: 10610373027	Collected: 05/24/22 00:00	Received: 05/27/22 15:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		05/31/22 13:41	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		05/31/22 13:41	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		05/31/22 13:41	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		05/31/22 13:41	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		05/31/22 13:41	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		05/31/22 13:41	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		05/31/22 13:41	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		05/31/22 13:41	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		05/31/22 13:41	2199-69-1	
4-Bromofluorobenzene (S)	104	%.	75-125		1		05/31/22 13:41	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		05/31/22 13:41	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

QC Batch: 818275 Analysis Method: EPA 8260D

QC Batch Method: EPA 8260D Analysis Description: 8260D MSV UST-WATER

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10610373003, 10610373004, 10610373005, 10610373006, 10610373007, 10610373008, 10610373009, 10610373010, 10610373011, 10610373012, 10610373013, 10610373014, 10610373015, 10610373016, 10610373017, 10610373018

METHOD BLANK: 4336977

Matrix: Water

Associated Lab Samples: 10610373003, 10610373004, 10610373005, 10610373006, 10610373007, 10610373008, 10610373009, 10610373010, 10610373011, 10610373012, 10610373013, 10610373014, 10610373015, 10610373016, 10610373017, 10610373018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	05/28/22 14:45	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	05/28/22 14:45	
Benzene	ug/L	<0.10	1.0	05/28/22 14:45	
Ethylbenzene	ug/L	<0.11	1.0	05/28/22 14:45	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	05/28/22 14:45	
Naphthalene	ug/L	<0.18	1.0	05/28/22 14:45	
Toluene	ug/L	<0.10	1.0	05/28/22 14:45	
Xylene (Total)	ug/L	<0.20	3.0	05/28/22 14:45	
1,2-Dichlorobenzene-d4 (S)	%.	99	75-125	05/28/22 14:45	
4-Bromofluorobenzene (S)	%.	103	75-125	05/28/22 14:45	
Toluene-d8 (S)	%.	109	75-125	05/28/22 14:45	

LABORATORY CONTROL SAMPLE: 4336978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	18.7	93	75-125	
1,3,5-Trimethylbenzene	ug/L	20	18.7	94	75-125	
Benzene	ug/L	20	16.7	83	73-125	
Ethylbenzene	ug/L	20	17.9	89	75-125	
Methyl-tert-butyl ether	ug/L	20	17.9	90	75-125	
Naphthalene	ug/L	20	21.6	108	66-127	
Toluene	ug/L	20	16.1	80	74-125	
Xylene (Total)	ug/L	60	54.6	91	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			102	75-125	
4-Bromofluorobenzene (S)	%.			102	75-125	
Toluene-d8 (S)	%.			94	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4338094 4338095

Parameter	Units	MS 10610373009	MSD Spike Conc.	% Rec Limits	RPD	Max RPD	Qual						
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	RPD	RPD
1,2,4-Trimethylbenzene	ug/L	<0.13	20	20	16.5	16.1	82	81	62-138	2	30		
1,3,5-Trimethylbenzene	ug/L	<0.11	20	20	16.2	16.2	81	81	64-135	0	30		
Benzene	ug/L	<0.10	20	20	17.0	17.4	85	87	65-140	3	30		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4338094		4338095									
Parameter	Units	MS		MSD		MS		MSD		% Rec		Max	
		10610373009	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Qual	
Ethylbenzene	ug/L	<0.11	20	20	17.1	17.5	86	87	66-126	2	30		
Methyl-tert-butyl ether	ug/L	<0.13	20	20	18.6	17.5	93	87	65-137	6	30		
Naphthalene	ug/L	<0.18	20	20	16.8	16.2	84	81	56-141	4	30		
Toluene	ug/L	<0.10	20	20	16.9	13.4	84	67	69-131	23	30	M1	
Xylene (Total)	ug/L	<0.20	60	60	50.3	50.3	84	84	68-136	0	30		
1,2-Dichlorobenzene-d4 (S)	%.						102	101	75-125				
4-Bromofluorobenzene (S)	%.						105	107	75-125				
Toluene-d8 (S)	%.						101	81	75-125				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

QC Batch:	818549	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV UST-WATER
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10610373027

METHOD BLANK: 4338200 Matrix: Water

Associated Lab Samples: 10610373027

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	05/31/22 13:10	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	05/31/22 13:10	
Benzene	ug/L	<0.10	1.0	05/31/22 13:10	
Ethylbenzene	ug/L	<0.11	1.0	05/31/22 13:10	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	05/31/22 13:10	
Naphthalene	ug/L	<0.18	1.0	05/31/22 13:10	
Toluene	ug/L	<0.10	1.0	05/31/22 13:10	
Xylene (Total)	ug/L	<0.20	3.0	05/31/22 13:10	
1,2-Dichlorobenzene-d4 (S)	%.	102	75-125	05/31/22 13:10	
4-Bromofluorobenzene (S)	%.	103	75-125	05/31/22 13:10	
Toluene-d8 (S)	%.	100	75-125	05/31/22 13:10	

LABORATORY CONTROL SAMPLE: 4338201

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	18.6	93	75-125	
1,3,5-Trimethylbenzene	ug/L	20	18.5	92	75-125	
Benzene	ug/L	20	17.6	88	73-125	
Ethylbenzene	ug/L	20	18.7	94	75-125	
Methyl-tert-butyl ether	ug/L	20	22.4	112	75-125	
Naphthalene	ug/L	20	19.7	99	66-127	
Toluene	ug/L	20	18.2	91	74-125	
Xylene (Total)	ug/L	60	55.8	93	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			101	75-125	
4-Bromofluorobenzene (S)	%.			103	75-125	
Toluene-d8 (S)	%.			101	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4338202 4338203

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		10609369014	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
1,2,4-Trimethylbenzene	ug/L	1.0	20	20	17.5	18.3	82	87	62-138	5	30		
1,3,5-Trimethylbenzene	ug/L	1.4	20	20	18.1	18.8	83	87	64-135	4	30		
Benzene	ug/L	93.2	20	20	112	113	95	99	65-140	1	30		
Ethylbenzene	ug/L	0.36J	20	20	16.9	17.7	83	86	66-126	4	30		
Methyl-tert-butyl ether	ug/L	6.2	20	20	25.2	25.9	95	99	65-137	3	30		
Naphthalene	ug/L	0.35J	20	20	18.7	19.5	92	96	56-141	5	30		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4338202		4338203									
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10609369014	Spike Conc.	Spike Conc.	MS Result								
Toluene	ug/L	4.4	20	20	20.7	21.3	82	84	69-131	2	30		
Xylene (Total)	ug/L	8.0	60	60	57.1	59.1	82	85	68-136	3	30		
1,2-Dichlorobenzene-d4 (S)	%.					100		103	75-125				
4-Bromofluorobenzene (S)	%.					104		103	75-125				
Toluene-d8 (S)	%.					102		102	75-125				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

QC Batch:	819119	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV UST-WATER
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10610373019, 10610373020, 10610373021, 10610373022

METHOD BLANK: 4340542 Matrix: Water

Associated Lab Samples: 10610373019, 10610373020, 10610373021, 10610373022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	06/02/22 12:33	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	06/02/22 12:33	
Benzene	ug/L	<0.10	1.0	06/02/22 12:33	
Ethylbenzene	ug/L	<0.11	1.0	06/02/22 12:33	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	06/02/22 12:33	
Naphthalene	ug/L	<0.18	1.0	06/02/22 12:33	
Toluene	ug/L	<0.10	1.0	06/02/22 12:33	
Xylene (Total)	ug/L	<0.20	3.0	06/02/22 12:33	
1,2-Dichlorobenzene-d4 (S)	%.	102	75-125	06/02/22 12:33	
4-Bromofluorobenzene (S)	%.	97	75-125	06/02/22 12:33	
Toluene-d8 (S)	%.	100	75-125	06/02/22 12:33	

LABORATORY CONTROL SAMPLE: 4340543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	17.3	87	75-125	
1,3,5-Trimethylbenzene	ug/L	20	17.6	88	75-125	
Benzene	ug/L	20	18.7	94	73-125	
Ethylbenzene	ug/L	20	18.9	94	75-125	
Methyl-tert-butyl ether	ug/L	20	19.3	97	75-125	
Naphthalene	ug/L	20	17.4	87	66-127	
Toluene	ug/L	20	18.7	93	74-125	
Xylene (Total)	ug/L	60	56.4	94	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			99	75-125	
4-Bromofluorobenzene (S)	%.			102	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4340545 4340546

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		10610814001	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
1,2,4-Trimethylbenzene	ug/L	ND	100	100	74.0	78.5	74	79	62-138	6	30		
1,3,5-Trimethylbenzene	ug/L	ND	100	100	72.6	77.4	73	77	64-135	6	30		
Benzene	ug/L	ND	100	100	80.2	83.8	80	84	65-140	4	30		
Ethylbenzene	ug/L	ND	100	100	78.5	83.9	78	84	66-126	7	30		
Methyl-tert-butyl ether	ug/L	ND	100	100	84.2	90.3	84	90	65-137	7	30		
Naphthalene	ug/L	ND	100	100	76.0	86.3	76	86	56-141	13	30		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4340545		4340546									
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Max Qual
		10610814001	Spike Conc.	Spike Conc.	MS Result								
Toluene	ug/L	ND	100	100	79.7	83.7	80	84	69-131	5	30		
Xylene (Total)	ug/L	ND	300	300	236	251	79	84	68-136	6	30		
1,2-Dichlorobenzene-d4 (S)	%.					101	101	75-125					1M
4-Bromofluorobenzene (S)	%.					102	103	75-125					
Toluene-d8 (S)	%.					103	102	75-125					

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

QC Batch:	819185	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV UST-WATER
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10610373023, 10610373024, 10610373025, 10610373026

METHOD BLANK: 4340777 Matrix: Water

Associated Lab Samples: 10610373023, 10610373024, 10610373025, 10610373026

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	06/02/22 20:19	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	06/02/22 20:19	
Benzene	ug/L	<0.10	1.0	06/02/22 20:19	
Ethylbenzene	ug/L	<0.11	1.0	06/02/22 20:19	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	06/02/22 20:19	
Naphthalene	ug/L	<0.18	1.0	06/02/22 20:19	
Toluene	ug/L	<0.10	1.0	06/02/22 20:19	
Xylene (Total)	ug/L	<0.20	3.0	06/02/22 20:19	
1,2-Dichlorobenzene-d4 (S)	%.	100	75-125	06/02/22 20:19	
4-Bromofluorobenzene (S)	%.	102	75-125	06/02/22 20:19	
Toluene-d8 (S)	%.	101	75-125	06/02/22 20:19	

LABORATORY CONTROL SAMPLE: 4340778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	15.9	80	75-125	
1,3,5-Trimethylbenzene	ug/L	20	15.7	79	75-125	
Benzene	ug/L	20	16.9	85	73-125	
Ethylbenzene	ug/L	20	16.8	84	75-125	
Methyl-tert-butyl ether	ug/L	20	19.2	96	75-125	
Naphthalene	ug/L	20	16.3	81	66-127	
Toluene	ug/L	20	17.0	85	74-125	
Xylene (Total)	ug/L	60	49.4	82	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			100	75-125	
4-Bromofluorobenzene (S)	%.			105	75-125	
Toluene-d8 (S)	%.			104	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4340779 4340780

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		10610470001	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
1,2,4-Trimethylbenzene	ug/L	109	20	20	131	127	110	86	62-138	4	30		
1,3,5-Trimethylbenzene	ug/L	14.1	20	20	35.9	34.5	109	102	64-135	4	30		
Benzene	ug/L	ND	20	20	22.2	21.9	99	98	65-140	1	30		
Ethylbenzene	ug/L	ND	20	20	25.4	24.8	105	102	66-126	3	30		
Methyl-tert-butyl ether	ug/L	ND	20	20	22.8	21.2	114	106	65-137	7	30		
Naphthalene	ug/L	48.2	20	20	70.2	68.7	110	102	56-141	2	30		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4340779		4340780									
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10610470001	Spike Conc.	Spike Conc.	MS Result								
Toluene	ug/L	ND	20	20	22.6	18.9	109	90	69-131	18	30		
Xylene (Total)	ug/L	103	60	60	164	158	102	93	68-136	3	30		
1,2-Dichlorobenzene-d4 (S)	%.					100	101	75-125					
4-Bromofluorobenzene (S)	%.					104	104	75-125					
Toluene-d8 (S)	%.					103	90	75-125					

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

QC Batch:	819534	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV UST-WATER
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10610373001, 10610373002

METHOD BLANK: 4342739 Matrix: Water

Associated Lab Samples: 10610373001, 10610373002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	06/07/22 02:02	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	06/07/22 02:02	
Benzene	ug/L	<0.10	1.0	06/07/22 02:02	
Ethylbenzene	ug/L	<0.11	1.0	06/07/22 02:02	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	06/07/22 02:02	
Naphthalene	ug/L	<0.18	1.0	06/07/22 02:02	
Toluene	ug/L	<0.10	1.0	06/07/22 02:02	
Xylene (Total)	ug/L	<0.20	3.0	06/07/22 02:02	
1,2-Dichlorobenzene-d4 (S)	%.	100	75-125	06/07/22 02:02	
4-Bromofluorobenzene (S)	%.	105	75-125	06/07/22 02:02	
Toluene-d8 (S)	%.	104	75-125	06/07/22 02:02	

LABORATORY CONTROL SAMPLE: 4342740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	19.3	97	75-125	
1,3,5-Trimethylbenzene	ug/L	20	19.7	99	75-125	
Benzene	ug/L	20	19.8	99	73-125	
Ethylbenzene	ug/L	20	19.5	97	75-125	
Methyl-tert-butyl ether	ug/L	20	20.6	103	75-125	
Naphthalene	ug/L	20	20.0	100	66-127	
Toluene	ug/L	20	19.1	96	74-125	
Xylene (Total)	ug/L	60	58.5	97	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			101	75-125	
4-Bromofluorobenzene (S)	%.			101	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4342750 4342751

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		10610178004	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
1,2,4-Trimethylbenzene	ug/L	1050	1000	1000	1940	1940	89	89	62-138	0	30		
1,3,5-Trimethylbenzene	ug/L	305	1000	1000	1130	1160	82	85	64-135	2	30		
Benzene	ug/L	4880	1000	1000	6150	5910	126	103	65-140	4	30		
Ethylbenzene	ug/L	393	1000	1000	1260	1170	87	78	66-126	7	30		
Methyl-tert-butyl ether	ug/L	<6.3	1000	1000	895	888	89	89	65-137	1	30		
Naphthalene	ug/L	149	1000	1000	1080	1080	93	93	56-141	0	30		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4342750		4342751									
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10610178004	Spike Conc.	Spike Conc.	MS Result								
Toluene	ug/L	71.3	1000	1000	885	876	81	81	69-131	1	30		
Xylene (Total)	ug/L	2660	3000	3000	5480	5140	94	83	68-136	6	30		
1,2-Dichlorobenzene-d4 (S)	%.						100	98	75-125				
4-Bromofluorobenzene (S)	%.						102	92	75-125				
Toluene-d8 (S)	%.						97	101	75-125				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, LLC.

QUALIFIERS

Project: 49161494.02 100 102 SRC GW ERP-Revised Report
Pace Project No.: 10610373

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above LOD.
J - Estimated concentration at or above the LOD and below the LOQ.
LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.
LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 819119

- [1] The continuing calibration verification was below the method acceptance limit for 2-methylnaphthalene. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.

ANALYTE QUALIFIERS

- 1M Post-analysis pH measurement indicates insufficient VOA sample preservation. Therefore, analysis was conducted outside the recognized method holding time.
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 49161494.02 100 102 SRC GW ERP-Revised Report

Pace Project No.: 10610373

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10610373001	MW-11	EPA 8260D	819534		
10610373002	PZ-11	EPA 8260D	819534		
10610373003	MW-12	EPA 8260D	818275		
10610373004	MW-13	EPA 8260D	818275		
10610373005	PZ-13	EPA 8260D	818275		
10610373006	MW-14	EPA 8260D	818275		
10610373007	MW-20	EPA 8260D	818275		
10610373008	MW-21	EPA 8260D	818275		
10610373009	MW-19	EPA 8260D	818275		
10610373010	MW-22	EPA 8260D	818275		
10610373011	MW-15	EPA 8260D	818275		
10610373012	MW-1	EPA 8260D	818275		
10610373013	MW-16	EPA 8260D	818275		
10610373014	PZ-16	EPA 8260D	818275		
10610373015	MW-2	EPA 8260D	818275		
10610373016	MW-3D	EPA 8260D	818275		
10610373017	PZ-3D	EPA 8260D	818275		
10610373018	PZ-21	EPA 8260D	818275		
10610373019	MW-7	EPA 8260D	819119		
10610373020	MW-9B	EPA 8260D	819119		
10610373021	MW-17	EPA 8260D	819119		
10610373022	PZ-17	EPA 8260D	819119		
10610373023	MW-18	EPA 8260D	819185		
10610373024	PZ-2/T66	EPA 8260D	819185		
10610373025	MW-8R	EPA 8260D	819185		
10610373026	PZ-8R	EPA 8260D	819185		
10610373027	Trip Blank	EPA 8260D	818549		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Barr Engineering Co. Chain of Custody

Sample Origination State

 CO MI MN MO ND TX UT W Other: _____

WO# : 10610373


 OC Number: **No 589281**
 OC 1 of 3

REPORT TO			INVOICE TO																	
Company: Barr Engineering Co.	Company: Barr		Address:	Address:																
Address: 325 S. Lake Ave.			Address:																	
Address: Duluth, MN 55862			Address:																	
Name: Lynette Carney			Name:																	
email: lcarney@barr.com			email:																	
Copy to: BarrDM@barr.com	P.O.	-	Barr Project No: 49161494.02 100 102																	
Project Name: SRC Gw ERP																				
Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Perform PBOC + Tung Phatine	Total Number Of Containers	Y / N	% Solids	Preservative Code									
	Start	Stop	Unit (m./ft. or in.)								Preservative Code	Field Filtered Y/N								
1. MW-11	—	—	05/24/2022	1105	GW	N	3	X			OC1									
2. PZ-11	—	—		1108		N	3	X			W2									
3. MW-12	—	—		1125		N	3	X			W3									
4. MW-13	—	—		1137		N	3	X			W4									
5. PZ-13	—	—		1142		N	3	X			AS									
6. MW-14	—	—		1157		N	3	X			W6									
7. MW-20	—	—		1250		N	3	X			W7									
8. MW-21	—	—		1300		N	3	X			OC8									
9. MW-19	—	—		1315		N	3	X			W9									
10. MW-22	—	—	↓	1332	↓	N	3	X			OC10									
BARR USE ONLY			Relinquished by: <i>Ment Mori</i>			On Ice? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Date <i>5/25/22</i>	Time <i>1505</i>	Received by: <i>VCS</i>		Date <i>5/25/22</i>	Time <i>1505</i>								
Sampled by: <i>KMJ3</i>			Relinquished by: <i></i>			On Ice? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Date <i></i>	Time <i></i>	Received by: <i></i>		Date <i></i>	Time <i></i>								
Barr Proj. Manager: <i>JET</i>			Samples Shipped VIA: <input type="checkbox"/> Ground Courier <input type="checkbox"/> Air Carrier			Air Bill Number: <i></i>			Requested Due Date: <input checked="" type="checkbox"/> Standard Turn Around Time											
Barr DQ Manager: <i>JET</i>			<input type="checkbox"/> Sampler <input type="checkbox"/> Other: <i></i>						<input type="checkbox"/> Rush <i>(mm/dd/yyyy)</i>											
Lab Name: <i>Pace</i>			Lab WO: <i></i>			Temperature on Receipt (°C): <i>25</i>			Custody Seal Intact? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> None											
Lab Location: <i>Green Bay or Minneapolis</i>																				



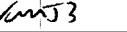
Barr Engineering Co. Chain of Custody

Sample Origination State

 CO MI MN MO ND TX UT WI Other: _____

REPORT TO	INVOICE TO
Company: Barr Engineering Co.	Company: Barr
Address: 325 S Lake Ave	Address:
Address: Duluth, MN 55862	Address:
Name: Lynette Carnay	Name:
email: lcarnay@barr.com	email: 
Copy to: BarrDM@barr.com	P.O. —
Project Name: SRC GW ERP	Barr Project No:

Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Analysis Requested		% Solids	Preservative Code
	Start	Stop	Unit (m./ft. or in.)				MS/MSD	Y / N		
1. MW-15				05/24/2022	1405	GW	N	3	X	011
2. MW-1					1415		N	3	X	012
3. MW-16					1425		N	3	X	013
4. PZ-16					1432		N	3	X	014
5. MW-2					1438		N	3	X	015
6. MW-3D					1446		N	3	X	016
7. PZ-3D					1450		N	3	X	017
8. PZ-21					1305		N	3	X	018
9. MW-7				05/25/2022	0800		N	3	X	019
10. MW-9					0955		N	3	X	020

BARR USE ONLY		Relinquished by: 	On Ice? <input type="checkbox"/> N	Date 5/25/22	Time 1505	Received by: 	Date 5/25/22	Time 1505
Sampled by: 	Barr Proj. Manager: Lunc	Relinquished by: 	On Ice? <input type="checkbox"/> Y	Date	Time	Received by:	Date	Time
Barr DQ Manager: JET	Lab Name: Pace	Samples Shipped VIA: <input type="checkbox"/> Ground Courier <input type="checkbox"/> Air Carrier	<input type="checkbox"/> Sampler <input type="checkbox"/> Other: _____	Air Bill Number: _____			Requested Due Date: <input checked="" type="checkbox"/> Standard Turn Around Time	
Lab Location: Green Bay or Minneapolis	Lab WO: _____	Temperature on Receipt (°C): 25			Custody Seal Intact? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> None	<input type="checkbox"/> Rush (mm/dd/yyyy) _____		

Distribution - White-Original: Accompanies Shipment to Laboratory; Yellow Copy: Include in Field Documents; Scan and email: a copy to BarrDM@barr.com for tracking and filing procedures

COC Number: **No 589279**
 COC 2 of 3

Matrix Code:	Preservative Code:
GW = Groundwater	A = None
SW = Surface Water	B = HCl
WW = Waste Water	C = HNO ₃
DW = Drinking Water	D = H ₂ SO ₄
S = Soil/Solid	E = NaOH
SD = Sediment	F = MeOH
O = Other	G = NaHSO ₄
	H = Na ₂ S ₂ O ₃
	I = Ascorbic Acid
	J = Zn Acetate
	K = Other



Barr Engineering Co. Chain of Custody

Sample Origination State

CO MI MN MO ND TX UT WI Other: _____

REPORT TO		INVOICE TO	
Company: Barr Engineering Co.	Company: Barr	Address:	Address:
Address: 325 S. Lake Ave		Address:	
Address: Duluth, MN 55802		Address:	
Name: Lynette Carney	Name:		
email: lcarney@barr.com	email:		
Copy to: BarrDM@barr.com	P.O. —		
Project Name: SRC Gw ERP	Barr Project No: 49161494.02 100 102		

Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Analysis Requested		% Solids	Preservative Code	Field Filtered Y/N
	Start	Stop	Unit (m./ft. or in.)				Water	Soil			
1. mw-17	—		05/25/2022	1007	Gw	N	3 X			O21	
2. PZ-17	—			1014		N	3 X			O22	
3. mw-18	—			1025		N	3 X			O23	
4. PZ-2/T66	—			1037		N	3 X			O24	
5. mw-8R	—			1055		N	3 X			O25	
6. PZ-8R	—			1100		N	3 X			O26	
7. Trip Blank	—		05/24/2022	—	—	X	2 X			O27	
8.											
9.											
10.											

BARR USE ONLY		Relinquished by: <i>Kent M</i>		On Ice?	Date <i>5/26/22</i>	Time <i>1503</i>	Received by: <i>100</i>	Date <i>5/26/22</i>	Time <i>1500</i>
Sampled by: <i>KMJ3</i>	Barr Proj. Manager: <i>Lme</i>	Relinquished by:	On Ice?	<input checked="" type="checkbox"/> N	Date	Time	Received by:	Date	Time
Barr DQ Manager: <i>JET</i>	Lab Name: <i>Pace</i>	Samples Shipped VIA:	<input type="checkbox"/> Ground Courier	<input type="checkbox"/> Air Carrier	Air Bill Number:		Requested Due Date:		
Lab Location: Minneapolis or Green Bay	Lab WO:	Temperature on Receipt (°C): <i>7.5</i>	Custody Seal Intact? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> None	<input checked="" type="checkbox"/> Standard Turn Around Time	<input type="checkbox"/> Rush <i>(mm/dd/yyyy)</i>				

Distribution - White-Original: Accompanies Shipment to Laboratory; Yellow Copy: Include in Field Documents; Scan and email: a copy to BarrDM@barr.com for tracking and filing procedures

COC Number: **NO 589280**
 COC **3** of **3**

Matrix Code:	Preservative Code
GW = Groundwater	A = None
SW = Surface Water	B = HCl
WW = Waste Water	C = HNO ₃
DW = Drinking Water	D = H ₂ SO ₄
S = Soil/Solid	E = NaOH
SD = Sediment	F = MeOH
O = Other	G = NaHSO ₄
	H = Na ₂ S ₂ O ₃
	I = Ascorbic Acid
	J = Zn Acetate
	K = Other

DC#_Title: ENV-FRM-MIN4-0150 v05_Sample Condition Upon Receipt

ANALYTICAL SERVICES

(SCUR)

Effective Date: 04/12/2022

Sample Condition Upon Receipt

Client Name:

Barr Engineering

Project #:

WO# : 10610373

Courier:

 FedEx UPS USPS
 Pace SpeeDee Commercial

 Client
MKH 5/30/22

Tracking Number:

 See Exceptions
 ENV-FRM-MIN4-0142

Due Date: 06/13/22

PM: MKH
CLIENT: BARRCustody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No Biological Tissue Frozen? Yes No N/APacking Material: Bubble Wrap Bubble Bags None Other: _____Temp Blank? Yes NoThermometer: T1(0461) T2(1336) T3(0459) T4(0254) T5(0489) T6(0235)
 T7(0042) 01339252/1710 122639816 140792808Type of Ice: Wet Blue None Dry MeltedDid Samples Originate in West Virginia? Yes No Were All Container Temps Taken? Yes No N/A

Temp should be above freezing to 6°C

Cooler Temp Read w/temp blank: 2.5

Average Corrected Temp (no temp blank only): _____ °C See Exceptions
ENV-FRM-MIN4-0142 1 Container

Correction Factor: 0.0 Cooler Temp Corrected w/temp blank: 2.5

USDA Regulated Soil: (N/A, water sample/Other: _____)

Date/Initials of Person Examining Contents: MKH 5/27/22

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA.

Did samples originate from a foreign source (internationally, including

MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? Yes NoHawaii and Puerto Rico)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist ENV-FRM-MIN4-0154 and include with SCUR/COC paperwork.

Location (check one): <input type="checkbox"/> Duluth <input checked="" type="checkbox"/> Minneapolis <input type="checkbox"/> Virginia	COMMENTS:
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4. If Fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8hr, <24 hrs, <input type="checkbox"/> >24 hrs
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/ Date/Time on Container Below: See Exception <input type="checkbox"/> On COC, ID is MW-9.0A labels, ID is MW-9.B ENV-FRM-MIN4-0142
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12. Sample # <input type="checkbox"/> NaOH <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> Zinc Acetate
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Positive for Res. <input type="checkbox"/> Yes Chlorine? <input type="checkbox"/> No pH Paper Lot# <input type="checkbox"/> See Exception <input checked="" type="checkbox"/> ENV-FRM-MIN4-0142 MKH 5/30/22
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Res. Chlorine 0-6 Roll 0-6 Strip 0-14 Strip
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input type="checkbox"/> See Exception <input checked="" type="checkbox"/> ENV-FRM-MIN4-0140
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14. Pace Trip Blank Lot # (if purchased): 365294 (2)

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: _____

Date/Time: _____

Field Data Required? Yes No

Comments/Resolution: _____

Project Manager Review:

Date: 5/30/22

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by:



Document Name:
Headspace Exception

Document Revised: 26Mar2020

Page 1 of 1

Document No.:
ENV-FRM-MIN4-0140 Rev.00

Pace Analytical Services -
Minneapolis

Sample ID	Headspace greater than 6mm	Headspace less than 6mm	No Headspace	Total Vials	Sediment Present?
MW-19	1	0	2	3	Y
PZ-16	1	0	2	3	Y

October 24, 2022

Jim Taraldsen
Barr Engineering Company
325 S Lake Ave
Duluth, MN 55802

RE: Project: 49161494.02 100 102 SRC GW ERP
Pace Project No.: 10629888

Dear Jim Taraldsen:

Enclosed are the analytical results for sample(s) received by the laboratory on October 14, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Martha Hansen
martha.hansen@pacelabs.com
(612)607-6451
Project Manager

Enclosures

cc: Barr DM, Barr Engineering
Accounts Payable, Barr Engineering



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414	Missouri Certification #: 10100
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab	Montana Certification #: CERT0092
A2LA Certification #: 2926.01*	Nebraska Certification #: NE-OS-18-06
Alabama Certification #: 40770	Nevada Certification #: MN00064
Alaska Contaminated Sites Certification #: 17-009*	New Hampshire Certification #: 2081*
Alaska DW Certification #: MN00064	New Jersey Certification #: MN002
Arizona Certification #: AZ0014*	New York Certification #: 11647*
Arkansas DW Certification #: MN00064	North Carolina DW Certification #: 27700
Arkansas WW Certification #: 88-0680	North Carolina WW Certification #: 530
California Certification #: 2929	North Dakota Certification (A2LA) #: R-036
Colorado Certification #: MN00064	North Dakota Certification (MN) #: R-036
Connecticut Certification #: PH-0256	Ohio DW Certification #: 41244
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137	Ohio VAP Certification (1700) #: CL101
Florida Certification #: E87605*	Ohio VAP Certification (1800) #: CL110*
Georgia Certification #: 959	Oklahoma Certification #: 9507*
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001*
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563*
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192*
Kentucky WW Certification #: 90062	Utah Certification #: MN00064*
Louisiana DEQ Certification #: AI-03086*	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163*
Maine Certification #: MN00064*	Washington Certification #: C486*
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Michigan Certification #: 9909	West Virginia DW Certification #: 9952 C
Minnesota Certification #: 027-053-137*	Wisconsin Certification #: 999407970
Minnesota Dept of Ag Approval: via MN 027-053-137	Wyoming UST Certification #: via A2LA 2926.01
Minnesota Petrofund Registration #: 1240*	USDA Permit #: P330-19-00208
Mississippi Certification #: MN00064	*Please Note: Applicable air certifications are denoted with an asterisk (*).

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE SUMMARY

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10629888001	PZ-2/T66	Water	10/13/22 09:10	10/14/22 18:46
10629888002	PZ-3D	Water	10/12/22 13:33	10/14/22 18:46
10629888003	PZ-8R	Water	10/12/22 12:15	10/14/22 18:46
10629888004	MW-11	Water	10/12/22 10:48	10/14/22 18:46
10629888005	PZ-11	Water	10/12/22 10:43	10/14/22 18:46
10629888006	MW-12	Water	10/12/22 11:05	10/14/22 18:46
10629888007	MW-13	Water	10/12/22 11:21	10/14/22 18:46
10629888008	PZ-13	Water	10/12/22 11:15	10/14/22 18:46
10629888009	MW-14	Water	10/12/22 11:44	10/14/22 18:46
10629888010	MW-15	Water	10/12/22 12:59	10/14/22 18:46
10629888011	MW-16	Water	10/12/22 14:04	10/14/22 18:46
10629888012	PZ-16	Water	10/12/22 14:40	10/14/22 18:46
10629888013	MW-17	Water	10/13/22 08:43	10/14/22 18:46
10629888014	PZ-17	Water	10/13/22 08:34	10/14/22 18:46
10629888015	MW-18	Water	10/13/22 08:57	10/14/22 18:46
10629888016	MW-20	Water	10/12/22 10:15	10/14/22 18:46
10629888017	MW-21	Water	10/12/22 09:58	10/14/22 18:46
10629888018	PZ-21	Water	10/12/22 10:04	10/14/22 18:46
10629888019	MW-22	Water	10/12/22 09:48	10/14/22 18:46
10629888020	Trip Blank	Water	10/13/22 00:00	10/14/22 18:46

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE ANALYTE COUNT

Project: 49161494.02 100 102 SRC GW ERP
Pace Project No.: 10629888

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10629888001	PZ-2/T66	EPA 8260D	PAB	11	PASI-M
10629888002	PZ-3D	EPA 8260D	TKL	11	PASI-M
10629888003	PZ-8R	EPA 8260D	TKL	11	PASI-M
10629888004	MW-11	EPA 8260D	TKL	11	PASI-M
10629888005	PZ-11	EPA 8260D	TKL	11	PASI-M
10629888006	MW-12	EPA 8260D	TKL	11	PASI-M
10629888007	MW-13	EPA 8260D	TKL	11	PASI-M
10629888008	PZ-13	EPA 8260D	TKL	11	PASI-M
10629888009	MW-14	EPA 8260D	PAB	11	PASI-M
10629888010	MW-15	EPA 8260D	PAB	11	PASI-M
10629888011	MW-16	EPA 8260D	PAB	11	PASI-M
10629888012	PZ-16	EPA 8260D	PAB	11	PASI-M
10629888013	MW-17	EPA 8260D	PAB	11	PASI-M
10629888014	PZ-17	EPA 8260D	PAB	11	PASI-M
10629888015	MW-18	EPA 8260D	PAB	11	PASI-M
10629888016	MW-20	EPA 8260D	PAB	11	PASI-M
10629888017	MW-21	EPA 8260D	PAB	11	PASI-M
10629888018	PZ-21	EPA 8260D	PAB	11	PASI-M
10629888019	MW-22	EPA 8260D	PAB	11	PASI-M
10629888020	Trip Blank	EPA 8260D	PAB	11	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: PZ-2/T66 Lab ID: 10629888001 Collected: 10/13/22 09:10 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 03:39	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 03:39	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 03:39	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 03:39	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 03:39	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 03:39	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 03:39	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 03:39	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		10/19/22 03:39	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		10/19/22 03:39	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/19/22 03:39	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: PZ-3D Lab ID: 10629888002 Collected: 10/12/22 13:33 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/17/22 20:28	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 20:28	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/17/22 20:28	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/17/22 20:28	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/17/22 20:28	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/17/22 20:28	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 20:28	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/17/22 20:28	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	97	%.	75-125		1		10/17/22 20:28	2199-69-1	
4-Bromofluorobenzene (S)	98	%.	75-125		1		10/17/22 20:28	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		10/17/22 20:28	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: PZ-8R **Lab ID: 10629888003** Collected: 10/12/22 12:15 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/17/22 20:44	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 20:44	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/17/22 20:44	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/17/22 20:44	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/17/22 20:44	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/17/22 20:44	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 20:44	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/17/22 20:44	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		10/17/22 20:44	2199-69-1	
4-Bromofluorobenzene (S)	96	%.	75-125		1		10/17/22 20:44	460-00-4	
Toluene-d8 (S)	102	%.	75-125		1		10/17/22 20:44	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-11 Lab ID: 10629888004 Collected: 10/12/22 10:48 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/17/22 20:59	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 20:59	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/17/22 20:59	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/17/22 20:59	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/17/22 20:59	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/17/22 20:59	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 20:59	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/17/22 20:59	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		10/17/22 20:59	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		10/17/22 20:59	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		10/17/22 20:59	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: PZ-11	Lab ID: 10629888005	Collected: 10/12/22 10:43	Received: 10/14/22 18:46	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/17/22 21:14	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 21:14	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/17/22 21:14	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/17/22 21:14	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/17/22 21:14	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/17/22 21:14	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 21:14	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/17/22 21:14	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		10/17/22 21:14	2199-69-1	
4-Bromofluorobenzene (S)	98	%.	75-125		1		10/17/22 21:14	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/17/22 21:14	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-12	Lab ID: 10629888006	Collected: 10/12/22 11:05	Received: 10/14/22 18:46	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/17/22 21:30	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 21:30	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/17/22 21:30	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/17/22 21:30	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/17/22 21:30	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/17/22 21:30	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 21:30	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/17/22 21:30	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		10/17/22 21:30	2199-69-1	
4-Bromofluorobenzene (S)	97	%.	75-125		1		10/17/22 21:30	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/17/22 21:30	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-13	Lab ID: 10629888007	Collected: 10/12/22 11:21	Received: 10/14/22 18:46	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/17/22 21:45	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 21:45	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/17/22 21:45	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/17/22 21:45	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/17/22 21:45	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/17/22 21:45	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 21:45	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/17/22 21:45	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		10/17/22 21:45	2199-69-1	
4-Bromofluorobenzene (S)	95	%.	75-125		1		10/17/22 21:45	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		10/17/22 21:45	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: PZ-13	Lab ID: 10629888008	Collected: 10/12/22 11:15	Received: 10/14/22 18:46	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/17/22 22:01	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 22:01	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/17/22 22:01	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/17/22 22:01	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/17/22 22:01	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/17/22 22:01	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/17/22 22:01	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/17/22 22:01	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		10/17/22 22:01	2199-69-1	
4-Bromofluorobenzene (S)	97	%.	75-125		1		10/17/22 22:01	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		10/17/22 22:01	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-14 **Lab ID: 10629888009** Collected: 10/12/22 11:44 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 01:34	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 01:34	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 01:34	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 01:34	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 01:34	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 01:34	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 01:34	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 01:34	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	97	%.	75-125		1		10/19/22 01:34	2199-69-1	
4-Bromofluorobenzene (S)	97	%.	75-125		1		10/19/22 01:34	460-00-4	
Toluene-d8 (S)	99	%.	75-125		1		10/19/22 01:34	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-15	Lab ID: 10629888010	Collected: 10/12/22 12:59	Received: 10/14/22 18:46	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 01:49	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 01:49	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 01:49	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 01:49	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 01:49	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 01:49	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 01:49	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 01:49	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	97	%.	75-125		1		10/19/22 01:49	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/19/22 01:49	460-00-4	
Toluene-d8 (S)	99	%.	75-125		1		10/19/22 01:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-16	Lab ID: 10629888011	Collected: 10/12/22 14:04	Received: 10/14/22 18:46	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 02:05	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 02:05	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 02:05	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 02:05	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 02:05	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 02:05	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 02:05	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 02:05	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		10/19/22 02:05	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		10/19/22 02:05	460-00-4	
Toluene-d8 (S)	99	%.	75-125		1		10/19/22 02:05	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: PZ-16 Lab ID: 10629888012 Collected: 10/12/22 14:40 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 02:21	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 02:21	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 02:21	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 02:21	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 02:21	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 02:21	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 02:21	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 02:21	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	97	%.	75-125		1		10/19/22 02:21	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		10/19/22 02:21	460-00-4	
Toluene-d8 (S)	99	%.	75-125		1		10/19/22 02:21	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-17 Lab ID: 10629888013 Collected: 10/13/22 08:43 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 03:55	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 03:55	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 03:55	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 03:55	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 03:55	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 03:55	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 03:55	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 03:55	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	97	%.	75-125		1		10/19/22 03:55	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/19/22 03:55	460-00-4	
Toluene-d8 (S)	99	%.	75-125		1		10/19/22 03:55	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: PZ-17 Lab ID: 10629888014 Collected: 10/13/22 08:34 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 04:10	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 04:10	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 04:10	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 04:10	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 04:10	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 04:10	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 04:10	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 04:10	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		10/19/22 04:10	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/19/22 04:10	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		10/19/22 04:10	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-18	Lab ID: 10629888015	Collected: 10/13/22 08:57	Received: 10/14/22 18:46	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 04:26	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 04:26	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 04:26	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 04:26	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 04:26	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 04:26	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 04:26	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 04:26	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		10/19/22 04:26	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/19/22 04:26	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/19/22 04:26	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-20 **Lab ID: 10629888016** Collected: 10/12/22 10:15 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 02:36	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 02:36	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 02:36	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 02:36	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 02:36	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 02:36	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 02:36	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 02:36	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		10/19/22 02:36	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		10/19/22 02:36	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/19/22 02:36	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-21 **Lab ID: 10629888017** Collected: 10/12/22 09:58 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 02:52	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 02:52	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 02:52	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 02:52	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 02:52	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 02:52	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 02:52	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 02:52	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		10/19/22 02:52	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		10/19/22 02:52	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/19/22 02:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: PZ-21 Lab ID: 10629888018 Collected: 10/12/22 10:04 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 03:08	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 03:08	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 03:08	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 03:08	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 03:08	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 03:08	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 03:08	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 03:08	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		10/19/22 03:08	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/19/22 03:08	460-00-4	
Toluene-d8 (S)	99	%.	75-125		1		10/19/22 03:08	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: MW-22 **Lab ID: 10629888019** Collected: 10/12/22 09:48 Received: 10/14/22 18:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 03:23	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 03:23	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 03:23	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 03:23	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 03:23	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 03:23	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 03:23	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 03:23	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1		10/19/22 03:23	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/19/22 03:23	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/19/22 03:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Sample: Trip Blank	Lab ID: 10629888020	Collected: 10/13/22 00:00	Received: 10/14/22 18:46	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV UST	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 00:31	71-43-2	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 00:31	100-41-4	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 00:31	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 00:31	91-20-3	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 00:31	108-88-3	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 00:31	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 00:31	108-67-8	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 00:31	1330-20-7	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		10/19/22 00:31	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/19/22 00:31	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/19/22 00:31	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

QC Batch:	847393	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV UST-WATER
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10629888002, 10629888003, 10629888004, 10629888005, 10629888006, 10629888007, 10629888008

METHOD BLANK: 4483286 Matrix: Water

Associated Lab Samples: 10629888002, 10629888003, 10629888004, 10629888005, 10629888006, 10629888007, 10629888008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	10/17/22 19:57	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	10/17/22 19:57	
Benzene	ug/L	<0.10	1.0	10/17/22 19:57	
Ethylbenzene	ug/L	<0.11	1.0	10/17/22 19:57	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	10/17/22 19:57	
Naphthalene	ug/L	<0.18	1.0	10/17/22 19:57	
Toluene	ug/L	<0.10	1.0	10/17/22 19:57	
Xylene (Total)	ug/L	<0.20	3.0	10/17/22 19:57	
1,2-Dichlorobenzene-d4 (S)	%.	98	75-125	10/17/22 19:57	
4-Bromofluorobenzene (S)	%.	100	75-125	10/17/22 19:57	
Toluene-d8 (S)	%.	101	75-125	10/17/22 19:57	

LABORATORY CONTROL SAMPLE: 4483287

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	18.3	91	75-125	
1,3,5-Trimethylbenzene	ug/L	20	18.1	90	75-125	
Benzene	ug/L	20	16.6	83	73-125	
Ethylbenzene	ug/L	20	17.7	89	75-125	
Methyl-tert-butyl ether	ug/L	20	17.3	86	75-125	
Naphthalene	ug/L	20	18.6	93	66-127	
Toluene	ug/L	20	16.6	83	74-125	
Xylene (Total)	ug/L	60	52.7	88	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			97	75-125	
4-Bromofluorobenzene (S)	%.			102	75-125	
Toluene-d8 (S)	%.			101	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4483288 4483289

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		10629888004	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	MS % Rec	MSD % Rec				
1,2,4-Trimethylbenzene	ug/L	<0.13	20	20	22.1	23.7	110	118	62-138	7	30		
1,3,5-Trimethylbenzene	ug/L	<0.11	20	20	22.2	22.9	111	115	64-135	3	30		
Benzene	ug/L	<0.10	20	20	21.9	22.5	110	112	65-140	3	30		
Ethylbenzene	ug/L	<0.11	20	20	22.1	23.3	111	116	66-126	5	30		
Methyl-tert-butyl ether	ug/L	<0.13	20	20	20.7	21.8	104	109	65-137	5	30		
Naphthalene	ug/L	<0.18	20	20	21.6	22.5	108	113	56-141	4	30		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4483288		4483289									
Parameter	Units	MS		MSD		MS Result	% Rec	MSD Result	% Rec	% Rec Limits	RPD	Max RPD	Max Qual
		10629888004	Spike Conc.	Spike Conc.	MS Result								
Toluene	ug/L	<0.10	20	20	22.5	23.1	113	116	69-131	3	30		
Xylene (Total)	ug/L	<0.20	60	60	66.1	68.6	110	114	68-136	4	30		
1,2-Dichlorobenzene-d4 (S)	%.						98	97	75-125				
4-Bromofluorobenzene (S)	%.						101	103	75-125				
Toluene-d8 (S)	%.						102	100	75-125				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

QC Batch:	847662	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV UST-WATER
		Laboratory:	Pace Analytical Services - Minneapolis
Associated Lab Samples:	10629888001, 10629888009, 10629888010, 10629888011, 10629888012, 10629888013, 10629888014, 10629888015, 10629888016, 10629888017, 10629888018, 10629888019, 10629888020		

METHOD BLANK: 4484588 Matrix: Water

Associated Lab Samples: 10629888001, 10629888009, 10629888010, 10629888011, 10629888012, 10629888013, 10629888014, 10629888015, 10629888016, 10629888017, 10629888018, 10629888019, 10629888020

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	10/19/22 00:16	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	10/19/22 00:16	
Benzene	ug/L	<0.10	1.0	10/19/22 00:16	
Ethylbenzene	ug/L	<0.11	1.0	10/19/22 00:16	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	10/19/22 00:16	
Naphthalene	ug/L	<0.18	1.0	10/19/22 00:16	
Toluene	ug/L	<0.10	1.0	10/19/22 00:16	
Xylene (Total)	ug/L	<0.20	3.0	10/19/22 00:16	
1,2-Dichlorobenzene-d4 (S)	%.	99	75-125	10/19/22 00:16	
4-Bromofluorobenzene (S)	%.	100	75-125	10/19/22 00:16	
Toluene-d8 (S)	%.	99	75-125	10/19/22 00:16	

LABORATORY CONTROL SAMPLE: 4484589

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
1,2,4-Trimethylbenzene	ug/L	20	20.7	104	75-125	
1,3,5-Trimethylbenzene	ug/L	20	21.1	105	75-125	
Benzene	ug/L	20	19.2	96	73-125	
Ethylbenzene	ug/L	20	20.3	102	75-125	
Methyl-tert-butyl ether	ug/L	20	19.5	98	75-125	
Naphthalene	ug/L	20	18.5	92	66-127	
Toluene	ug/L	20	18.7	93	74-125	
Xylene (Total)	ug/L	60	61.4	102	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			100	75-125	
4-Bromofluorobenzene (S)	%.			102	75-125	
Toluene-d8 (S)	%.			100	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4484638 4484639

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10629980003	Result	Spike Conc.	Spike Conc.						
1,2,4-Trimethylbenzene	ug/L	23.1	100	100	124	126	101	103	62-138	1	30
1,3,5-Trimethylbenzene	ug/L	7.8	100	100	108	111	100	103	64-135	3	30
Benzene	ug/L	415	100	100	496	492	81	77	65-140	1	30
Ethylbenzene	ug/L	31.5	100	100	132	131	100	100	66-126	0	30
Methyl-tert-butyl ether	ug/L	<0.63	100	100	98.0	96.4	98	96	65-137	2	30

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4484638		4484639									
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10629980003	Spike Conc.	Spike Conc.	MS Result								
Naphthalene	ug/L	16.5	100	100	111	115	94	98	56-141	3	30		
Toluene	ug/L	9.0	100	100	104	104	95	95	69-131	0	30		
Xylene (Total)	ug/L	39.0	300	300	344	340	102	100	68-136	1	30		
1,2-Dichlorobenzene-d4 (S)	%.						97	97	75-125				
4-Bromofluorobenzene (S)	%.						103	101	75-125				
Toluene-d8 (S)	%.						100	100	75-125				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, LLC.

QUALIFIERS

Project: 49161494.02 100 102 SRC GW ERP
Pace Project No.: 10629888

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 49161494.02 100 102 SRC GW ERP

Pace Project No.: 10629888

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10629888001	PZ-2/T66	EPA 8260D	847662		
10629888002	PZ-3D	EPA 8260D	847393		
10629888003	PZ-8R	EPA 8260D	847393		
10629888004	MW-11	EPA 8260D	847393		
10629888005	PZ-11	EPA 8260D	847393		
10629888006	MW-12	EPA 8260D	847393		
10629888007	MW-13	EPA 8260D	847393		
10629888008	PZ-13	EPA 8260D	847393		
10629888009	MW-14	EPA 8260D	847662		
10629888010	MW-15	EPA 8260D	847662		
10629888011	MW-16	EPA 8260D	847662		
10629888012	PZ-16	EPA 8260D	847662		
10629888013	MW-17	EPA 8260D	847662		
10629888014	PZ-17	EPA 8260D	847662		
10629888015	MW-18	EPA 8260D	847662		
10629888016	MW-20	EPA 8260D	847662		
10629888017	MW-21	EPA 8260D	847662		
10629888018	PZ-21	EPA 8260D	847662		
10629888019	MW-22	EPA 8260D	847662		
10629888020	Trip Blank	EPA 8260D	847662		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

BARR

Barr Engineering Co. Chain of Custody

Sample Origination State

 CO MI MN MO ND NV TX UT WI WY Other: _____

REPORT TO		INVOICE TO	
Company: Barr Engineering Co.	Company: Barr		
Address: 325 S. Lake Ave	Address:		
Address: Duluth, MN 55802	Address:		
Name: Lynette Carney	Name:		
email: LCarney@barr.com	email:		
Copy to: BarrDM@barr.com	P.O.		
Project Name: S2C GW Sampling ERP	Barr Project No: 491161494.02 100 702		

Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Analysis Requested		% Solids
	Start	Stop	Unit (m./ft. or in.)				Water	Soil	
1. mw-16	—	—	10/12/2022	1404	GW	N	3X		011
2. PZ -16	—	—	↓	1440	GW	N	3X		012
3. mw-17	—	—	10/13/2022	043	GW	N	3X		013
4. PZ -17	—	—	↓	034	GW	N	3X		014
5. mw-18	—	—	↓	057	GW	N	3X		015
6. mw-20	—	—	10/12/2022	1015	GW	N	3X		016
7. mw-21	—	—	↓	058	GW	N	3X		017
8. PZ -21	—	—	↓	1004	GW	N	3X		018
9. mw-22	—	—	↓	048	GW	N	3X		019
10. Trip Blank	—	—	10/13/2022	—	WQ	N	2X		020

BARR USE ONLY		Relinquished by: <i>Kathy Schneider</i>	On Ice? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Date <i>10/13/2022</i>	Time <i>0955</i>	Received by: <i>user 202</i>	Date <i>10/13/22</i>	Time <i>0955</i>
Sampled by: <i>KLS3</i>		Relinquished by: <i>Kathy Schneider</i>	On Ice? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Date <i>10/13/22</i>	Time <i>1125</i>	Received by: <i>user 1Pace</i>	Date <i>10/14/22</i>	Time <i>1846</i>
Barr Proj. Manager: <i>Lmc</i>		Samples Shipped VIA: <input type="checkbox"/> Ground Courier <input type="checkbox"/> Air Carrier				Air Bill Number: <i>t-1.5</i>	Requested Due Date:	
Barr DQ Manager: <i>JET</i>		<input type="checkbox"/> Sampler <input type="checkbox"/> Other: _____					<input checked="" type="checkbox"/> Standard Turn Around Time	
Lab Name: <i>Pace</i>		Lab WO: <i>Temperature on Receipt (°C): 3.5</i>			Custody Seal Intact? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> None	<input type="checkbox"/> Rush <i>(mm/dd/yyyy)</i>		
Lab Location: <i>Minneapolis, MN</i>								

Distribution - White-Original: Accompanies Shipment to Laboratory; Yellow Copy: Include in Field Documents; Scan and email: a copy to BarrDM@barr.com for tracking and filing procedures

COC Number: **No 591433**
COC 2 of 2

Matrix Code:	Preservative Code:
GW = Groundwater	A = None
SW = Surface Water	B = HCl
DW = Drinking Water	C = HNO ₃
PW = Pore Water	D = H ₂ SO ₄
WW = Waste Water	E = NaOH
WQ = TB, FB, EB, etc.	F = MeOH
	G = NaHSO ₄
W = Unspecified	H = Na ₂ S ₂ O ₃
S = Soil/Solid	I = Ascorbic Acid
SD = Sediment	J = Zn Acetate
SQ = MeOH blank	K = Other
OTH = Other (Oil, etc.)	

Preservative Code

Field Filtered Y/N

Effective Date:

Sample Condition Upon Receipt	Client Name: Barr Engineering			Project #:	WO# : 1062988																																																																																										
				PM: MKH	Due Date: 10/31/22																																																																																										
				CLIENT: BARR																																																																																											
<p>Courier: <input type="checkbox"/> FedEx <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Pace <input type="checkbox"/> SpeeDee <input checked="" type="checkbox"/> Commercial</p> <p><input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142</p> <p>Tracking Number: _____</p> <p>Custody Seal on Cooler/Box Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Seals Intact? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Packing Material: <input checked="" type="checkbox"/> Bubble Wrap <input checked="" type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input type="checkbox"/> Other</p> <p>Thermometer: <input checked="" type="checkbox"/> T1 (0461) <input type="checkbox"/> T2 (1336) <input type="checkbox"/> T3 (0459) <input type="checkbox"/> T4 (0254) <input type="checkbox"/> T5 (0178) <input type="checkbox"/> T6 (0235) <input type="checkbox"/> T7 (0042) <input type="checkbox"/> T8 (0775) <input type="checkbox"/> 01339252/1710</p> <p>Biological Tissue Frozen? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</p> <p>Temp Blank? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Type of Ice: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> Dry <input type="checkbox"/> None <input type="checkbox"/> Melted</p>																																																																																															
<p>Did Samples Originate in West Virginia? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Temp should be above freezing to 6 °C</p> <p>Correction Factor: <u>+0.2</u></p>				<p>Were All Container Temps Taken? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</p> <p>Cooler temp Read w/Temp Blank: <u>1.3</u> °C</p> <p>Cooler Temp Corrected w/temp blank: <u>1.5</u> °C</p> <p>Average Corrected Temp (no temp blank only): _____ °C</p> <p><input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142 <input type="checkbox"/> 1 Container</p>																																																																																											
<p>USDA Regulated Soil: <input checked="" type="checkbox"/> N/A, water sample other: _____)</p> <p>Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>				<p>Date/Initials of Person Examining Contents: <u>KB 10/15/22</u></p> <p>Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>																																																																																											
<p>If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.</p> <table border="1"> <thead> <tr> <th>Location (Check one): <input type="checkbox"/> Duluth <input checked="" type="checkbox"/> Minneapolis <input type="checkbox"/> Virginia</th> <th colspan="3">COMMENTS</th> </tr> </thead> <tbody> <tr> <td>Chain of Custody Present and Filled Out?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td>1.</td> </tr> <tr> <td>Chain of Custody Relinquished?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td>2.</td> </tr> <tr> <td>Sampler Name and/or Signature on COC?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input type="checkbox"/> N/A</td> <td>3.</td> </tr> <tr> <td>Samples Arrived within Hold Time?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td>4. If fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8 hr, <24 <input type="checkbox"/> No</td> </tr> <tr> <td>Short Hold Time Analysis (<72 hr)?</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> <td>5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E.coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrom <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other</td> </tr> <tr> <td>Rush Turn Around Time Requested?</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> <td>6.</td> </tr> <tr> <td>Sufficient Sample Volume?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td>7.</td> </tr> <tr> <td>Correct Containers Used?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input type="checkbox"/> N/A</td> <td>8.</td> </tr> <tr> <td>-Pace Containers Used?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td></td> </tr> <tr> <td>Containers Intact?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td>9.</td> </tr> <tr> <td>Field Filtered Volume Received for Dissolved Tests?</td> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</td> <td>10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> <tr> <td>Is sufficient information available to reconcile the samples to the COC?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td>11. If no, write ID/Date/Time of container below: <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142</td> </tr> <tr> <td>Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other</td> <td colspan="3"></td> </tr> <tr> <td>All containers needing acid/base preservation have been checked?</td> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</td> <td>12. Sample #</td> </tr> <tr> <td>All containers needing preservation are found to be in compliance with EPA recommendation? (HNO₃, H₂SO₄, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)</td> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</td> <td><input type="checkbox"/> NaOH <input type="checkbox"/> HNO₃ <input type="checkbox"/> H₂SO₄ <input type="checkbox"/> Zinc Acetate</td> </tr> <tr> <td>Exceptions: <input checked="" type="checkbox"/> VOA Coliform, TOC/DOC OIL and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input type="checkbox"/> N/A</td> <td>Positive for Residual Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142</td> </tr> <tr> <td>Headspace in Methyl Mercury Container?</td> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</td> <td>pH Paper Lot #</td> </tr> <tr> <td>Extra labels present on soil VOA or WIDRO containers?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input type="checkbox"/> N/A</td> <td>Residual Chlorine <input type="checkbox"/> 0-6 Roll <input type="checkbox"/> 0-6 Strip <input type="checkbox"/> 0-14 Strip</td> </tr> <tr> <td>Headspace In VOA Vials (greater than 6mm)?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</td> <td></td> </tr> <tr> <td>3 Trip Blanks Present?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input type="checkbox"/> N/A</td> <td>15. Pace Trip Blank Lot # (if purchased): <u>389258(2)</u></td> </tr> <tr> <td>Trip Blank Custody Seals Present?</td> <td><input checked="" type="checkbox"/> Yes</td> <td><input type="checkbox"/> No <input type="checkbox"/> N/A</td> <td></td> </tr> </tbody> </table>								Location (Check one): <input type="checkbox"/> Duluth <input checked="" type="checkbox"/> Minneapolis <input type="checkbox"/> Virginia	COMMENTS			Chain of Custody Present and Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1.	Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2.	Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	3.	Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	4. If fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8 hr, <24 <input type="checkbox"/> No	Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E.coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrom <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other	Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6.	Sufficient Sample Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	7.	Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	8.	-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9.	Field Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is sufficient information available to reconcile the samples to the COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	11. If no, write ID/Date/Time of container below: <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142	Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other				All containers needing acid/base preservation have been checked?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample #	All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> NaOH <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> Zinc Acetate	Exceptions: <input checked="" type="checkbox"/> VOA Coliform, TOC/DOC OIL and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Positive for Residual Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142	Headspace in Methyl Mercury Container?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	pH Paper Lot #	Extra labels present on soil VOA or WIDRO containers?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Residual Chlorine <input type="checkbox"/> 0-6 Roll <input type="checkbox"/> 0-6 Strip <input type="checkbox"/> 0-14 Strip	Headspace In VOA Vials (greater than 6mm)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		3 Trip Blanks Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	15. Pace Trip Blank Lot # (if purchased): <u>389258(2)</u>	Trip Blank Custody Seals Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	
Location (Check one): <input type="checkbox"/> Duluth <input checked="" type="checkbox"/> Minneapolis <input type="checkbox"/> Virginia	COMMENTS																																																																																														
Chain of Custody Present and Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1.																																																																																												
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2.																																																																																												
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	3.																																																																																												
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	4. If fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8 hr, <24 <input type="checkbox"/> No																																																																																												
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E.coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrom <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other																																																																																												
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6.																																																																																												
Sufficient Sample Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	7.																																																																																												
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	8.																																																																																												
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																																																																																													
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9.																																																																																												
Field Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No																																																																																												
Is sufficient information available to reconcile the samples to the COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	11. If no, write ID/Date/Time of container below: <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142																																																																																												
Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other																																																																																															
All containers needing acid/base preservation have been checked?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample #																																																																																												
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> NaOH <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> Zinc Acetate																																																																																												
Exceptions: <input checked="" type="checkbox"/> VOA Coliform, TOC/DOC OIL and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Positive for Residual Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142																																																																																												
Headspace in Methyl Mercury Container?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	pH Paper Lot #																																																																																												
Extra labels present on soil VOA or WIDRO containers?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Residual Chlorine <input type="checkbox"/> 0-6 Roll <input type="checkbox"/> 0-6 Strip <input type="checkbox"/> 0-14 Strip																																																																																												
Headspace In VOA Vials (greater than 6mm)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A																																																																																													
3 Trip Blanks Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	15. Pace Trip Blank Lot # (if purchased): <u>389258(2)</u>																																																																																												
Trip Blank Custody Seals Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A																																																																																													
CLIENT NOTIFICATION/RESOLUTION				Field Data Required? <input type="checkbox"/> Yes <input type="checkbox"/> No Person Contacted: _____ Date/Time: _____ Comments/Resolution: _____ Project Manager Review: <u>Matt M</u> Date: 10/17/22 <p>NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).</p> <p>Labeled By: <u>KO</u> Line: <u>B</u></p>																																																																																											

October 27, 2022

Jim Taraldsen
Barr Engineering Company
325 S Lake Ave
Duluth, MN 55802

RE: Project: 49161494.02 100 102 SRC GW GEM
Pace Project No.: 10629409

Dear Jim Taraldsen:

Enclosed are the analytical results for sample(s) received by the laboratory on October 12, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Martha Hansen
martha.hansen@pacelabs.com
(612)607-6451
Project Manager

Enclosures

cc: Barr DM, Barr Engineering
Accounts Payable, Barr Engineering



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414	Missouri Certification #: 10100
A2LA Certification #: 2926.01*	Montana Certification #: CERT0092
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab	Nebraska Certification #: NE-OS-18-06
Alabama Certification #: 40770	Nevada Certification #: MN00064
Alaska Contaminated Sites Certification #: 17-009*	New Hampshire Certification #: 2081*
Alaska DW Certification #: MN00064	New Jersey Certification #: MN002
Arizona Certification #: AZ0014*	New York Certification #: 11647*
Arkansas DW Certification #: MN00064	North Carolina DW Certification #: 27700
Arkansas WW Certification #: 88-0680	North Carolina WW Certification #: 530
California Certification #: 2929	North Dakota Certification (A2LA) #: R-036
Colorado Certification #: MN00064	North Dakota Certification (MN) #: R-036
Connecticut Certification #: PH-0256	Ohio DW Certification #: 41244
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137	Ohio VAP Certification (1700) #: CL101
Florida Certification #: E87605*	Ohio VAP Certification (1800) #: CL110*
Georgia Certification #: 959	Oklahoma Certification #: 9507*
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001*
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563*
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192*
Kentucky WW Certification #: 90062	Utah Certification #: MN00064*
Louisiana DEQ Certification #: AI-03086*	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163*
Maine Certification #: MN00064*	Washington Certification #: C486*
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Michigan Certification #: 9909	West Virginia DW Certification #: 9952 C
Minnesota Certification #: 027-053-137*	Wisconsin Certification #: 999407970
Minnesota Dept of Ag Approval: via MN 027-053-137	Wyoming UST Certification #: via A2LA 2926.01
Minnesota Petrofund Registration #: 1240*	USDA Permit #: P330-19-00208
Mississippi Certification #: MN00064	*Please Note: Applicable air certifications are denoted with an asterisk (*).

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE SUMMARY

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10629409001	MW-1	Water	10/12/22 13:11	10/12/22 15:42
10629409002	MW-2	Water	10/12/22 13:52	10/12/22 15:42
10629409003	MW-3D	Water	10/12/22 14:27	10/12/22 15:42
10629409004	MW-8R	Water	10/12/22 12:05	10/12/22 15:42
10629409005	MW-9B	Water	10/12/22 14:53	10/12/22 15:42
10629409006	Trip Blank	Water	10/12/22 00:00	10/12/22 15:42

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE ANALYTE COUNT

Project: 49161494.02 100 102 SRC GW GEM
Pace Project No.: 10629409

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10629409001	MW-1	EPA 200.7	IP	4	PASI-M
		EPA 8260D	NMB	72	PASI-M
		SM 2320B	AB3	1	PASI-M
10629409002	MW-2	EPA 200.7	IP	4	PASI-M
		EPA 8260D	NMB	72	PASI-M
		SM 2320B	AB3	1	PASI-M
10629409003	MW-3D	EPA 200.7	IP	4	PASI-M
		EPA 8260D	NMB	72	PASI-M
		SM 2320B	AB3	1	PASI-M
10629409004	MW-8R	EPA 200.7	IP	4	PASI-M
		EPA 8260D	NMB	72	PASI-M
		SM 2320B	AB3	1	PASI-M
10629409005	MW-9B	EPA 200.7	IP	4	PASI-M
		EPA 8260D	NMB	72	PASI-M
		SM 2320B	AB3	1	PASI-M
10629409006	Trip Blank	EPA 8260D	NMB	72	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

PROJECT NARRATIVE

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Date: October 27, 2022

Case Narrative

Volatile Organics

8260D VOA

Batch 847600

Recovery for dichlorodifluoromethane in the continuing calibration verification was outside of laboratory control limits at 123% recovery (limits 80-120%). Reported values may be biased high.

Recovery for bromomethane in the continuing calibration verification was outside of laboratory control limits at 144% recovery (limits 80-120%). Reported values may be biased high.

Recovery for acetone in the continuing calibration verification was outside of laboratory control limits at 132% recovery (limits 80-120%). Reported values may be biased high.

Recovery for tetrahydrofuran in the continuing calibration verification was outside of laboratory control limits at 140% recovery (limits 80-120%). Reported values may be biased high.

Recovery for 4-methyl-2-pentanone (MIBK) in the continuing calibration verification was outside of laboratory control limits at 123% recovery (limits 80-120%). Reported values may be biased high.

Recovery for bromoform in the continuing calibration verification was outside of laboratory control limits at 135% recovery (limits 80-120%). Reported values may be biased high.

Batch 847898

Recovery for bromomethane in the continuing calibration verification was outside of laboratory control limits at 122% recovery (limits 80-120%). The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard . Reported values may be biased high.

Recovery for tetrahydrofuran in the continuing calibration verification was outside of laboratory control limits at 122% recovery (limits 80-120%). The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard . Reported values may be biased high.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

PROJECT NARRATIVE

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Date: October 27, 2022

Batch 847958

Recovery for bromomethane in the continuing calibration verification was outside of laboratory control limits at 122% recovery (limits 80-120%). The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard . Reported values may be biased high.

Recovery for tetrahydrofuran in the continuing calibration verification was outside of laboratory control limits at 122% recovery (limits 80-120%). The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard . Reported values may be biased high.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: MW-1	Lab ID: 10629409001	Collected: 10/12/22 13:11	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Calcium, Dissolved	40800	ug/L	500	97.2	1	10/17/22 12:13	10/18/22 11:52	7440-70-2	
Lead, Dissolved	<2.6	ug/L	10.0	2.6	1	10/17/22 12:13	10/18/22 11:52	7439-92-1	
Magnesium, Dissolved	40700	ug/L	500	28.7	1	10/17/22 12:13	10/18/22 11:52	7439-95-4	
Total Hardness by 2340B, Dissolved	270000	ug/L	3300	361	1	10/17/22 12:13	10/18/22 11:52		
8260D VOC	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Acetone	<1.9	ug/L	10.0	1.9	1		10/18/22 18:55	67-64-1	L1
Allyl chloride	<0.15	ug/L	2.5	0.15	1		10/18/22 18:55	107-05-1	
Benzene	0.14J	ug/L	1.0	0.10	1		10/18/22 18:55	71-43-2	
Bromobenzene	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	108-86-1	
Bromoform	<0.15	ug/L	1.0	0.15	1		10/18/22 18:55	74-97-5	
Bromochloromethane	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	75-27-4	
Bromodichloromethane	<0.22	ug/L	1.0	0.22	1		10/18/22 18:55	75-25-2	L1
Bromoform	0.95J	ug/L	2.5	0.38	1		10/18/22 18:55	74-83-9	B,L1
2-Butanone (MEK)	<0.93	ug/L	10.0	0.93	1		10/18/22 18:55	78-93-3	
n-Butylbenzene	<0.096	ug/L	1.0	0.096	1		10/18/22 18:55	104-51-8	
sec-Butylbenzene	<0.097	ug/L	1.0	0.097	1		10/18/22 18:55	135-98-8	
tert-Butylbenzene	<0.091	ug/L	1.0	0.091	1		10/18/22 18:55	98-06-6	
Carbon tetrachloride	<0.13	ug/L	1.0	0.13	1		10/18/22 18:55	56-23-5	
Chlorobenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 18:55	108-90-7	
Chloroethane	<0.21	ug/L	1.0	0.21	1		10/18/22 18:55	75-00-3	
Chloroform	<0.23	ug/L	1.0	0.23	1		10/18/22 18:55	67-66-3	
Chloromethane	<0.17	ug/L	1.0	0.17	1		10/18/22 18:55	74-87-3	
2-Chlorotoluene	<0.098	ug/L	1.0	0.098	1		10/18/22 18:55	95-49-8	
4-Chlorotoluene	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	106-43-4	
1,2-Dibromo-3-chloropropane	<0.36	ug/L	2.5	0.36	1		10/18/22 18:55	96-12-8	
Dibromochloromethane	<0.20	ug/L	1.0	0.20	1		10/18/22 18:55	124-48-1	
1,2-Dibromoethane (EDB)	<0.20	ug/L	1.0	0.20	1		10/18/22 18:55	106-93-4	
Dibromomethane	<0.17	ug/L	1.0	0.17	1		10/18/22 18:55	74-95-3	
1,2-Dichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 18:55	95-50-1	
1,3-Dichlorobenzene	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	541-73-1	
1,4-Dichlorobenzene	<0.15	ug/L	1.0	0.15	1		10/18/22 18:55	106-46-7	
Dichlorodifluoromethane	<0.079	ug/L	1.0	0.079	1		10/18/22 18:55	75-71-8	
1,1-Dichloroethane	<0.11	ug/L	1.0	0.11	1		10/18/22 18:55	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/18/22 18:55	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	1.0	0.13	1		10/18/22 18:55	75-35-4	
cis-1,2-Dichloroethene	<0.15	ug/L	1.0	0.15	1		10/18/22 18:55	156-59-2	
trans-1,2-Dichloroethene	<0.14	ug/L	1.0	0.14	1		10/18/22 18:55	156-60-5	
Dichlorofluoromethane	<0.15	ug/L	1.0	0.15	1		10/18/22 18:55	75-43-4	
1,2-Dichloropropane	<0.15	ug/L	1.0	0.15	1		10/18/22 18:55	78-87-5	
1,3-Dichloropropane	<0.16	ug/L	1.0	0.16	1		10/18/22 18:55	142-28-9	
2,2-Dichloropropane	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	594-20-7	
1,1-Dichloropropene	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	563-58-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: MW-1	Lab ID: 10629409001	Collected: 10/12/22 13:11	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D VOC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
cis-1,3-Dichloropropene	<0.057	ug/L	1.0	0.057	1		10/18/22 18:55	10061-01-5	
trans-1,3-Dichloropropene	<0.13	ug/L	1.0	0.13	1		10/18/22 18:55	10061-02-6	
Diethyl ether (Ethyl ether)	<0.19	ug/L	2.5	0.19	1		10/18/22 18:55	60-29-7	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/18/22 18:55	100-41-4	
Hexachloro-1,3-butadiene	<0.24	ug/L	1.0	0.24	1		10/18/22 18:55	87-68-3	
Isopropylbenzene (Cumene)	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	98-82-8	
p-Isopropyltoluene	<0.11	ug/L	1.0	0.11	1		10/18/22 18:55	99-87-6	
Methylene Chloride	<0.33	ug/L	1.0	0.33	1		10/18/22 18:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.80	ug/L	10.0	0.80	1		10/18/22 18:55	108-10-1	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/18/22 18:55	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/18/22 18:55	91-20-3	
n-Propylbenzene	<0.11	ug/L	1.0	0.11	1		10/18/22 18:55	103-65-1	
Styrene	<0.097	ug/L	1.0	0.097	1		10/18/22 18:55	100-42-5	
1,1,1,2-Tetrachloroethane	<0.19	ug/L	1.0	0.19	1		10/18/22 18:55	630-20-6	
1,1,2,2-Tetrachloroethane	<0.15	ug/L	1.0	0.15	1		10/18/22 18:55	79-34-5	
Tetrachloroethene	<0.10	ug/L	1.0	0.10	1		10/18/22 18:55	127-18-4	
Tetrahydrofuran	<1.4	ug/L	10.0	1.4	1		10/18/22 18:55	109-99-9	L1
Toluene	<0.10	ug/L	1.0	0.10	1		10/18/22 18:55	108-88-3	
1,2,3-Trichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 18:55	87-61-6	
1,2,4-Trichlorobenzene	<0.14	ug/L	1.0	0.14	1		10/18/22 18:55	120-82-1	
1,1,1-Trichloroethane	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	71-55-6	
1,1,2-Trichloroethane	<0.22	ug/L	1.0	0.22	1		10/18/22 18:55	79-00-5	
Trichloroethene	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	1.0	0.12	1		10/18/22 18:55	75-69-4	
1,2,3-Trichloropropane	<0.38	ug/L	2.5	0.38	1		10/18/22 18:55	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.15	ug/L	1.0	0.15	1		10/18/22 18:55	76-13-1	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 18:55	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/18/22 18:55	108-67-8	
Vinyl chloride	<0.046	ug/L	1.0	0.046	1		10/18/22 18:55	75-01-4	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/18/22 18:55	1330-20-7	
m&p-Xylene	<0.20	ug/L	2.0	0.20	1		10/18/22 18:55	179601-23-1	
o-Xylene	<0.18	ug/L	1.0	0.18	1		10/18/22 18:55	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		10/18/22 18:55	2199-69-1	
4-Bromofluorobenzene (S)	98	%.	75-125		1		10/18/22 18:55	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		10/18/22 18:55	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Minneapolis								
Alkalinity, Total as CaCO3	364	mg/L	5.0	2.4	1		10/26/22 13:21		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: MW-2	Lab ID: 10629409002	Collected: 10/12/22 13:52	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Calcium, Dissolved	50900	ug/L	500	97.2	1	10/17/22 12:13	10/18/22 11:55	7440-70-2	
Lead, Dissolved	<2.6	ug/L	10.0	2.6	1	10/17/22 12:13	10/18/22 11:55	7439-92-1	
Magnesium, Dissolved	57400	ug/L	500	28.7	1	10/17/22 12:13	10/18/22 11:55	7439-95-4	
Total Hardness by 2340B, Dissolved	364000	ug/L	3300	361	1	10/17/22 12:13	10/18/22 11:55		
8260D VOC	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Acetone	<1.9	ug/L	10.0	1.9	1		10/18/22 19:11	67-64-1	L1
Allyl chloride	<0.15	ug/L	2.5	0.15	1		10/18/22 19:11	107-05-1	
Benzene	<0.10	ug/L	1.0	0.10	1		10/18/22 19:11	71-43-2	
Bromobenzene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	108-86-1	
Bromoform	<0.15	ug/L	1.0	0.15	1		10/18/22 19:11	74-97-5	
Bromochloromethane	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	75-27-4	
Bromodichloromethane	<0.22	ug/L	1.0	0.22	1		10/18/22 19:11	75-25-2	L1
Bromoform	0.79J	ug/L	2.5	0.38	1		10/18/22 19:11	74-83-9	B,L1
2-Butanone (MEK)	<0.93	ug/L	10.0	0.93	1		10/18/22 19:11	78-93-3	
n-Butylbenzene	<0.096	ug/L	1.0	0.096	1		10/18/22 19:11	104-51-8	
sec-Butylbenzene	<0.097	ug/L	1.0	0.097	1		10/18/22 19:11	135-98-8	
tert-Butylbenzene	<0.091	ug/L	1.0	0.091	1		10/18/22 19:11	98-06-6	
Carbon tetrachloride	<0.13	ug/L	1.0	0.13	1		10/18/22 19:11	56-23-5	
Chlorobenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:11	108-90-7	
Chloroethane	<0.21	ug/L	1.0	0.21	1		10/18/22 19:11	75-00-3	
Chloroform	<0.23	ug/L	1.0	0.23	1		10/18/22 19:11	67-66-3	
Chloromethane	<0.17	ug/L	1.0	0.17	1		10/18/22 19:11	74-87-3	
2-Chlorotoluene	<0.098	ug/L	1.0	0.098	1		10/18/22 19:11	95-49-8	
4-Chlorotoluene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	106-43-4	
1,2-Dibromo-3-chloropropane	<0.36	ug/L	2.5	0.36	1		10/18/22 19:11	96-12-8	
Dibromochloromethane	<0.20	ug/L	1.0	0.20	1		10/18/22 19:11	124-48-1	
1,2-Dibromoethane (EDB)	<0.20	ug/L	1.0	0.20	1		10/18/22 19:11	106-93-4	
Dibromomethane	<0.17	ug/L	1.0	0.17	1		10/18/22 19:11	74-95-3	
1,2-Dichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:11	95-50-1	
1,3-Dichlorobenzene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	541-73-1	
1,4-Dichlorobenzene	<0.15	ug/L	1.0	0.15	1		10/18/22 19:11	106-46-7	
Dichlorodifluoromethane	<0.079	ug/L	1.0	0.079	1		10/18/22 19:11	75-71-8	
1,1-Dichloroethane	<0.11	ug/L	1.0	0.11	1		10/18/22 19:11	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/18/22 19:11	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:11	75-35-4	
cis-1,2-Dichloroethene	<0.15	ug/L	1.0	0.15	1		10/18/22 19:11	156-59-2	
trans-1,2-Dichloroethene	<0.14	ug/L	1.0	0.14	1		10/18/22 19:11	156-60-5	
Dichlorofluoromethane	<0.15	ug/L	1.0	0.15	1		10/18/22 19:11	75-43-4	
1,2-Dichloropropane	<0.15	ug/L	1.0	0.15	1		10/18/22 19:11	78-87-5	
1,3-Dichloropropane	<0.16	ug/L	1.0	0.16	1		10/18/22 19:11	142-28-9	
2,2-Dichloropropane	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	594-20-7	
1,1-Dichloropropene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	563-58-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM
Pace Project No.: 10629409

Sample: MW-2	Lab ID: 10629409002	Collected: 10/12/22 13:52	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D VOC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
cis-1,3-Dichloropropene	<0.057	ug/L	1.0	0.057	1		10/18/22 19:11	10061-01-5	
trans-1,3-Dichloropropene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:11	10061-02-6	
Diethyl ether (Ethyl ether)	<0.19	ug/L	2.5	0.19	1		10/18/22 19:11	60-29-7	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/18/22 19:11	100-41-4	
Hexachloro-1,3-butadiene	<0.24	ug/L	1.0	0.24	1		10/18/22 19:11	87-68-3	
Isopropylbenzene (Cumene)	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	98-82-8	
p-Isopropyltoluene	<0.11	ug/L	1.0	0.11	1		10/18/22 19:11	99-87-6	
Methylene Chloride	<0.33	ug/L	1.0	0.33	1		10/18/22 19:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.80	ug/L	10.0	0.80	1		10/18/22 19:11	108-10-1	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/18/22 19:11	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/18/22 19:11	91-20-3	
n-Propylbenzene	<0.11	ug/L	1.0	0.11	1		10/18/22 19:11	103-65-1	
Styrene	<0.097	ug/L	1.0	0.097	1		10/18/22 19:11	100-42-5	
1,1,1,2-Tetrachloroethane	<0.19	ug/L	1.0	0.19	1		10/18/22 19:11	630-20-6	
1,1,2,2-Tetrachloroethane	<0.15	ug/L	1.0	0.15	1		10/18/22 19:11	79-34-5	
Tetrachloroethene	<0.10	ug/L	1.0	0.10	1		10/18/22 19:11	127-18-4	
Tetrahydrofuran	<1.4	ug/L	10.0	1.4	1		10/18/22 19:11	109-99-9	L1
Toluene	<0.10	ug/L	1.0	0.10	1		10/18/22 19:11	108-88-3	
1,2,3-Trichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:11	87-61-6	
1,2,4-Trichlorobenzene	<0.14	ug/L	1.0	0.14	1		10/18/22 19:11	120-82-1	
1,1,1-Trichloroethane	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	71-55-6	
1,1,2-Trichloroethane	<0.22	ug/L	1.0	0.22	1		10/18/22 19:11	79-00-5	
Trichloroethene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	1.0	0.12	1		10/18/22 19:11	75-69-4	
1,2,3-Trichloropropane	<0.38	ug/L	2.5	0.38	1		10/18/22 19:11	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.15	ug/L	1.0	0.15	1		10/18/22 19:11	76-13-1	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:11	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/18/22 19:11	108-67-8	
Vinyl chloride	<0.046	ug/L	1.0	0.046	1		10/18/22 19:11	75-01-4	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/18/22 19:11	1330-20-7	
m&p-Xylene	<0.20	ug/L	2.0	0.20	1		10/18/22 19:11	179601-23-1	
o-Xylene	<0.18	ug/L	1.0	0.18	1		10/18/22 19:11	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	96	%.	75-125		1		10/18/22 19:11	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/18/22 19:11	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/18/22 19:11	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Minneapolis								
Alkalinity, Total as CaCO3	436	mg/L	5.0	2.4	1		10/26/22 13:27		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM
Pace Project No.: 10629409

Sample: MW-3D	Lab ID: 10629409003	Collected: 10/12/22 14:27	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Calcium, Dissolved	53900	ug/L	500	97.2	1	10/17/22 12:13	10/18/22 11:57	7440-70-2	
Lead, Dissolved	<2.6	ug/L	10.0	2.6	1	10/17/22 12:13	10/18/22 11:57	7439-92-1	
Magnesium, Dissolved	37700	ug/L	500	28.7	1	10/17/22 12:13	10/18/22 11:57	7439-95-4	
Total Hardness by 2340B, Dissolved	290000	ug/L	3300	361	1	10/17/22 12:13	10/18/22 11:57		
8260D VOC	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Acetone	<1.9	ug/L	10.0	1.9	1		10/18/22 19:26	67-64-1	L1
Allyl chloride	<0.15	ug/L	2.5	0.15	1		10/18/22 19:26	107-05-1	
Benzene	<0.10	ug/L	1.0	0.10	1		10/18/22 19:26	71-43-2	
Bromobenzene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	108-86-1	
Bromoform	<0.15	ug/L	1.0	0.15	1		10/18/22 19:26	74-97-5	
Bromochloromethane	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	75-27-4	
Bromodichloromethane	<0.22	ug/L	1.0	0.22	1		10/18/22 19:26	75-25-2	
Bromoform	0.76J	ug/L	2.5	0.38	1		10/18/22 19:26	74-83-9	B,L1
2-Butanone (MEK)	<0.93	ug/L	10.0	0.93	1		10/18/22 19:26	78-93-3	
n-Butylbenzene	<0.096	ug/L	1.0	0.096	1		10/18/22 19:26	104-51-8	
sec-Butylbenzene	<0.097	ug/L	1.0	0.097	1		10/18/22 19:26	135-98-8	
tert-Butylbenzene	<0.091	ug/L	1.0	0.091	1		10/18/22 19:26	98-06-6	
Carbon tetrachloride	<0.13	ug/L	1.0	0.13	1		10/18/22 19:26	56-23-5	
Chlorobenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:26	108-90-7	
Chloroethane	<0.21	ug/L	1.0	0.21	1		10/18/22 19:26	75-00-3	
Chloroform	<0.23	ug/L	1.0	0.23	1		10/18/22 19:26	67-66-3	
Chloromethane	<0.17	ug/L	1.0	0.17	1		10/18/22 19:26	74-87-3	
2-Chlorotoluene	<0.098	ug/L	1.0	0.098	1		10/18/22 19:26	95-49-8	
4-Chlorotoluene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	106-43-4	
1,2-Dibromo-3-chloropropane	<0.36	ug/L	2.5	0.36	1		10/18/22 19:26	96-12-8	
Dibromochloromethane	<0.20	ug/L	1.0	0.20	1		10/18/22 19:26	124-48-1	
1,2-Dibromoethane (EDB)	<0.20	ug/L	1.0	0.20	1		10/18/22 19:26	106-93-4	
Dibromomethane	<0.17	ug/L	1.0	0.17	1		10/18/22 19:26	74-95-3	
1,2-Dichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:26	95-50-1	
1,3-Dichlorobenzene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	541-73-1	
1,4-Dichlorobenzene	<0.15	ug/L	1.0	0.15	1		10/18/22 19:26	106-46-7	
Dichlorodifluoromethane	<0.079	ug/L	1.0	0.079	1		10/18/22 19:26	75-71-8	
1,1-Dichloroethane	<0.11	ug/L	1.0	0.11	1		10/18/22 19:26	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/18/22 19:26	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:26	75-35-4	
cis-1,2-Dichloroethene	<0.15	ug/L	1.0	0.15	1		10/18/22 19:26	156-59-2	
trans-1,2-Dichloroethene	<0.14	ug/L	1.0	0.14	1		10/18/22 19:26	156-60-5	
Dichlorofluoromethane	<0.15	ug/L	1.0	0.15	1		10/18/22 19:26	75-43-4	
1,2-Dichloropropane	<0.15	ug/L	1.0	0.15	1		10/18/22 19:26	78-87-5	
1,3-Dichloropropane	<0.16	ug/L	1.0	0.16	1		10/18/22 19:26	142-28-9	
2,2-Dichloropropane	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	594-20-7	
1,1-Dichloropropene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	563-58-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: MW-3D	Lab ID: 10629409003	Collected: 10/12/22 14:27	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D VOC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
cis-1,3-Dichloropropene	<0.057	ug/L	1.0	0.057	1		10/18/22 19:26	10061-01-5	
trans-1,3-Dichloropropene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:26	10061-02-6	
Diethyl ether (Ethyl ether)	<0.19	ug/L	2.5	0.19	1		10/18/22 19:26	60-29-7	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/18/22 19:26	100-41-4	
Hexachloro-1,3-butadiene	<0.24	ug/L	1.0	0.24	1		10/18/22 19:26	87-68-3	
Isopropylbenzene (Cumene)	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	98-82-8	
p-Isopropyltoluene	<0.11	ug/L	1.0	0.11	1		10/18/22 19:26	99-87-6	
Methylene Chloride	<0.33	ug/L	1.0	0.33	1		10/18/22 19:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.80	ug/L	10.0	0.80	1		10/18/22 19:26	108-10-1	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/18/22 19:26	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/18/22 19:26	91-20-3	
n-Propylbenzene	<0.11	ug/L	1.0	0.11	1		10/18/22 19:26	103-65-1	
Styrene	<0.097	ug/L	1.0	0.097	1		10/18/22 19:26	100-42-5	
1,1,1,2-Tetrachloroethane	<0.19	ug/L	1.0	0.19	1		10/18/22 19:26	630-20-6	
1,1,2,2-Tetrachloroethane	<0.15	ug/L	1.0	0.15	1		10/18/22 19:26	79-34-5	
Tetrachloroethene	<0.10	ug/L	1.0	0.10	1		10/18/22 19:26	127-18-4	
Tetrahydrofuran	<1.4	ug/L	10.0	1.4	1		10/18/22 19:26	109-99-9	L1
Toluene	<0.10	ug/L	1.0	0.10	1		10/18/22 19:26	108-88-3	
1,2,3-Trichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:26	87-61-6	
1,2,4-Trichlorobenzene	<0.14	ug/L	1.0	0.14	1		10/18/22 19:26	120-82-1	
1,1,1-Trichloroethane	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	71-55-6	
1,1,2-Trichloroethane	<0.22	ug/L	1.0	0.22	1		10/18/22 19:26	79-00-5	
Trichloroethene	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	1.0	0.12	1		10/18/22 19:26	75-69-4	
1,2,3-Trichloropropane	<0.38	ug/L	2.5	0.38	1		10/18/22 19:26	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.15	ug/L	1.0	0.15	1		10/18/22 19:26	76-13-1	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/18/22 19:26	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/18/22 19:26	108-67-8	
Vinyl chloride	<0.046	ug/L	1.0	0.046	1		10/18/22 19:26	75-01-4	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/18/22 19:26	1330-20-7	
m&p-Xylene	<0.20	ug/L	2.0	0.20	1		10/18/22 19:26	179601-23-1	
o-Xylene	<0.18	ug/L	1.0	0.18	1		10/18/22 19:26	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		10/18/22 19:26	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/18/22 19:26	460-00-4	
Toluene-d8 (S)	101	%.	75-125		1		10/18/22 19:26	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Minneapolis								
Alkalinity, Total as CaCO3	267	mg/L	5.0	2.4	1		10/26/22 13:32		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: MW-8R	Lab ID: 10629409004	Collected: 10/12/22 12:05	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Calcium, Dissolved	112000	ug/L	500	97.2	1	10/17/22 12:13	10/18/22 11:58	7440-70-2	
Lead, Dissolved	<2.6	ug/L	10.0	2.6	1	10/17/22 12:13	10/18/22 11:58	7439-92-1	
Magnesium, Dissolved	74900	ug/L	500	28.7	1	10/17/22 12:13	10/18/22 11:58	7439-95-4	
Total Hardness by 2340B, Dissolved	589000	ug/L	3300	361	1	10/17/22 12:13	10/18/22 11:58		
8260D VOC	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Acetone	<1.9	ug/L	10.0	1.9	1		10/19/22 20:47	67-64-1	
Allyl chloride	<0.15	ug/L	2.5	0.15	1		10/19/22 20:47	107-05-1	
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 20:47	71-43-2	
Bromobenzene	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	108-86-1	
Bromoform	<0.15	ug/L	1.0	0.15	1		10/19/22 20:47	74-97-5	
Bromochloromethane	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	75-27-4	
Bromodichloromethane	<0.22	ug/L	1.0	0.22	1		10/19/22 20:47	75-25-2	
Bromoform	0.88J	ug/L	2.5	0.38	1		10/19/22 20:47	74-83-9	
Bromomethane	<0.93	ug/L	10.0	0.93	1		10/19/22 20:47	78-93-3	B,L1
2-Butanone (MEK)	<0.096	ug/L	1.0	0.096	1		10/19/22 20:47	104-51-8	
n-Butylbenzene	<0.097	ug/L	1.0	0.097	1		10/19/22 20:47	135-98-8	
sec-Butylbenzene	<0.091	ug/L	1.0	0.091	1		10/19/22 20:47	98-06-6	
tert-Butylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 20:47	56-23-5	
Carbon tetrachloride	<0.13	ug/L	1.0	0.13	1		10/19/22 20:47	108-90-7	
Chlorobenzene	<0.21	ug/L	1.0	0.21	1		10/19/22 20:47	75-00-3	
Chloroethane	<0.23	ug/L	1.0	0.23	1		10/19/22 20:47	67-66-3	
Chloroform	<0.17	ug/L	1.0	0.17	1		10/19/22 20:47	74-87-3	
Chloromethane	<0.098	ug/L	1.0	0.098	1		10/19/22 20:47	95-49-8	
2-Chlorotoluene	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	106-43-4	
4-Chlorotoluene	<0.36	ug/L	2.5	0.36	1		10/19/22 20:47	96-12-8	
1,2-Dibromo-3-chloropropane	<0.20	ug/L	1.0	0.20	1		10/19/22 20:47	124-48-1	
Dibromochloromethane	<0.20	ug/L	1.0	0.20	1		10/19/22 20:47	106-93-4	
1,2-Dibromoethane (EDB)	<0.17	ug/L	1.0	0.17	1		10/19/22 20:47	74-95-3	
Dibromomethane	<0.13	ug/L	1.0	0.13	1		10/19/22 20:47	95-50-1	
1,2-Dichlorobenzene	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	541-73-1	
1,4-Dichlorobenzene	<0.15	ug/L	1.0	0.15	1		10/19/22 20:47	106-46-7	
Dichlorodifluoromethane	<0.079	ug/L	1.0	0.079	1		10/19/22 20:47	75-71-8	
1,1-Dichloroethane	<0.11	ug/L	1.0	0.11	1		10/19/22 20:47	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/19/22 20:47	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	1.0	0.13	1		10/19/22 20:47	75-35-4	
cis-1,2-Dichloroethene	<0.15	ug/L	1.0	0.15	1		10/19/22 20:47	156-59-2	
trans-1,2-Dichloroethene	<0.14	ug/L	1.0	0.14	1		10/19/22 20:47	156-60-5	
Dichlorofluoromethane	<0.15	ug/L	1.0	0.15	1		10/19/22 20:47	75-43-4	
1,2-Dichloropropane	<0.15	ug/L	1.0	0.15	1		10/19/22 20:47	78-87-5	
1,3-Dichloropropane	<0.16	ug/L	1.0	0.16	1		10/19/22 20:47	142-28-9	
2,2-Dichloropropane	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	594-20-7	
1,1-Dichloropropene	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	563-58-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: MW-8R	Lab ID: 10629409004	Collected: 10/12/22 12:05	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D VOC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
cis-1,3-Dichloropropene	<0.057	ug/L	1.0	0.057	1		10/19/22 20:47	10061-01-5	
trans-1,3-Dichloropropene	<0.13	ug/L	1.0	0.13	1		10/19/22 20:47	10061-02-6	
Diethyl ether (Ethyl ether)	<0.19	ug/L	2.5	0.19	1		10/19/22 20:47	60-29-7	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 20:47	100-41-4	
Hexachloro-1,3-butadiene	<0.24	ug/L	1.0	0.24	1		10/19/22 20:47	87-68-3	
Isopropylbenzene (Cumene)	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	98-82-8	
p-Isopropyltoluene	<0.11	ug/L	1.0	0.11	1		10/19/22 20:47	99-87-6	
Methylene Chloride	<0.33	ug/L	1.0	0.33	1		10/19/22 20:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.80	ug/L	10.0	0.80	1		10/19/22 20:47	108-10-1	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 20:47	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 20:47	91-20-3	
n-Propylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 20:47	103-65-1	
Styrene	<0.097	ug/L	1.0	0.097	1		10/19/22 20:47	100-42-5	
1,1,1,2-Tetrachloroethane	<0.19	ug/L	1.0	0.19	1		10/19/22 20:47	630-20-6	
1,1,2,2-Tetrachloroethane	<0.15	ug/L	1.0	0.15	1		10/19/22 20:47	79-34-5	
Tetrachloroethene	<0.10	ug/L	1.0	0.10	1		10/19/22 20:47	127-18-4	
Tetrahydrofuran	<1.4	ug/L	10.0	1.4	1		10/19/22 20:47	109-99-9	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 20:47	108-88-3	
1,2,3-Trichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 20:47	87-61-6	
1,2,4-Trichlorobenzene	<0.14	ug/L	1.0	0.14	1		10/19/22 20:47	120-82-1	
1,1,1-Trichloroethane	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	71-55-6	
1,1,2-Trichloroethane	<0.22	ug/L	1.0	0.22	1		10/19/22 20:47	79-00-5	
Trichloroethene	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	1.0	0.12	1		10/19/22 20:47	75-69-4	
1,2,3-Trichloropropane	<0.38	ug/L	2.5	0.38	1		10/19/22 20:47	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.15	ug/L	1.0	0.15	1		10/19/22 20:47	76-13-1	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 20:47	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 20:47	108-67-8	
Vinyl chloride	<0.046	ug/L	1.0	0.046	1		10/19/22 20:47	75-01-4	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 20:47	1330-20-7	
m&p-Xylene	<0.20	ug/L	2.0	0.20	1		10/19/22 20:47	179601-23-1	
o-Xylene	<0.18	ug/L	1.0	0.18	1		10/19/22 20:47	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		10/19/22 20:47	2199-69-1	
4-Bromofluorobenzene (S)	100	%.	75-125		1		10/19/22 20:47	460-00-4	
Toluene-d8 (S)	98	%.	75-125		1		10/19/22 20:47	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Minneapolis								
Alkalinity, Total as CaCO3	619	mg/L	5.0	2.4	1		10/26/22 13:37		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: MW-9B	Lab ID: 10629409005	Collected: 10/12/22 14:53	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Calcium, Dissolved	41100	ug/L	500	97.2	1	10/17/22 12:13	10/18/22 12:00	7440-70-2	
Lead, Dissolved	<2.6	ug/L	10.0	2.6	1	10/17/22 12:13	10/18/22 12:00	7439-92-1	
Magnesium, Dissolved	59300	ug/L	500	28.7	1	10/17/22 12:13	10/18/22 12:00	7439-95-4	
Total Hardness by 2340B, Dissolved	347000	ug/L	3300	361	1	10/17/22 12:13	10/18/22 12:00		
8260D VOC	Analytical Method: EPA 8260D Pace Analytical Services - Minneapolis								
Acetone	<1.9	ug/L	10.0	1.9	1		10/19/22 21:02	67-64-1	
Allyl chloride	<0.15	ug/L	2.5	0.15	1		10/19/22 21:02	107-05-1	
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 21:02	71-43-2	
Bromobenzene	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	108-86-1	
Bromoform	<0.15	ug/L	1.0	0.15	1		10/19/22 21:02	74-97-5	
Bromochloromethane	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	75-27-4	
Bromodichloromethane	<0.22	ug/L	1.0	0.22	1		10/19/22 21:02	75-25-2	
Bromoform	0.50J	ug/L	2.5	0.38	1		10/19/22 21:02	74-83-9	
Bromomethane	<0.93	ug/L	10.0	0.93	1		10/19/22 21:02	78-93-3	B,L1
2-Butanone (MEK)	<0.096	ug/L	1.0	0.096	1		10/19/22 21:02	104-51-8	
n-Butylbenzene	<0.097	ug/L	1.0	0.097	1		10/19/22 21:02	135-98-8	
sec-Butylbenzene	<0.091	ug/L	1.0	0.091	1		10/19/22 21:02	98-06-6	
tert-Butylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 21:02	56-23-5	
Carbon tetrachloride	<0.13	ug/L	1.0	0.13	1		10/19/22 21:02	108-90-7	
Chlorobenzene	<0.21	ug/L	1.0	0.21	1		10/19/22 21:02	75-00-3	
Chloroethane	<0.23	ug/L	1.0	0.23	1		10/19/22 21:02	67-66-3	
Chloroform	<0.17	ug/L	1.0	0.17	1		10/19/22 21:02	74-87-3	
Chloromethane	<0.098	ug/L	1.0	0.098	1		10/19/22 21:02	95-49-8	
2-Chlorotoluene	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	106-43-4	
4-Chlorotoluene	<0.36	ug/L	2.5	0.36	1		10/19/22 21:02	96-12-8	
1,2-Dibromo-3-chloropropane	<0.20	ug/L	1.0	0.20	1		10/19/22 21:02	124-48-1	
Dibromochloromethane	<0.20	ug/L	1.0	0.20	1		10/19/22 21:02	106-93-4	
1,2-Dibromoethane (EDB)	<0.17	ug/L	1.0	0.17	1		10/19/22 21:02	74-95-3	
Dibromomethane	<0.13	ug/L	1.0	0.13	1		10/19/22 21:02	95-50-1	
1,2-Dichlorobenzene	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	541-73-1	
1,4-Dichlorobenzene	<0.15	ug/L	1.0	0.15	1		10/19/22 21:02	106-46-7	
Dichlorodifluoromethane	<0.079	ug/L	1.0	0.079	1		10/19/22 21:02	75-71-8	
1,1-Dichloroethane	<0.11	ug/L	1.0	0.11	1		10/19/22 21:02	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/19/22 21:02	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	1.0	0.13	1		10/19/22 21:02	75-35-4	
cis-1,2-Dichloroethene	<0.15	ug/L	1.0	0.15	1		10/19/22 21:02	156-59-2	
trans-1,2-Dichloroethene	<0.14	ug/L	1.0	0.14	1		10/19/22 21:02	156-60-5	
Dichlorofluoromethane	<0.15	ug/L	1.0	0.15	1		10/19/22 21:02	75-43-4	
1,2-Dichloropropane	<0.15	ug/L	1.0	0.15	1		10/19/22 21:02	78-87-5	
1,3-Dichloropropane	<0.16	ug/L	1.0	0.16	1		10/19/22 21:02	142-28-9	
2,2-Dichloropropane	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	594-20-7	
1,1-Dichloropropene	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	563-58-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: MW-9B	Lab ID: 10629409005	Collected: 10/12/22 14:53	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D VOC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
cis-1,3-Dichloropropene	<0.057	ug/L	1.0	0.057	1		10/19/22 21:02	10061-01-5	
trans-1,3-Dichloropropene	<0.13	ug/L	1.0	0.13	1		10/19/22 21:02	10061-02-6	
Diethyl ether (Ethyl ether)	<0.19	ug/L	2.5	0.19	1		10/19/22 21:02	60-29-7	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 21:02	100-41-4	
Hexachloro-1,3-butadiene	<0.24	ug/L	1.0	0.24	1		10/19/22 21:02	87-68-3	
Isopropylbenzene (Cumene)	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	98-82-8	
p-Isopropyltoluene	<0.11	ug/L	1.0	0.11	1		10/19/22 21:02	99-87-6	
Methylene Chloride	<0.33	ug/L	1.0	0.33	1		10/19/22 21:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.80	ug/L	10.0	0.80	1		10/19/22 21:02	108-10-1	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 21:02	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 21:02	91-20-3	
n-Propylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 21:02	103-65-1	
Styrene	<0.097	ug/L	1.0	0.097	1		10/19/22 21:02	100-42-5	
1,1,1,2-Tetrachloroethane	<0.19	ug/L	1.0	0.19	1		10/19/22 21:02	630-20-6	
1,1,2,2-Tetrachloroethane	<0.15	ug/L	1.0	0.15	1		10/19/22 21:02	79-34-5	
Tetrachloroethene	<0.10	ug/L	1.0	0.10	1		10/19/22 21:02	127-18-4	
Tetrahydrofuran	<1.4	ug/L	10.0	1.4	1		10/19/22 21:02	109-99-9	
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 21:02	108-88-3	
1,2,3-Trichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 21:02	87-61-6	
1,2,4-Trichlorobenzene	<0.14	ug/L	1.0	0.14	1		10/19/22 21:02	120-82-1	
1,1,1-Trichloroethane	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	71-55-6	
1,1,2-Trichloroethane	<0.22	ug/L	1.0	0.22	1		10/19/22 21:02	79-00-5	
Trichloroethene	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	1.0	0.12	1		10/19/22 21:02	75-69-4	
1,2,3-Trichloropropane	<0.38	ug/L	2.5	0.38	1		10/19/22 21:02	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.15	ug/L	1.0	0.15	1		10/19/22 21:02	76-13-1	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 21:02	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 21:02	108-67-8	
Vinyl chloride	<0.046	ug/L	1.0	0.046	1		10/19/22 21:02	75-01-4	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 21:02	1330-20-7	
m&p-Xylene	<0.20	ug/L	2.0	0.20	1		10/19/22 21:02	179601-23-1	
o-Xylene	<0.18	ug/L	1.0	0.18	1		10/19/22 21:02	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%.	75-125		1		10/19/22 21:02	2199-69-1	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/19/22 21:02	460-00-4	
Toluene-d8 (S)	99	%.	75-125		1		10/19/22 21:02	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Minneapolis								
Alkalinity, Total as CaCO3	424	mg/L	5.0	2.4	1		10/26/22 13:54		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: Trip Blank	Lab ID: 10629409006	Collected: 10/12/22 00:00	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D VOC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
Acetone	<1.9	ug/L	10.0	1.9	1		10/19/22 22:20	67-64-1	
Allyl chloride	<0.15	ug/L	2.5	0.15	1		10/19/22 22:20	107-05-1	
Benzene	<0.10	ug/L	1.0	0.10	1		10/19/22 22:20	71-43-2	
Bromobenzene	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	108-86-1	
Bromochloromethane	<0.15	ug/L	1.0	0.15	1		10/19/22 22:20	74-97-5	
Bromodichloromethane	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	75-27-4	
Bromoform	<0.22	ug/L	1.0	0.22	1		10/19/22 22:20	75-25-2	
Bromomethane	0.46J	ug/L	2.5	0.38	1		10/19/22 22:20	74-83-9	B
2-Butanone (MEK)	<0.93	ug/L	10.0	0.93	1		10/19/22 22:20	78-93-3	
n-Butylbenzene	<0.096	ug/L	1.0	0.096	1		10/19/22 22:20	104-51-8	
sec-Butylbenzene	<0.097	ug/L	1.0	0.097	1		10/19/22 22:20	135-98-8	
tert-Butylbenzene	<0.091	ug/L	1.0	0.091	1		10/19/22 22:20	98-06-6	
Carbon tetrachloride	<0.13	ug/L	1.0	0.13	1		10/19/22 22:20	56-23-5	
Chlorobenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 22:20	108-90-7	
Chloroethane	<0.21	ug/L	1.0	0.21	1		10/19/22 22:20	75-00-3	
Chloroform	<0.23	ug/L	1.0	0.23	1		10/19/22 22:20	67-66-3	
Chloromethane	<0.17	ug/L	1.0	0.17	1		10/19/22 22:20	74-87-3	
2-Chlorotoluene	<0.098	ug/L	1.0	0.098	1		10/19/22 22:20	95-49-8	
4-Chlorotoluene	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	106-43-4	
1,2-Dibromo-3-chloropropane	<0.36	ug/L	2.5	0.36	1		10/19/22 22:20	96-12-8	
Dibromochloromethane	<0.20	ug/L	1.0	0.20	1		10/19/22 22:20	124-48-1	
1,2-Dibromoethane (EDB)	<0.20	ug/L	1.0	0.20	1		10/19/22 22:20	106-93-4	
Dibromomethane	<0.17	ug/L	1.0	0.17	1		10/19/22 22:20	74-95-3	
1,2-Dichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 22:20	95-50-1	
1,3-Dichlorobenzene	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	541-73-1	
1,4-Dichlorobenzene	<0.15	ug/L	1.0	0.15	1		10/19/22 22:20	106-46-7	
Dichlorodifluoromethane	<0.079	ug/L	1.0	0.079	1		10/19/22 22:20	75-71-8	
1,1-Dichloroethane	<0.11	ug/L	1.0	0.11	1		10/19/22 22:20	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/19/22 22:20	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	1.0	0.13	1		10/19/22 22:20	75-35-4	
cis-1,2-Dichloroethene	<0.15	ug/L	1.0	0.15	1		10/19/22 22:20	156-59-2	
trans-1,2-Dichloroethene	<0.14	ug/L	1.0	0.14	1		10/19/22 22:20	156-60-5	
Dichlorofluoromethane	<0.15	ug/L	1.0	0.15	1		10/19/22 22:20	75-43-4	
1,2-Dichloropropane	<0.15	ug/L	1.0	0.15	1		10/19/22 22:20	78-87-5	
1,3-Dichloropropane	<0.16	ug/L	1.0	0.16	1		10/19/22 22:20	142-28-9	
2,2-Dichloropropane	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	594-20-7	
1,1-Dichloropropene	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	563-58-6	
cis-1,3-Dichloropropene	<0.057	ug/L	1.0	0.057	1		10/19/22 22:20	10061-01-5	
trans-1,3-Dichloropropene	<0.13	ug/L	1.0	0.13	1		10/19/22 22:20	10061-02-6	
Diethyl ether (Ethyl ether)	<0.19	ug/L	2.5	0.19	1		10/19/22 22:20	60-29-7	
Ethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 22:20	100-41-4	
Hexachloro-1,3-butadiene	<0.24	ug/L	1.0	0.24	1		10/19/22 22:20	87-68-3	
Isopropylbenzene (Cumene)	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	98-82-8	
p-Isopropyltoluene	<0.11	ug/L	1.0	0.11	1		10/19/22 22:20	99-87-6	
Methylene Chloride	0.69J	ug/L	1.0	0.33	1		10/19/22 22:20	75-09-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Sample: Trip Blank	Lab ID: 10629409006	Collected: 10/12/22 00:00	Received: 10/12/22 15:42	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260D VOC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Minneapolis								
4-Methyl-2-pentanone (MIBK)	<0.80	ug/L	10.0	0.80	1		10/19/22 22:20	108-10-1	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		10/19/22 22:20	1634-04-4	
Naphthalene	<0.18	ug/L	1.0	0.18	1		10/19/22 22:20	91-20-3	
n-Propylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 22:20	103-65-1	
Styrene	<0.097	ug/L	1.0	0.097	1		10/19/22 22:20	100-42-5	
1,1,1,2-Tetrachloroethane	<0.19	ug/L	1.0	0.19	1		10/19/22 22:20	630-20-6	
1,1,2,2-Tetrachloroethane	<0.15	ug/L	1.0	0.15	1		10/19/22 22:20	79-34-5	
Tetrachloroethene	<0.10	ug/L	1.0	0.10	1		10/19/22 22:20	127-18-4	
Tetrahydrofuran	<1.4	ug/L	10.0	1.4	1		10/19/22 22:20	109-99-9	L1
Toluene	<0.10	ug/L	1.0	0.10	1		10/19/22 22:20	108-88-3	
1,2,3-Trichlorobenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 22:20	87-61-6	
1,2,4-Trichlorobenzene	<0.14	ug/L	1.0	0.14	1		10/19/22 22:20	120-82-1	
1,1,1-Trichloroethane	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	71-55-6	
1,1,2-Trichloroethane	<0.22	ug/L	1.0	0.22	1		10/19/22 22:20	79-00-5	
Trichloroethene	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	1.0	0.12	1		10/19/22 22:20	75-69-4	
1,2,3-Trichloropropane	<0.38	ug/L	2.5	0.38	1		10/19/22 22:20	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.15	ug/L	1.0	0.15	1		10/19/22 22:20	76-13-1	
1,2,4-Trimethylbenzene	<0.13	ug/L	1.0	0.13	1		10/19/22 22:20	95-63-6	
1,3,5-Trimethylbenzene	<0.11	ug/L	1.0	0.11	1		10/19/22 22:20	108-67-8	
Vinyl chloride	<0.046	ug/L	1.0	0.046	1		10/19/22 22:20	75-01-4	
Xylene (Total)	<0.20	ug/L	3.0	0.20	1		10/19/22 22:20	1330-20-7	
m&p-Xylene	<0.20	ug/L	2.0	0.20	1		10/19/22 22:20	179601-23-1	
o-Xylene	<0.18	ug/L	1.0	0.18	1		10/19/22 22:20	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1		10/19/22 22:20	2199-69-1	
4-Bromofluorobenzene (S)	97	%.	75-125		1		10/19/22 22:20	460-00-4	
Toluene-d8 (S)	100	%.	75-125		1		10/19/22 22:20	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

QC Batch:	847135	Analysis Method:	EPA 200.7
QC Batch Method:	EPA 200.7	Analysis Description:	200.7 MET Dissolved
		Laboratory:	Pace Analytical Services - Minneapolis
Associated Lab Samples: 10629409001, 10629409002, 10629409003, 10629409004, 10629409005			

METHOD BLANK: 4482541 Matrix: Water

Associated Lab Samples: 10629409001, 10629409002, 10629409003, 10629409004, 10629409005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium, Dissolved	ug/L	<97.2	500	10/18/22 11:25	
Lead, Dissolved	ug/L	<2.6	10.0	10/18/22 11:25	
Magnesium, Dissolved	ug/L	<28.7	500	10/18/22 11:25	

LABORATORY CONTROL SAMPLE: 4482542

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	20000	19600	98	85-115	
Lead, Dissolved	ug/L	1000	986	99	85-115	
Magnesium, Dissolved	ug/L	20000	19800	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4482543 4482544

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
Calcium, Dissolved	ug/L	18500	20000	20000	39500	38600	105	101	70-130	2	20
Lead, Dissolved	ug/L	<2.6	1000	1000	992	965	99	97	70-130	3	20
Magnesium, Dissolved	ug/L	2640	20000	20000	23100	22400	102	99	70-130	3	20

MATRIX SPIKE SAMPLE: 4482545

Parameter	Units	10629409001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	40800	20000	61300	102	70-130	
Lead, Dissolved	ug/L	<2.6	1000	970	97	70-130	
Magnesium, Dissolved	ug/L	40700	20000	61900	106	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

QC Batch:	847600	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV 465 W
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10629409001, 10629409002, 10629409003

METHOD BLANK: 4484223 Matrix: Water

Associated Lab Samples: 10629409001, 10629409002, 10629409003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.19	1.0	10/18/22 13:00	
1,1,1-Trichloroethane	ug/L	<0.12	1.0	10/18/22 13:00	
1,1,2,2-Tetrachloroethane	ug/L	<0.15	1.0	10/18/22 13:00	
1,1,2-Trichloroethane	ug/L	<0.22	1.0	10/18/22 13:00	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.15	1.0	10/18/22 13:00	
1,1-Dichloroethane	ug/L	<0.11	1.0	10/18/22 13:00	
1,1-Dichloroethene	ug/L	<0.13	1.0	10/18/22 13:00	
1,1-Dichloropropene	ug/L	<0.12	1.0	10/18/22 13:00	
1,2,3-Trichlorobenzene	ug/L	<0.13	1.0	10/18/22 13:00	
1,2,3-Trichloropropane	ug/L	<0.38	2.5	10/18/22 13:00	
1,2,4-Trichlorobenzene	ug/L	<0.14	1.0	10/18/22 13:00	
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	10/18/22 13:00	
1,2-Dibromo-3-chloropropane	ug/L	<0.36	2.5	10/18/22 13:00	
1,2-Dibromoethane (EDB)	ug/L	<0.20	1.0	10/18/22 13:00	
1,2-Dichlorobenzene	ug/L	<0.13	1.0	10/18/22 13:00	
1,2-Dichloroethane	ug/L	<0.17	1.0	10/18/22 13:00	
1,2-Dichloropropane	ug/L	<0.15	1.0	10/18/22 13:00	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	10/18/22 13:00	
1,3-Dichlorobenzene	ug/L	<0.12	1.0	10/18/22 13:00	
1,3-Dichloropropane	ug/L	<0.16	1.0	10/18/22 13:00	
1,4-Dichlorobenzene	ug/L	<0.15	1.0	10/18/22 13:00	
2,2-Dichloropropane	ug/L	<0.12	1.0	10/18/22 13:00	
2-Butanone (MEK)	ug/L	<0.93	10.0	10/18/22 13:00	
2-Chlorotoluene	ug/L	<0.098	1.0	10/18/22 13:00	
4-Chlorotoluene	ug/L	<0.12	1.0	10/18/22 13:00	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.80	10.0	10/18/22 13:00	
Acetone	ug/L	<1.9	10.0	10/18/22 13:00	
Allyl chloride	ug/L	<0.15	2.5	10/18/22 13:00	
Benzene	ug/L	<0.10	1.0	10/18/22 13:00	
Bromobenzene	ug/L	<0.12	1.0	10/18/22 13:00	
Bromochloromethane	ug/L	<0.15	1.0	10/18/22 13:00	
Bromodichloromethane	ug/L	<0.12	1.0	10/18/22 13:00	
Bromoform	ug/L	<0.22	1.0	10/18/22 13:00	
Bromomethane	ug/L	0.85J	2.5	10/18/22 13:00	
Carbon tetrachloride	ug/L	<0.13	1.0	10/18/22 13:00	
Chlorobenzene	ug/L	<0.13	1.0	10/18/22 13:00	
Chloroethane	ug/L	<0.21	1.0	10/18/22 13:00	
Chloroform	ug/L	<0.23	1.0	10/18/22 13:00	
Chloromethane	ug/L	<0.17	1.0	10/18/22 13:00	
cis-1,2-Dichloroethene	ug/L	<0.15	1.0	10/18/22 13:00	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

METHOD BLANK: 4484223

Matrix: Water

Associated Lab Samples: 10629409001, 10629409002, 10629409003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	<0.057	1.0	10/18/22 13:00	
Dibromochloromethane	ug/L	<0.20	1.0	10/18/22 13:00	
Dibromomethane	ug/L	<0.17	1.0	10/18/22 13:00	
Dichlorodifluoromethane	ug/L	<0.079	1.0	10/18/22 13:00	
Dichlorofluoromethane	ug/L	<0.15	1.0	10/18/22 13:00	
Diethyl ether (Ethyl ether)	ug/L	<0.19	2.5	10/18/22 13:00	
Ethylbenzene	ug/L	<0.11	1.0	10/18/22 13:00	
Hexachloro-1,3-butadiene	ug/L	<0.24	1.0	10/18/22 13:00	
Isopropylbenzene (Cumene)	ug/L	<0.12	1.0	10/18/22 13:00	
m&p-Xylene	ug/L	<0.20	2.0	10/18/22 13:00	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	10/18/22 13:00	
Methylene Chloride	ug/L	<0.33	1.0	10/18/22 13:00	
n-Butylbenzene	ug/L	<0.096	1.0	10/18/22 13:00	
n-Propylbenzene	ug/L	<0.11	1.0	10/18/22 13:00	
Naphthalene	ug/L	<0.18	1.0	10/18/22 13:00	
o-Xylene	ug/L	<0.18	1.0	10/18/22 13:00	
p-Isopropyltoluene	ug/L	<0.11	1.0	10/18/22 13:00	
sec-Butylbenzene	ug/L	<0.097	1.0	10/18/22 13:00	
Styrene	ug/L	<0.097	1.0	10/18/22 13:00	
tert-Butylbenzene	ug/L	<0.091	1.0	10/18/22 13:00	
Tetrachloroethene	ug/L	<0.10	1.0	10/18/22 13:00	
Tetrahydrofuran	ug/L	<1.4	10.0	10/18/22 13:00	
Toluene	ug/L	<0.10	1.0	10/18/22 13:00	
trans-1,2-Dichloroethene	ug/L	<0.14	1.0	10/18/22 13:00	
trans-1,3-Dichloropropene	ug/L	<0.13	1.0	10/18/22 13:00	
Trichloroethene	ug/L	<0.12	1.0	10/18/22 13:00	
Trichlorofluoromethane	ug/L	<0.12	1.0	10/18/22 13:00	
Vinyl chloride	ug/L	<0.046	1.0	10/18/22 13:00	
Xylene (Total)	ug/L	<0.20	3.0	10/18/22 13:00	
1,2-Dichlorobenzene-d4 (S)	%.	100	75-125	10/18/22 13:00	
4-Bromofluorobenzene (S)	%.	95	75-125	10/18/22 13:00	
Toluene-d8 (S)	%.	100	75-125	10/18/22 13:00	

LABORATORY CONTROL SAMPLE: 4484224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.6	108	75-125	
1,1,1-Trichloroethane	ug/L	20	21.0	105	72-125	
1,1,2,2-Tetrachloroethane	ug/L	20	20.9	104	70-125	
1,1,2-Trichloroethane	ug/L	20	20.6	103	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	20.6	103	63-125	
1,1-Dichloroethane	ug/L	20	19.9	100	67-125	
1,1-Dichloroethene	ug/L	20	20.0	100	67-125	
1,1-Dichloropropene	ug/L	20	20.7	104	70-125	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

LABORATORY CONTROL SAMPLE: 4484224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichlorobenzene	ug/L	20	20.5	102	68-125	
1,2,3-Trichloropropane	ug/L	20	22.0	110	74-125	
1,2,4-Trichlorobenzene	ug/L	20	19.9	100	68-125	
1,2,4-Trimethylbenzene	ug/L	20	21.4	107	75-125	
1,2-Dibromo-3-chloropropane	ug/L	20	21.3	107	54-131	
1,2-Dibromoethane (EDB)	ug/L	20	21.9	109	75-125	
1,2-Dichlorobenzene	ug/L	20	20.4	102	75-125	
1,2-Dichloroethane	ug/L	20	21.0	105	75-125	
1,2-Dichloropropane	ug/L	20	19.4	97	70-128	
1,3,5-Trimethylbenzene	ug/L	20	20.8	104	75-125	
1,3-Dichlorobenzene	ug/L	20	20.6	103	75-125	
1,3-Dichloropropane	ug/L	20	20.3	101	75-125	
1,4-Dichlorobenzene	ug/L	20	20.6	103	75-125	
2,2-Dichloropropane	ug/L	20	20.2	101	49-125	
2-Butanone (MEK)	ug/L	100	116	116	56-138	
2-Chlorotoluene	ug/L	20	20.1	100	70-125	
4-Chlorotoluene	ug/L	20	20.2	101	70-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	125	125	64-133	
Acetone	ug/L	100	133	133	42-131 L1	
Allyl chloride	ug/L	20	19.5	97	51-133	
Benzene	ug/L	20	20.1	101	73-125	
Bromobenzene	ug/L	20	20.1	100	75-125	
Bromochloromethane	ug/L	20	22.0	110	75-125	
Bromodichloromethane	ug/L	20	21.4	107	74-125	
Bromoform	ug/L	20	26.9	134	61-125 L1	
Bromomethane	ug/L	20	28.9	144	30-125 L1	
Carbon tetrachloride	ug/L	20	22.0	110	58-125	
Chlorobenzene	ug/L	20	20.6	103	75-125	
Chloroethane	ug/L	20	18.1	90	58-125	
Chloroform	ug/L	20	20.6	103	74-125	
Chloromethane	ug/L	20	17.3	86	38-142	
cis-1,2-Dichloroethene	ug/L	20	21.0	105	75-125	
cis-1,3-Dichloropropene	ug/L	20	20.7	103	72-125	
Dibromochloromethane	ug/L	20	22.9	115	73-125	
Dibromomethane	ug/L	20	22.4	112	68-125	
Dichlorodifluoromethane	ug/L	20	23.1	115	46-149	
Dichlorofluoromethane	ug/L	20	20.2	101	71-126	
Diethyl ether (Ethyl ether)	ug/L	20	20.5	103	68-127	
Ethylbenzene	ug/L	20	21.0	105	75-125	
Hexachloro-1,3-butadiene	ug/L	20	20.7	103	52-131	
Isopropylbenzene (Cumene)	ug/L	20	21.5	107	74-125	
m&p-Xylene	ug/L	40	41.7	104	72-125	
Methyl-tert-butyl ether	ug/L	20	21.2	106	75-125	
Methylene Chloride	ug/L	20	19.1	96	70-125	
n-Butylbenzene	ug/L	20	19.7	98	68-125	
n-Propylbenzene	ug/L	20	21.0	105	70-125	
Naphthalene	ug/L	20	21.5	107	66-127	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

LABORATORY CONTROL SAMPLE: 4484224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	20	20.8	104	73-125	
p-Isopropyltoluene	ug/L	20	21.8	109	72-125	
sec-Butylbenzene	ug/L	20	21.6	108	72-125	
Styrene	ug/L	20	23.3	116	75-125	
tert-Butylbenzene	ug/L	20	21.0	105	74-125	
Tetrachloroethene	ug/L	20	21.1	105	72-125	
Tetrahydrofuran	ug/L	100	138	138	75-125 L1	
Toluene	ug/L	20	20.5	102	74-125	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	73-125	
trans-1,3-Dichloropropene	ug/L	20	24.0	120	72-125	
Trichloroethene	ug/L	20	21.7	108	75-125	
Trichlorofluoromethane	ug/L	20	21.4	107	62-136	
Vinyl chloride	ug/L	20	18.8	94	55-139	
Xylene (Total)	ug/L	60	62.5	104	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			98	75-125	
4-Bromofluorobenzene (S)	%.			101	75-125	
Toluene-d8 (S)	%.			100	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4484230 4484231

Parameter	Units	MS		MSD		MS		MSD		% Rec		Max	
		10629571010	Spike Result	Spike Conc.	MS Result	MSD Result	% Rec	MSD % Rec	RPD	RPD	Qual		
1,1,1,2-Tetrachloroethane	ug/L	<0.19	20	20	30.1	24.5	150	123	75-130	20	30	M1	
1,1,1-Trichloroethane	ug/L	<0.12	20	20	32.6	25.8	163	129	64-143	23	30	M1	
1,1,2,2-Tetrachloroethane	ug/L	<0.15	20	20	27.5	22.8	138	114	48-139	19	30		
1,1,2-Trichloroethane	ug/L	<0.22	20	20	28.2	22.9	141	114	68-135	21	30	M1	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.15	20	20	34.3	26.4	171	132	52-150	26	30	M1	
1,1-Dichloroethane	ug/L	<0.11	20	20	28.0	22.9	140	115	62-146	20	30		
1,1-Dichloroethene	ug/L	<0.13	20	20	30.8	24.1	154	121	44-150	24	30	M1	
1,1-Dichloropropene	ug/L	<0.12	20	20	33.7	26.5	168	132	55-150	24	30	M1	
1,2,3-Trichlorobenzene	ug/L	<0.13	20	20	27.2	22.1	136	111	44-150	20	30		
1,2,3-Trichloropropane	ug/L	<0.38	20	20	28.9	23.3	144	116	64-126	22	30	M1	
1,2,4-Trichlorobenzene	ug/L	<0.14	20	20	26.7	22.3	134	112	42-147	18	30		
1,2,4-Trimethylbenzene	ug/L	<0.13	20	20	31.2	25.1	156	125	62-138	22	30	M1	
1,2-Dibromo-3-chloropropane	ug/L	<0.36	20	20	27.3	21.2	136	106	53-132	25	30	M1	
1,2-Dibromoethane (EDB)	ug/L	<0.20	20	20	29.6	24.1	148	121	69-129	20	30	M1	
1,2-Dichlorobenzene	ug/L	<0.13	20	20	27.8	22.7	139	113	70-125	20	30	M1	
1,2-Dichloroethane	ug/L	<0.17	20	20	28.9	22.9	144	115	70-133	23	30	M1	
1,2-Dichloropropane	ug/L	<0.15	20	20	27.7	22.1	139	110	61-142	23	30		
1,3,5-Trimethylbenzene	ug/L	<0.11	20	20	30.6	25.2	153	126	64-135	19	30	M1	
1,3-Dichlorobenzene	ug/L	<0.12	20	20	28.8	23.8	144	119	69-131	19	30	M1	
1,3-Dichloropropane	ug/L	<0.16	20	20	28.0	22.5	140	112	70-129	22	30	M1	
1,4-Dichlorobenzene	ug/L	<0.15	20	20	28.3	23.3	141	116	67-127	19	30	M1	
2,2-Dichloropropane	ug/L	<0.12	20	20	31.6	25.6	158	128	38-148	21	30	M1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4484230 4484231											
Parameter	Units	MS		MSD		MS		MSD		% Rec		Max	
		10629571010	Spike Conc.	Spike Conc.	Result	MSD	Result	% Rec	MSD	% Rec	Limits	RPD	RPD
2-Butanone (MEK)	ug/L	<0.93	100	100	158	121	158	121	46-138	27	30	M1	
2-Chlorotoluene	ug/L	<0.098	20	20	29.7	23.7	149	119	52-142	22	30	M1	
4-Chlorotoluene	ug/L	<0.12	20	20	29.6	24.1	148	121	59-132	20	30	M1	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.80	100	100	172	134	172	134	42-145	25	30	M1	
Acetone	ug/L	<1.9	100	100	166	126	166	126	42-132	27	30	M0	
Allyl chloride	ug/L	<0.15	20	20	29.4	23.7	147	119	31-150	21	30		
Benzene	ug/L	<0.10	20	20	29.3	23.6	146	118	65-140	22	30	M1	
Bromobenzene	ug/L	<0.12	20	20	28.0	22.9	140	115	65-129	20	30	M1	
Bromoform	ug/L	<0.15	20	20	29.4	23.5	147	118	67-147	22	30		
Bromochloromethane	ug/L	<0.12	20	20	28.8	22.9	144	115	66-136	23	30	M1	
Bromodichloromethane	ug/L	<0.12	20	20	32.9	27.1	165	136	59-137	19	30	M0	
Bromomethane	ug/L	0.88J	20	20	41.1	33.7	201	164	30-150	20	30	M0,v1	
Carbon tetrachloride	ug/L	<0.13	20	20	33.8	26.2	169	131	58-149	25	30	M1	
Chlorobenzene	ug/L	<0.13	20	20	29.3	23.4	147	117	74-125	23	30	M1	
Chloroethane	ug/L	<0.21	20	20	24.5	19.9	122	100	34-150	21	30		
Chloroform	ug/L	<0.23	20	20	29.8	22.9	149	115	54-148	26	30	M1	
Chloromethane	ug/L	<0.17	20	20	25.2	21.0	126	104	38-150	18	30		
cis-1,2-Dichloroethene	ug/L	<0.15	20	20	29.2	23.5	146	117	54-149	22	30		
cis-1,3-Dichloropropene	ug/L	<0.057	20	20	27.9	22.4	140	112	64-130	22	30	M1	
Dibromochloromethane	ug/L	<0.20	20	20	29.5	23.9	147	119	71-135	21	30	M1	
Dibromomethane	ug/L	<0.17	20	20	30.1	24.4	151	122	65-141	21	30	M1	
Dichlorodifluoromethane	ug/L	<0.079	20	20	35.4	29.4	177	147	32-150	18	30	M1	
Dichlorofluoromethane	ug/L	<0.15	20	20	27.7	22.6	138	113	58-150	20	30		
Diethyl ether (Ethyl ether)	ug/L	<0.19	20	20	27.5	22.4	138	112	51-148	21	30		
Ethylbenzene	ug/L	<0.11	20	20	31.4	25.0	156	125	66-126	23	30	M1	
Hexachloro-1,3-butadiene	ug/L	<0.24	20	20	29.5	24.5	147	123	31-150	18	30		
Isopropylbenzene (Cumene)	ug/L	<0.12	20	20	32.7	26.4	164	132	72-133	22	30	M1	
m-&Xylene	ug/L	<0.20	40	40	63.3	50.1	158	125	69-134	23	30	M1	
Methyl-tert-butyl ether	ug/L	<0.13	20	20	28.8	22.9	144	115	65-137	23	30	M1	
Methylene Chloride	ug/L	<0.33	20	20	26.6	21.4	133	107	59-137	22	30		
n-Butylbenzene	ug/L	<0.096	20	20	29.0	23.9	145	119	52-141	19	30	M1	
n-Propylbenzene	ug/L	<0.11	20	20	31.3	25.5	156	127	53-138	20	30	M1	
Naphthalene	ug/L	<0.18	20	20	28.9	23.9	144	119	56-141	19	30	M1	
o-Xylene	ug/L	<0.18	20	20	30.6	24.6	153	123	73-133	22	30	M1	
p-Isopropyltoluene	ug/L	<0.11	20	20	31.9	26.3	160	131	59-139	19	30	M1	
sec-Butylbenzene	ug/L	<0.097	20	20	32.0	25.9	160	129	60-138	21	30	M1	
Styrene	ug/L	<0.097	20	20	33.7	26.8	168	134	67-138	23	30	M1	
tert-Butylbenzene	ug/L	<0.091	20	20	31.6	25.5	158	128	58-141	21	30	M1	
Tetrachloroethene	ug/L	<0.10	20	20	33.0	26.5	165	133	66-141	22	30	M1	
Tetrahydrofuran	ug/L	<1.4	100	100	182	138	182	138	57-133	27	30	M0,v1	
Toluene	ug/L	<0.10	20	20	29.8	24.1	149	120	69-131	21	30	M1	
trans-1,2-Dichloroethene	ug/L	<0.14	20	20	31.3	24.0	156	120	47-150	27	30	M1	
trans-1,3-Dichloropropene	ug/L	<0.13	20	20	32.5	26.0	162	130	68-129	22	30	M1	
Trichloroethene	ug/L	<0.12	20	20	32.4	25.8	162	129	68-139	23	30	M1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4484230		4484231									
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10629571010	Spike Conc.	Spike Conc.	MS Result								
Trichlorofluoromethane	ug/L	<0.12	20	20	31.6	26.0	158	130	49-150	20	30	M1	
Vinyl chloride	ug/L	<0.046	20	20	27.3	23.4	136	117	55-150	15	30		
Xylene (Total)	ug/L	<0.20	60	60	93.9	74.7	157	125	68-136	23	30	MS	
1,2-Dichlorobenzene-d4 (S)	%.						96	95	75-125				
4-Bromofluorobenzene (S)	%.						105	106	75-125				
Toluene-d8 (S)	%.						100	99	75-125				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

QC Batch:	847898	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV 465 W
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10629409004, 10629409005

METHOD BLANK: 4485550 Matrix: Water

Associated Lab Samples: 10629409004, 10629409005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.19	1.0	10/19/22 13:11	
1,1,1-Trichloroethane	ug/L	<0.12	1.0	10/19/22 13:11	
1,1,2,2-Tetrachloroethane	ug/L	<0.15	1.0	10/19/22 13:11	
1,1,2-Trichloroethane	ug/L	<0.22	1.0	10/19/22 13:11	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.15	1.0	10/19/22 13:11	
1,1-Dichloroethane	ug/L	<0.11	1.0	10/19/22 13:11	
1,1-Dichloroethene	ug/L	<0.13	1.0	10/19/22 13:11	
1,1-Dichloropropene	ug/L	<0.12	1.0	10/19/22 13:11	
1,2,3-Trichlorobenzene	ug/L	<0.13	1.0	10/19/22 13:11	
1,2,3-Trichloropropane	ug/L	<0.38	2.5	10/19/22 13:11	
1,2,4-Trichlorobenzene	ug/L	<0.14	1.0	10/19/22 13:11	
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	10/19/22 13:11	
1,2-Dibromo-3-chloropropane	ug/L	<0.36	2.5	10/19/22 13:11	
1,2-Dibromoethane (EDB)	ug/L	<0.20	1.0	10/19/22 13:11	
1,2-Dichlorobenzene	ug/L	<0.13	1.0	10/19/22 13:11	
1,2-Dichloroethane	ug/L	<0.17	1.0	10/19/22 13:11	
1,2-Dichloropropane	ug/L	<0.15	1.0	10/19/22 13:11	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	10/19/22 13:11	
1,3-Dichlorobenzene	ug/L	<0.12	1.0	10/19/22 13:11	
1,3-Dichloropropane	ug/L	<0.16	1.0	10/19/22 13:11	
1,4-Dichlorobenzene	ug/L	<0.15	1.0	10/19/22 13:11	
2,2-Dichloropropane	ug/L	<0.12	1.0	10/19/22 13:11	
2-Butanone (MEK)	ug/L	<0.93	10.0	10/19/22 13:11	
2-Chlorotoluene	ug/L	<0.098	1.0	10/19/22 13:11	
4-Chlorotoluene	ug/L	<0.12	1.0	10/19/22 13:11	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.80	10.0	10/19/22 13:11	
Acetone	ug/L	<1.9	10.0	10/19/22 13:11	
Allyl chloride	ug/L	<0.15	2.5	10/19/22 13:11	
Benzene	ug/L	<0.10	1.0	10/19/22 13:11	
Bromobenzene	ug/L	<0.12	1.0	10/19/22 13:11	
Bromochloromethane	ug/L	<0.15	1.0	10/19/22 13:11	
Bromodichloromethane	ug/L	<0.12	1.0	10/19/22 13:11	
Bromoform	ug/L	<0.22	1.0	10/19/22 13:11	
Bromomethane	ug/L	0.52J	2.5	10/19/22 13:11	
Carbon tetrachloride	ug/L	<0.13	1.0	10/19/22 13:11	
Chlorobenzene	ug/L	<0.13	1.0	10/19/22 13:11	
Chloroethane	ug/L	<0.21	1.0	10/19/22 13:11	
Chloroform	ug/L	<0.23	1.0	10/19/22 13:11	
Chloromethane	ug/L	<0.17	1.0	10/19/22 13:11	
cis-1,2-Dichloroethene	ug/L	<0.15	1.0	10/19/22 13:11	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

METHOD BLANK: 4485550

Matrix: Water

Associated Lab Samples: 10629409004, 10629409005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	<0.057	1.0	10/19/22 13:11	
Dibromochloromethane	ug/L	<0.20	1.0	10/19/22 13:11	
Dibromomethane	ug/L	<0.17	1.0	10/19/22 13:11	
Dichlorodifluoromethane	ug/L	<0.079	1.0	10/19/22 13:11	
Dichlorofluoromethane	ug/L	<0.15	1.0	10/19/22 13:11	
Diethyl ether (Ethyl ether)	ug/L	<0.19	2.5	10/19/22 13:11	
Ethylbenzene	ug/L	<0.11	1.0	10/19/22 13:11	
Hexachloro-1,3-butadiene	ug/L	<0.24	1.0	10/19/22 13:11	
Isopropylbenzene (Cumene)	ug/L	<0.12	1.0	10/19/22 13:11	
m&p-Xylene	ug/L	<0.20	2.0	10/19/22 13:11	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	10/19/22 13:11	
Methylene Chloride	ug/L	<0.33	1.0	10/19/22 13:11	
n-Butylbenzene	ug/L	<0.096	1.0	10/19/22 13:11	
n-Propylbenzene	ug/L	<0.11	1.0	10/19/22 13:11	
Naphthalene	ug/L	<0.18	1.0	10/19/22 13:11	
o-Xylene	ug/L	<0.18	1.0	10/19/22 13:11	
p-Isopropyltoluene	ug/L	<0.11	1.0	10/19/22 13:11	
sec-Butylbenzene	ug/L	<0.097	1.0	10/19/22 13:11	
Styrene	ug/L	<0.097	1.0	10/19/22 13:11	
tert-Butylbenzene	ug/L	<0.091	1.0	10/19/22 13:11	
Tetrachloroethene	ug/L	<0.10	1.0	10/19/22 13:11	
Tetrahydrofuran	ug/L	<1.4	10.0	10/19/22 13:11	
Toluene	ug/L	<0.10	1.0	10/19/22 13:11	
trans-1,2-Dichloroethene	ug/L	<0.14	1.0	10/19/22 13:11	
trans-1,3-Dichloropropene	ug/L	<0.13	1.0	10/19/22 13:11	
Trichloroethene	ug/L	<0.12	1.0	10/19/22 13:11	
Trichlorofluoromethane	ug/L	<0.12	1.0	10/19/22 13:11	
Vinyl chloride	ug/L	<0.046	1.0	10/19/22 13:11	
Xylene (Total)	ug/L	<0.20	3.0	10/19/22 13:11	
1,2-Dichlorobenzene-d4 (S)	%.	98	75-125	10/19/22 13:11	
4-Bromofluorobenzene (S)	%.	97	75-125	10/19/22 13:11	
Toluene-d8 (S)	%.	99	75-125	10/19/22 13:11	

LABORATORY CONTROL SAMPLE: 4485551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.2	106	75-125	
1,1,1-Trichloroethane	ug/L	20	20.9	105	72-125	
1,1,2,2-Tetrachloroethane	ug/L	20	18.9	95	70-125	
1,1,2-Trichloroethane	ug/L	20	19.8	99	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	20.6	103	63-125	
1,1-Dichloroethane	ug/L	20	19.4	97	67-125	
1,1-Dichloroethene	ug/L	20	19.9	100	67-125	
1,1-Dichloropropene	ug/L	20	21.1	106	70-125	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

LABORATORY CONTROL SAMPLE: 4485551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichlorobenzene	ug/L	20	20.3	102	68-125	
1,2,3-Trichloropropane	ug/L	20	20.7	103	74-125	
1,2,4-Trichlorobenzene	ug/L	20	19.9	99	68-125	
1,2,4-Trimethylbenzene	ug/L	20	21.8	109	75-125	
1,2-Dibromo-3-chloropropane	ug/L	20	19.2	96	54-131	
1,2-Dibromoethane (EDB)	ug/L	20	20.4	102	75-125	
1,2-Dichlorobenzene	ug/L	20	20.0	100	75-125	
1,2-Dichloroethane	ug/L	20	20.1	101	75-125	
1,2-Dichloropropane	ug/L	20	18.7	93	70-128	
1,3,5-Trimethylbenzene	ug/L	20	21.4	107	75-125	
1,3-Dichlorobenzene	ug/L	20	20.7	103	75-125	
1,3-Dichloropropane	ug/L	20	19.5	97	75-125	
1,4-Dichlorobenzene	ug/L	20	20.5	102	75-125	
2,2-Dichloropropane	ug/L	20	20.7	103	49-125	
2-Butanone (MEK)	ug/L	100	103	103	56-138	
2-Chlorotoluene	ug/L	20	20.7	103	70-125	
4-Chlorotoluene	ug/L	20	20.8	104	70-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	116	116	64-133	
Acetone	ug/L	100	109	109	42-131	
Allyl chloride	ug/L	20	19.0	95	51-133	
Benzene	ug/L	20	19.5	98	73-125	
Bromobenzene	ug/L	20	19.8	99	75-125	
Bromochloromethane	ug/L	20	20.6	103	75-125	
Bromodichloromethane	ug/L	20	20.1	101	74-125	
Bromoform	ug/L	20	23.4	117	61-125	
Bromomethane	ug/L	20	25.6	128	30-125 L1	
Carbon tetrachloride	ug/L	20	20.9	105	58-125	
Chlorobenzene	ug/L	20	20.5	103	75-125	
Chloroethane	ug/L	20	15.2	76	58-125	
Chloroform	ug/L	20	20.4	102	74-125	
Chloromethane	ug/L	20	16.8	84	38-142	
cis-1,2-Dichloroethene	ug/L	20	19.8	99	75-125	
cis-1,3-Dichloropropene	ug/L	20	19.5	98	72-125	
Dibromochloromethane	ug/L	20	20.3	102	73-125	
Dibromomethane	ug/L	20	21.5	107	68-125	
Dichlorodifluoromethane	ug/L	20	22.7	114	46-149	
Dichlorofluoromethane	ug/L	20	18.0	90	71-126	
Diethyl ether (Ethyl ether)	ug/L	20	19.5	98	68-127	
Ethylbenzene	ug/L	20	21.4	107	75-125	
Hexachloro-1,3-butadiene	ug/L	20	21.4	107	52-131	
Isopropylbenzene (Cumene)	ug/L	20	22.4	112	74-125	
m&p-Xylene	ug/L	40	42.6	106	72-125	
Methyl-tert-butyl ether	ug/L	20	19.6	98	75-125	
Methylene Chloride	ug/L	20	18.7	94	70-125	
n-Butylbenzene	ug/L	20	20.6	103	68-125	
n-Propylbenzene	ug/L	20	21.4	107	70-125	
Naphthalene	ug/L	20	20.5	102	66-127	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

LABORATORY CONTROL SAMPLE: 4485551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	20	20.9	104	73-125	
p-Isopropyltoluene	ug/L	20	22.5	112	72-125	
sec-Butylbenzene	ug/L	20	22.5	112	72-125	
Styrene	ug/L	20	23.2	116	75-125	
tert-Butylbenzene	ug/L	20	21.8	109	74-125	
Tetrachloroethene	ug/L	20	22.1	111	72-125	
Tetrahydrofuran	ug/L	100	121	121	75-125	
Toluene	ug/L	20	20.1	100	74-125	
trans-1,2-Dichloroethene	ug/L	20	21.3	106	73-125	
trans-1,3-Dichloropropene	ug/L	20	21.9	110	72-125	
Trichloroethene	ug/L	20	21.3	107	75-125	
Trichlorofluoromethane	ug/L	20	20.2	101	62-136	
Vinyl chloride	ug/L	20	17.2	86	55-139	
Xylene (Total)	ug/L	60	63.4	106	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			96	75-125	
4-Bromofluorobenzene (S)	%.			103	75-125	
Toluene-d8 (S)	%.			99	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4485553 4485554

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	
		10629410005	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec			RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	<3.8	400	400	408	412	102	103	75-130	1	30		
1,1,1-Trichloroethane	ug/L	<2.5	400	400	414	416	104	104	64-143	0	30		
1,1,2,2-Tetrachloroethane	ug/L	<2.9	400	400	402	399	101	100	48-139	1	30		
1,1,2-Trichloroethane	ug/L	<4.5	400	400	411	405	103	101	68-135	1	30		
1,1,2-Trichlorotrifluoroethane	ug/L	<3.1	400	400	390	405	98	101	52-150	4	30		
1,1-Dichloroethane	ug/L	<2.2	400	400	379	383	95	96	62-146	1	30		
1,1-Dichloroethene	ug/L	<2.6	400	400	382	393	96	98	44-150	3	30		
1,1-Dichloropropene	ug/L	<2.5	400	400	405	422	101	105	55-150	4	30		
1,2,3-Trichlorobenzene	ug/L	<2.7	400	400	405	412	101	103	44-150	2	30		
1,2,3-Trichloropropane	ug/L	<7.5	400	400	421	415	105	104	64-126	2	30		
1,2,4-Trichlorobenzene	ug/L	<2.8	400	400	410	424	103	106	42-147	3	30		
1,2,4-Trimethylbenzene	ug/L	2650	400	400	2880	2920	56	68	62-138	2	30	P6	
1,2-Dibromo-3-chloropropane	ug/L	<7.1	400	400	464	461	116	115	53-132	1	30		
1,2-Dibromoethane (EDB)	ug/L	<4.0	400	400	418	424	104	106	69-129	2	30		
1,2-Dichlorobenzene	ug/L	<2.6	400	400	406	411	102	103	70-125	1	30		
1,2-Dichloroethane	ug/L	<3.4	400	400	446	449	112	112	70-133	1	30		
1,2-Dichloropropane	ug/L	<3.0	400	400	385	392	96	98	61-142	2	30		
1,3,5-Trimethylbenzene	ug/L	784	400	400	1210	1220	106	109	64-135	1	30		
1,3-Dichlorobenzene	ug/L	<2.5	400	400	421	426	105	107	69-131	1	30		
1,3-Dichloropropane	ug/L	<3.2	400	400	398	403	99	101	70-129	1	30		
1,4-Dichlorobenzene	ug/L	<2.9	400	400	406	411	101	103	67-127	1	30		
2,2-Dichloropropane	ug/L	<2.3	400	400	401	399	100	100	38-148	1	30		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4485553 4485554											
Parameter	Units	MS		MSD		MS		MSD		% Rec		Max	
		10629410005	Spike Conc.	Spike Conc.	Result	MSD Result	% Rec	MSD % Rec	Limits	RPD	RPD	Qual	
2-Butanone (MEK)	ug/L	<18.7	2000	2000	2320	2210	116	111	46-138	5	30		
2-Chlorotoluene	ug/L	<2.0	400	400	734	727	184	182	52-142	1	30	M1	
4-Chlorotoluene	ug/L	<2.5	400	400	510	518	127	129	59-132	2	30		
4-Methyl-2-pentanone (MIBK)	ug/L	<16.1	2000	2000	2470	2500	124	125	42-145	1	30		
Acetone	ug/L	<38.0	2000	2000	2410	2380	120	119	42-132	1	30		
Allyl chloride	ug/L	<2.9	400	400	400	429	100	107	31-150	7	30		
Benzene	ug/L	1340	400	400	1660	1690	80	88	65-140	2	30		
Bromobenzene	ug/L	<2.4	400	400	401	400	100	100	65-129	0	30		
Bromochloromethane	ug/L	<3.0	400	400	407	413	102	103	67-147	1	30		
Bromodichloromethane	ug/L	<2.3	400	400	397	408	99	102	66-136	3	30		
Bromoform	ug/L	<4.5	400	400	489	487	122	122	59-137	1	30		
Bromomethane	ug/L	10.2J	400	400	562	562	138	138	30-150	0	30		
Carbon tetrachloride	ug/L	<2.7	400	400	416	417	104	104	58-149	0	30		
Chlorobenzene	ug/L	<2.7	400	400	403	408	101	102	74-125	1	30		
Chloroethane	ug/L	<4.1	400	400	327	319	82	80	34-150	3	30		
Chloroform	ug/L	<4.6	400	400	405	402	101	101	54-148	1	30		
Chloromethane	ug/L	<3.4	400	400	332	338	83	85	38-150	2	30		
cis-1,2-Dichloroethene	ug/L	<3.0	400	400	382	400	96	100	54-149	4	30		
cis-1,3-Dichloropropene	ug/L	<1.1	400	400	387	388	97	97	64-130	0	30		
Dibromochloromethane	ug/L	<4.1	400	400	405	412	101	103	71-135	2	30		
Dibromomethane	ug/L	<3.5	400	400	435	411	109	103	65-141	5	30		
Dichlorodifluoromethane	ug/L	<1.6	400	400	442	446	111	111	32-150	1	30		
Dichlorofluoromethane	ug/L	<3.0	400	400	344	366	86	91	58-150	6	30		
Diethyl ether (Ethyl ether)	ug/L	<3.9	400	400	387	391	97	98	51-148	1	30		
Ethylbenzene	ug/L	467	400	400	878	898	103	108	66-126	2	30		
Hexachloro-1,3-butadiene	ug/L	<4.7	400	400	403	419	101	105	31-150	4	30		
Isopropylbenzene (Cumene)	ug/L	20.5	400	400	480	487	115	117	72-133	1	30		
m-&p-Xylene	ug/L	8730	800	800	9070	9070	43	43	69-134	0	30	E,P6	
Methyl-tert-butyl ether	ug/L	<2.5	400	400	388	400	97	100	65-137	3	30		
Methylene Chloride	ug/L	<6.6	400	400	357	364	89	91	59-137	2	30		
n-Butylbenzene	ug/L	<1.9	400	400	461	475	115	119	52-141	3	30		
n-Propylbenzene	ug/L	31.7	400	400	451	466	105	109	53-138	3	30		
Naphthalene	ug/L	312	400	400	760	774	112	115	56-141	2	30		
o-Xylene	ug/L	3380	400	400	4200	4210	204	207	73-133	0	30	E,P6	
p-Isopropyltoluene	ug/L	<2.1	400	400	451	469	113	117	59-139	4	30		
sec-Butylbenzene	ug/L	6.7J	400	400	457	462	112	114	60-138	1	30		
Styrene	ug/L	<1.9	400	400	673	672	168	168	67-138	0	30	M1	
tert-Butylbenzene	ug/L	<1.8	400	400	443	451	111	113	58-141	2	30		
Tetrachloroethene	ug/L	<2.1	400	400	430	434	108	108	66-141	1	30		
Tetrahydrofuran	ug/L	<27.8	2000	2000	2460	2560	123	128	57-133	4	30		
Toluene	ug/L	2050	400	400	2390	2410	84	90	69-131	1	30		
trans-1,2-Dichloroethene	ug/L	<2.7	400	400	385	392	96	98	47-150	2	30		
trans-1,3-Dichloropropene	ug/L	<2.6	400	400	444	459	111	115	68-129	3	30		
Trichloroethene	ug/L	<2.4	400	400	413	420	103	105	68-139	2	30		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4485553		4485554							
Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
		10629410005	Spike Conc.	Spike Conc.	MS Result						
Trichlorofluoromethane	ug/L	<2.5	400	400	402	391	101	98	49-150	3	30
Vinyl chloride	ug/L	<0.92	400	400	351	361	88	90	55-150	3	30
Xylene (Total)	ug/L	12100	1200	1200	13300	13300	97	98	68-136	0	30 ES
1,2-Dichlorobenzene-d4 (S)	%.						99	99	75-125		
4-Bromofluorobenzene (S)	%.						108	110	75-125		
Toluene-d8 (S)	%.						99	99	75-125		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

QC Batch:	847958	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV 465 W
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10629409006

METHOD BLANK: 4485888 Matrix: Water

Associated Lab Samples: 10629409006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.19	1.0	10/19/22 22:04	
1,1,1-Trichloroethane	ug/L	<0.12	1.0	10/19/22 22:04	
1,1,2,2-Tetrachloroethane	ug/L	<0.15	1.0	10/19/22 22:04	
1,1,2-Trichloroethane	ug/L	<0.22	1.0	10/19/22 22:04	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.15	1.0	10/19/22 22:04	
1,1-Dichloroethane	ug/L	<0.11	1.0	10/19/22 22:04	
1,1-Dichloroethene	ug/L	<0.13	1.0	10/19/22 22:04	
1,1-Dichloropropene	ug/L	<0.12	1.0	10/19/22 22:04	
1,2,3-Trichlorobenzene	ug/L	<0.13	1.0	10/19/22 22:04	
1,2,3-Trichloropropane	ug/L	<0.38	2.5	10/19/22 22:04	
1,2,4-Trichlorobenzene	ug/L	<0.14	1.0	10/19/22 22:04	
1,2,4-Trimethylbenzene	ug/L	<0.13	1.0	10/19/22 22:04	
1,2-Dibromo-3-chloropropane	ug/L	<0.36	2.5	10/19/22 22:04	
1,2-Dibromoethane (EDB)	ug/L	<0.20	1.0	10/19/22 22:04	
1,2-Dichlorobenzene	ug/L	<0.13	1.0	10/19/22 22:04	
1,2-Dichloroethane	ug/L	<0.17	1.0	10/19/22 22:04	
1,2-Dichloropropane	ug/L	<0.15	1.0	10/19/22 22:04	
1,3,5-Trimethylbenzene	ug/L	<0.11	1.0	10/19/22 22:04	
1,3-Dichlorobenzene	ug/L	<0.12	1.0	10/19/22 22:04	
1,3-Dichloropropane	ug/L	<0.16	1.0	10/19/22 22:04	
1,4-Dichlorobenzene	ug/L	<0.15	1.0	10/19/22 22:04	
2,2-Dichloropropane	ug/L	<0.12	1.0	10/19/22 22:04	
2-Butanone (MEK)	ug/L	<0.93	10.0	10/19/22 22:04	
2-Chlorotoluene	ug/L	<0.098	1.0	10/19/22 22:04	
4-Chlorotoluene	ug/L	<0.12	1.0	10/19/22 22:04	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.80	10.0	10/19/22 22:04	
Acetone	ug/L	<1.9	10.0	10/19/22 22:04	
Allyl chloride	ug/L	<0.15	2.5	10/19/22 22:04	
Benzene	ug/L	<0.10	1.0	10/19/22 22:04	
Bromobenzene	ug/L	<0.12	1.0	10/19/22 22:04	
Bromochloromethane	ug/L	<0.15	1.0	10/19/22 22:04	
Bromodichloromethane	ug/L	<0.12	1.0	10/19/22 22:04	
Bromoform	ug/L	<0.22	1.0	10/19/22 22:04	
Bromomethane	ug/L	0.70J	2.5	10/19/22 22:04	
Carbon tetrachloride	ug/L	<0.13	1.0	10/19/22 22:04	
Chlorobenzene	ug/L	<0.13	1.0	10/19/22 22:04	
Chloroethane	ug/L	<0.21	1.0	10/19/22 22:04	
Chloroform	ug/L	<0.23	1.0	10/19/22 22:04	
Chloromethane	ug/L	<0.17	1.0	10/19/22 22:04	
cis-1,2-Dichloroethene	ug/L	<0.15	1.0	10/19/22 22:04	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

METHOD BLANK: 4485888

Matrix: Water

Associated Lab Samples: 10629409006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	<0.057	1.0	10/19/22 22:04	
Dibromochloromethane	ug/L	<0.20	1.0	10/19/22 22:04	
Dibromomethane	ug/L	<0.17	1.0	10/19/22 22:04	
Dichlorodifluoromethane	ug/L	<0.079	1.0	10/19/22 22:04	
Dichlorofluoromethane	ug/L	<0.15	1.0	10/19/22 22:04	
Diethyl ether (Ethyl ether)	ug/L	<0.19	2.5	10/19/22 22:04	
Ethylbenzene	ug/L	<0.11	1.0	10/19/22 22:04	
Hexachloro-1,3-butadiene	ug/L	<0.24	1.0	10/19/22 22:04	
Isopropylbenzene (Cumene)	ug/L	<0.12	1.0	10/19/22 22:04	
m&p-Xylene	ug/L	<0.20	2.0	10/19/22 22:04	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	10/19/22 22:04	
Methylene Chloride	ug/L	<0.33	1.0	10/19/22 22:04	
n-Butylbenzene	ug/L	<0.096	1.0	10/19/22 22:04	
n-Propylbenzene	ug/L	<0.11	1.0	10/19/22 22:04	
Naphthalene	ug/L	<0.18	1.0	10/19/22 22:04	
o-Xylene	ug/L	<0.18	1.0	10/19/22 22:04	
p-Isopropyltoluene	ug/L	<0.11	1.0	10/19/22 22:04	
sec-Butylbenzene	ug/L	<0.097	1.0	10/19/22 22:04	
Styrene	ug/L	<0.097	1.0	10/19/22 22:04	
tert-Butylbenzene	ug/L	<0.091	1.0	10/19/22 22:04	
Tetrachloroethene	ug/L	<0.10	1.0	10/19/22 22:04	
Tetrahydrofuran	ug/L	<1.4	10.0	10/19/22 22:04	
Toluene	ug/L	<0.10	1.0	10/19/22 22:04	
trans-1,2-Dichloroethene	ug/L	<0.14	1.0	10/19/22 22:04	
trans-1,3-Dichloropropene	ug/L	<0.13	1.0	10/19/22 22:04	
Trichloroethene	ug/L	<0.12	1.0	10/19/22 22:04	
Trichlorofluoromethane	ug/L	<0.12	1.0	10/19/22 22:04	
Vinyl chloride	ug/L	<0.046	1.0	10/19/22 22:04	
Xylene (Total)	ug/L	<0.20	3.0	10/19/22 22:04	
1,2-Dichlorobenzene-d4 (S)	%.	99	75-125	10/19/22 22:04	
4-Bromofluorobenzene (S)	%.	98	75-125	10/19/22 22:04	
Toluene-d8 (S)	%.	100	75-125	10/19/22 22:04	

LABORATORY CONTROL SAMPLE: 4485889

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.0	105	75-125	
1,1,1-Trichloroethane	ug/L	20	21.0	105	72-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.0	85	70-125	
1,1,2-Trichloroethane	ug/L	20	19.6	98	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	19.9	100	63-125	
1,1-Dichloroethane	ug/L	20	19.3	96	67-125	
1,1-Dichloroethene	ug/L	20	19.8	99	67-125	
1,1-Dichloropropene	ug/L	20	21.0	105	70-125	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

LABORATORY CONTROL SAMPLE: 4485889

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichlorobenzene	ug/L	20	19.8	99	68-125	
1,2,3-Trichloropropane	ug/L	20	20.7	104	74-125	
1,2,4-Trichlorobenzene	ug/L	20	19.0	95	68-125	
1,2,4-Trimethylbenzene	ug/L	20	21.3	107	75-125	
1,2-Dibromo-3-chloropropane	ug/L	20	18.8	94	54-131	
1,2-Dibromoethane (EDB)	ug/L	20	21.2	106	75-125	
1,2-Dichlorobenzene	ug/L	20	20.1	101	75-125	
1,2-Dichloroethane	ug/L	20	20.1	101	75-125	
1,2-Dichloropropane	ug/L	20	19.0	95	70-128	
1,3,5-Trimethylbenzene	ug/L	20	20.9	105	75-125	
1,3-Dichlorobenzene	ug/L	20	20.8	104	75-125	
1,3-Dichloropropane	ug/L	20	19.1	95	75-125	
1,4-Dichlorobenzene	ug/L	20	19.9	99	75-125	
2,2-Dichloropropane	ug/L	20	16.4	82	49-125	
2-Butanone (MEK)	ug/L	100	109	109	56-138	
2-Chlorotoluene	ug/L	20	20.2	101	70-125	
4-Chlorotoluene	ug/L	20	20.4	102	70-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	117	117	64-133	
Acetone	ug/L	100	126	126	42-131	
Allyl chloride	ug/L	20	19.6	98	51-133	
Benzene	ug/L	20	20.0	100	73-125	
Bromobenzene	ug/L	20	19.8	99	75-125	
Bromochloromethane	ug/L	20	21.4	107	75-125	
Bromodichloromethane	ug/L	20	20.4	102	74-125	
Bromoform	ug/L	20	23.5	118	61-125	
Bromomethane	ug/L	20	24.1	120	30-125	
Carbon tetrachloride	ug/L	20	21.2	106	58-125	
Chlorobenzene	ug/L	20	20.4	102	75-125	
Chloroethane	ug/L	20	16.7	83	58-125	
Chloroform	ug/L	20	20.4	102	74-125	
Chloromethane	ug/L	20	16.8	84	38-142	
cis-1,2-Dichloroethene	ug/L	20	19.2	96	75-125	
cis-1,3-Dichloropropene	ug/L	20	19.2	96	72-125	
Dibromochloromethane	ug/L	20	20.9	104	73-125	
Dibromomethane	ug/L	20	21.8	109	68-125	
Dichlorodifluoromethane	ug/L	20	21.4	107	46-149	
Dichlorofluoromethane	ug/L	20	18.7	94	71-126	
Diethyl ether (Ethyl ether)	ug/L	20	18.7	94	68-127	
Ethylbenzene	ug/L	20	21.1	106	75-125	
Hexachloro-1,3-butadiene	ug/L	20	19.2	96	52-131	
Isopropylbenzene (Cumene)	ug/L	20	21.5	108	74-125	
m&p-Xylene	ug/L	40	41.0	103	72-125	
Methyl-tert-butyl ether	ug/L	20	19.3	96	75-125	
Methylene Chloride	ug/L	20	18.9	95	70-125	
n-Butylbenzene	ug/L	20	19.2	96	68-125	
n-Propylbenzene	ug/L	20	20.9	104	70-125	
Naphthalene	ug/L	20	19.9	99	66-127	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

LABORATORY CONTROL SAMPLE: 4485889

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	20	20.7	103	73-125	
p-Isopropyltoluene	ug/L	20	21.7	109	72-125	
sec-Butylbenzene	ug/L	20	21.4	107	72-125	
Styrene	ug/L	20	22.8	114	75-125	
tert-Butylbenzene	ug/L	20	21.6	108	74-125	
Tetrachloroethene	ug/L	20	20.8	104	72-125	
Tetrahydrofuran	ug/L	100	131	131	75-125 L1	
Toluene	ug/L	20	20.4	102	74-125	
trans-1,2-Dichloroethene	ug/L	20	19.4	97	73-125	
trans-1,3-Dichloropropene	ug/L	20	21.0	105	72-125	
Trichloroethene	ug/L	20	23.3	116	75-125	
Trichlorofluoromethane	ug/L	20	20.0	100	62-136	
Vinyl chloride	ug/L	20	17.5	88	55-139	
Xylene (Total)	ug/L	60	61.7	103	72-125	
1,2-Dichlorobenzene-d4 (S)	%.			98	75-125	
4-Bromofluorobenzene (S)	%.			104	75-125	
Toluene-d8 (S)	%.			100	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4485894 4485895

Parameter	Units	MS		MSD		MS		MSD		% Rec		Max	
		10629571021	Spike Result	Spike Conc.	MS Result	MSD Result	% Rec	MSD % Rec	Limits	RPD	RPD	Qual	
1,1,1,2-Tetrachloroethane	ug/L	<0.19	20	20	19.1	18.6	96	93	75-130	3	30		
1,1,1-Trichloroethane	ug/L	<0.12	20	20	20.3	20.6	101	103	64-143	2	30		
1,1,2,2-Tetrachloroethane	ug/L	<0.15	20	20	17.2	17.1	86	85	48-139	1	30		
1,1,2-Trichloroethane	ug/L	<0.22	20	20	17.8	17.7	89	89	68-135	0	30		
1,1,2-Trichlorotrifluoroethane	ug/L	<0.15	20	20	21.3	20.3	107	101	52-150	5	30		
1,1-Dichloroethane	ug/L	<0.11	20	20	17.9	17.9	90	90	62-146	0	30		
1,1-Dichloroethene	ug/L	<0.13	20	20	19.4	19.5	97	98	44-150	0	30		
1,1-Dichloropropene	ug/L	<0.12	20	20	20.4	20.3	102	102	55-150	1	30		
1,2,3-Trichlorobenzene	ug/L	<0.13	20	20	15.2	15.0	76	75	44-150	2	30		
1,2,3-Trichloropropane	ug/L	<0.38	20	20	18.0	18.3	90	91	64-126	1	30		
1,2,4-Trichlorobenzene	ug/L	<0.14	20	20	15.0	14.6	75	73	42-147	3	30		
1,2,4-Trimethylbenzene	ug/L	<0.13	20	20	18.4	18.3	92	92	62-138	0	30		
1,2-Dibromo-3-chloropropane	ug/L	<0.36	20	20	16.1	16.7	81	84	53-132	4	30		
1,2-Dibromoethane (EDB)	ug/L	<0.20	20	20	18.6	18.4	93	92	69-129	1	30		
1,2-Dichlorobenzene	ug/L	<0.13	20	20	17.5	17.3	88	87	70-125	1	30		
1,2-Dichloroethane	ug/L	<0.17	20	20	17.8	18.1	89	91	70-133	2	30		
1,2-Dichloropropane	ug/L	<0.15	20	20	17.3	17.2	87	86	61-142	1	30		
1,3,5-Trimethylbenzene	ug/L	<0.11	20	20	18.0	17.7	90	89	64-135	1	30		
1,3-Dichlorobenzene	ug/L	<0.12	20	20	18.1	17.6	90	88	69-131	3	30		
1,3-Dichloropropane	ug/L	<0.16	20	20	17.1	17.3	85	86	70-129	1	30		
1,4-Dichlorobenzene	ug/L	<0.15	20	20	17.7	17.4	88	87	67-127	2	30		
2,2-Dichloropropane	ug/L	<0.12	20	20	15.8	15.0	79	75	38-148	5	30		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4485894 4485895												
Parameter	Units	MS		MSD		MS		MSD		MS		% Rec	Max	
		10629571021	Spike Conc.	Spike Conc.	Result	MSD Result	MS % Rec	MSD Result	MSD % Rec	Limits	RPD	RPD	Qual	
2-Butanone (MEK)	ug/L	<0.93	100	100	97.4	102	97	102	102	46-138	4	30		
2-Chlorotoluene	ug/L	<0.098	20	20	17.9	18.2	90	91	91	52-142	1	30		
4-Chlorotoluene	ug/L	<0.12	20	20	17.7	17.8	88	89	89	59-132	1	30		
4-Methyl-2-pentanone (MIBK)	ug/L	<0.80	100	100	100	103	100	103	103	42-145	3	30		
Acetone	ug/L	5.6J	100	100	107	130	102	124	42-132	19	30			
Allyl chloride	ug/L	<0.15	20	20	17.3	15.3	87	76	31-150	13	30			
Benzene	ug/L	<0.10	20	20	18.3	18.2	91	91	65-140	1	30			
Bromobenzene	ug/L	<0.12	20	20	17.7	17.4	88	87	65-129	2	30			
Bromoform	ug/L	<0.15	20	20	19.5	19.1	98	96	67-147	2	30			
Bromochloromethane	ug/L	<0.12	20	20	18.4	18.2	92	91	66-136	1	30			
Bromodichloromethane	ug/L	<0.12	20	20	20.3	20.8	101	104	59-137	2	30			
Bromoform	ug/L	<0.22	20	20	22.1	20.9	107	101	30-150	6	30			
Bromomethane	ug/L	0.62J	20	20	20.8	20.5	104	103	58-149	1	30			
Carbon tetrachloride	ug/L	<0.13	20	20	20.8	20.5	104	103	58-149					
Chlorobenzene	ug/L	<0.13	20	20	18.5	18.2	93	91	74-125	2	30			
Chloroethane	ug/L	<0.21	20	20	16.4	16.8	82	84	34-150	2	30			
Chloroform	ug/L	<0.23	20	20	19.0	18.5	95	93	54-148	2	30			
Chloromethane	ug/L	0.53J	20	20	17.6	18.2	85	88	38-150	3	30			
cis-1,2-Dichloroethene	ug/L	<0.15	20	20	18.1	18.7	90	93	54-149	3	30			
cis-1,3-Dichloropropene	ug/L	<0.057	20	20	16.4	16.2	82	81	64-130	1	30			
Dibromochloromethane	ug/L	<0.20	20	20	18.1	18.6	91	93	71-135	3	30			
Dibromomethane	ug/L	<0.17	20	20	20.1	19.8	101	99	65-141	2	30			
Dichlorodifluoromethane	ug/L	<0.079	20	20	23.2	24.8	116	124	32-150	7	30			
Dichlorofluoromethane	ug/L	<0.15	20	20	17.7	18.6	89	93	58-150	5	30			
Diethyl ether (Ethyl ether)	ug/L	<0.19	20	20	17.3	17.2	86	86	51-148	0	30			
Ethylbenzene	ug/L	<0.11	20	20	19.2	18.9	96	94	66-126	2	30			
Hexachloro-1,3-butadiene	ug/L	<0.24	20	20	14.4	13.6	72	68	31-150	6	30			
Isopropylbenzene (Cumene)	ug/L	<0.12	20	20	19.9	19.7	99	99	72-133	1	30			
m-&Xylene	ug/L	<0.20	40	40	38.4	38.0	96	95	69-134	1	30			
Methyl-tert-butyl ether	ug/L	<0.13	20	20	17.5	17.0	87	85	65-137	2	30			
Methylene Chloride	ug/L	<0.33	20	20	17.1	17.0	84	84	59-137	0	30			
n-Butylbenzene	ug/L	<0.096	20	20	15.9	15.7	79	79	52-141	1	30			
n-Propylbenzene	ug/L	<0.11	20	20	18.5	18.6	93	93	53-138	0	30			
Naphthalene	ug/L	<0.18	20	20	16.5	16.7	82	83	56-141	1	30			
o-Xylene	ug/L	<0.18	20	20	18.7	18.5	94	93	73-133	1	30			
p-Isopropyltoluene	ug/L	<0.11	20	20	18.8	18.5	94	93	59-139	2	30			
sec-Butylbenzene	ug/L	<0.097	20	20	18.4	18.5	92	92	60-138	1	30			
Styrene	ug/L	<0.097	20	20	19.9	19.5	100	97	67-138	2	30			
tert-Butylbenzene	ug/L	<0.091	20	20	19.0	18.8	95	94	58-141	1	30			
Tetrachloroethene	ug/L	<0.10	20	20	20.2	19.6	101	98	66-141	3	30			
Tetrahydrofuran	ug/L	<1.4	100	100	111	124	111	124	57-133	11	30			
Toluene	ug/L	<0.10	20	20	18.7	18.3	93	91	69-131	2	30			
trans-1,2-Dichloroethene	ug/L	<0.14	20	20	18.4	18.2	92	91	47-150	1	30			
trans-1,3-Dichloropropene	ug/L	<0.13	20	20	18.9	18.6	95	93	68-129	2	30			
Trichloroethene	ug/L	<0.12	20	20	19.9	20.1	99	101	68-139	1	30			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4485894		4485895									
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10629571021	Spike Conc.	Spike Conc.	MS Result								
Trichlorofluoromethane	ug/L	<0.12	20	20	21.7	22.3	108	112	49-150	3	30		
Vinyl chloride	ug/L	<0.046	20	20	17.4	18.1	87	91	55-150	4	30		
Xylene (Total)	ug/L	<0.20	60	60	57.1	56.5	95	94	68-136	1	30		
1,2-Dichlorobenzene-d4 (S)	%.						97	98	75-125				
4-Bromofluorobenzene (S)	%.						106	106	75-125				
Toluene-d8 (S)	%.						100	99	75-125				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

QC Batch: 849431 Analysis Method: SM 2320B

QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10629409001, 10629409002, 10629409003, 10629409004, 10629409005

METHOD BLANK: 4492581 Matrix: Water

Associated Lab Samples: 10629409001, 10629409002, 10629409003, 10629409004, 10629409005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	<2.4	5.0	10/26/22 12:59	

LABORATORY CONTROL SAMPLE & LCSD: 4492582 4492583

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	40	41.3	41.4	103	103	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4492584 4492585

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO ₃	mg/L	56.6	40	40	96.4	97.6	100	102	80-120	1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4492586 4492587

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO ₃	mg/L	43.4	40	40	83.7	83.7	101	101	80-120	0	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, LLC.

QUALIFIERS

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 847600

- [1] The continuing calibration verification was above the method acceptance limit for dichlorodifluoromethane, bromomethane, acetone, tetrahydrofuran, 4-methyl-2-pentanone (MIBK), and bromoform. Any detection for the analyte in the associated samples may have a high bias.

Batch: 847898

- [1] The continuing calibration verification was above the method acceptance limit for bromomethane and tetrahydrofuran. Any detection for the analyte in the associated samples may have a high bias.

Batch: 847958

- [1] The continuing calibration verification was above the method acceptance limit for bromomethane and tetrahydrofuran. Any detection for the analyte in the associated samples may have a high bias.

ANALYTE QUALIFIERS

- B Analyte was detected in the associated method blank.
- E Analyte concentration exceeded the calibration range. The reported result is estimated.
- ES The reported result is estimated because one or more of the constituent results are qualified as such.
- L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.
- P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
- v1 The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 49161494.02 100 102 SRC GW GEM

Pace Project No.: 10629409

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10629409001	MW-1	EPA 200.7	847135	EPA 200.7	847519
10629409002	MW-2	EPA 200.7	847135	EPA 200.7	847519
10629409003	MW-3D	EPA 200.7	847135	EPA 200.7	847519
10629409004	MW-8R	EPA 200.7	847135	EPA 200.7	847519
10629409005	MW-9B	EPA 200.7	847135	EPA 200.7	847519
10629409001	MW-1	EPA 8260D	847600		
10629409002	MW-2	EPA 8260D	847600		
10629409003	MW-3D	EPA 8260D	847600		
10629409004	MW-8R	EPA 8260D	847898		
10629409005	MW-9B	EPA 8260D	847898		
10629409006	Trip Blank	EPA 8260D	847958		
10629409001	MW-1	SM 2320B	849431		
10629409002	MW-2	SM 2320B	849431		
10629409003	MW-3D	SM 2320B	849431		
10629409004	MW-8R	SM 2320B	849431		
10629409005	MW-9B	SM 2320B	849431		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Barr Engineering Co. Chain of Custody

Sample Origination State

 CO MI MN MO ND NV TX UT WI WY Other: _____

REPORT TO		INVOICE TO	
Company: Barr Engineering Co	Company: Barr		
Address: 325 South Lake Ave	Address:		
Address: Duluth, MN 55802	Address:		
Name: Lynette Carney	Name:		
email: lcarney@barr.com	email:		
Copy to: BarrDM@barr.com	P.O.		
Project Name: SRC GW GEM	Barr Project No: 49161494.02 100 102		

Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Perform MS/MSD Total Number Of Containers	Y / N	Analysis Requested			COC Number: No 591517 COC <u>1</u> of <u>1</u>
	Start	Stop	Unit (m./ft. or in.)						Water	Soil		
1. mw-1	—	—	—	10/12/2022	1311	GW	N	5	X	XXX		
2. mw-2	—	—	—	—	1352	GW	N	5	X	XXX		
3. mw-3D	—	—	—	—	1427	GW	N	5	X	XXX		
4. mw-8R	—	—	—	—	1205	GW	N	5	X	XX		
5. mw-9B	—	—	—	—	145	GW	N	5	X	XX		
6. Trip Blank	—	—	—	—	—	WQ	N	2	X			
7.												
8.												
9.												
10.												

BARR USE ONLY		Relinquished by:	On Ice?	Date	Time	Received by:	Date	Time	
Sampled by: KLS3	Barr Proj. Manager: LMC	Lynette Schneider	Y N	10/12/2022	1542	asen 202	10/12/22	1542	
Barr DQ Manager: JET	Lab Name: Pace	Relinquished by:	On Ice? Y N	Date	Time	Received by:	Date	Time	
Lab Location: Minneapolis, MN	Samples Shipped VIA: <input type="checkbox"/> Ground Courier <input type="checkbox"/> Air Carrier <input type="checkbox"/> Sampler <input type="checkbox"/> Other: _____					Air Bill Number: _____	Requested Due Date: <input checked="" type="checkbox"/> Standard Turn Around Time <input type="checkbox"/> Rush _____ (mm/dd/yyyy)		
Lab WO: Temperature on Receipt (°C): 4.3 Custody Seal Intact? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> None									

Effective Date:

**Sample Condition
Upon Receipt**

Client Name:

Barr Engineering Co.

Project #:

WO# : 10629409

10629409

Courier: FedEx UPS USPS Client
 Pace SpeeDee Commercial

 See Exceptions

Tracking Number: _____

ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No Biological Tissue Frozen? Yes No N/APacking Material: Bubble Wrap Bubble Bags None Other Temp Blank? Yes NoThermometer: T1 (0461) T2 (1336) T3 (0459) T4 (0254) T5 (0178) Type of Ice: Wet Blue Dry None
 T6 (0235) T7 (0042) T8 (0775) 01339252/1710 MeltedDid Samples Originate in West Virginia? Yes No Were All Container Temps Taken? Yes No N/A

Temp should be above freezing to 6 °C

Cooler temp Read w/Temp Blank: 4.2 °C

Average Corrected Temp

(no temp blank only): 4.2 °CCorrection Factor: 10.1Cooler Temp Corrected w/temp blank: 4.3 °C See Exceptions ENV-FRM-MIN4-0142 1 ContainerUSDA Regulated Soil: N/A, water sample/other: _____)Date/Initials of Person Examining Contents: 10/12/22Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? Yes NoDid samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): <input checked="" type="checkbox"/> Duluth <input type="checkbox"/> Minneapolis <input type="checkbox"/> Virginia	COMMENTS
Chain of Custody Present and Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4. If fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8 hr, <24 <input type="checkbox"/> No
Short Hold Time Analysis (<72 hr)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E.coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrom <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Sample Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/Date/Time of container below: <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142
Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other	12. Sample # <input type="checkbox"/> NaOH <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> Zinc Acetate
All containers needing acid/base preservation have been checked? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Positive for Residual Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142 pH Paper Lot # Residual Chlorine 0-6 Roll 0-6 Strip 0-14 Strip
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	
Headspace in Methyl Mercury Container? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Extra labels present on soil VOA or WIDRO containers? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3 Trip Blanks Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15. Pace Trip Blank Lot # (if purchased): _____
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

CLIENT NOTIFICATION/RESOLUTIONField Data Required? Yes No

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____

Matt M

Date: 10/12/22

Project Manager Review: _____

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: _____

Line: _____
Page 42 of 45
Page 1 of 1



Document Name:
Sample Condition Upon Receipt (SCUR) Exception Form

Document Revised: 04Jun2020

Page 1 of 1

Document No.:
ENV-FRM-MIN4-0142 Rev.01

Pace Analytical Services -
Minneapolis

SCUR Exceptions:

Workorder #:

Out of Temp Sample IDs	Container Type	# of Containers	PM Notified? <input type="checkbox"/> Yes <input type="checkbox"/> No																					
			If yes, indicate who was contacted/date/time. If no, indicate reason why.																					
			Multiple Cooler Project? <input type="checkbox"/> Yes <input type="checkbox"/> No If you answered yes, fill out information to the left.																					
			<table border="1"> <thead> <tr><th colspan="3">No Temp Blank</th></tr> <tr><th>Read Temp</th><th>Corrected Temp</th><th>Average Temp</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table>	No Temp Blank			Read Temp	Corrected Temp	Average Temp															
No Temp Blank																								
Read Temp	Corrected Temp	Average Temp																						

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	

Comments:

Comments: MW-9B got collection time of 14:53 off sample bottle
only received 1 Field filtered Metals bottle

WO# : 10629409

Intra-Regional Chain of Custody



Workorder: 10629409

Workorder Name: 49161494.02 100 102 SRC GW GEM

Owner Received Date: 10/12/2022

Due Date: 10/26/2022

alytical®
pacelabs.com

Received at:		Send To Lab:		Requested Analysis														
Pace Analytical Duluth 4730 Oneota St. Duluth, MN 55807 Phone (612)607-6451		Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700																
Report To: Martha Hansen																		
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers			SM12320B	EPA 2007 dissolved	EPA 8260D	LAB USE ONLY						
						BP3N	VG9H	BP3U										
1	MW-1	PS	10/12/2022 13:11	10629409001	Water	1	3	1				X	X	X				
2	MW-2	PS	10/12/2022 13:52	10629409002	Water	1	3	1				X	X	X				
3	MW-3D	PS	10/12/2022 14:27	10629409003	Water	1	3	1				X	X	X				
4	MW-8R	PS	10/12/2022 12:05	10629409004	Water	1	3	1				X	X	X				
5	MW-9B	PS	10/12/2022 14:53	10629409005	Water	1	3	1				X	X	X				
6	Trip Blank	PS	10/12/2022 00:00	10629409006	Water	2						X						
												Comments						
Transfers	Released By	Date/Time	Received By	Date/Time														
1	<i>S. Hansen / Pace</i>	10/13/22 07:30	<i>S. Hansen</i>	10/13/22 08:00														
2	<i>S. Hansen</i>	10/13/22 11:15	<i>S. Hansen / Pace</i>	10/13/22 11:15														
3																		
4																		
Cooler Temperature on Receipt 1.9 °C				Custody Seal <input checked="" type="checkbox"/> or N	Received on Ice <input checked="" type="checkbox"/> or N	Samples Intact <input checked="" type="checkbox"/> or N												

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Effective Date:

Sample Condition Upon Receipt	Client Name: <u>Pace, Inc.</u>
----------------------------------	-----------------------------------

Project #:

WO# : 10629409

Due Date: 10/26/22

Courier: FedEx UPS USPS Client
 Pace SpeeDee Commercial

See Exceptions
ENV-FRM-MIN4-0142

PM: MKH
CLIENT: BARR

Tracking Number:

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No

Biological Tissue Frozen? Yes No N/A

Packing Material: Bubble Wrap Bubble Bags None Other

Temp Blank? Yes No

Thermometer: T1 (0461) T2 (1336) T3 (0459) T4 (0254) T5 (0178)
 T6 (0235) T7 (0042) T8 (0775) 01339252/1710

Type of Ice: Wet Blue Dry None
 Melted

Did Samples Originate in West Virginia? Yes No

Were All Container Temps Taken? Yes No N/A

Temp should be above freezing to 6 °C Cooler temp Read w/Temp Blank: 1.7 °C

Average Corrected Temp

(no temp blank only): 1.9 °C

Correction Factor: 1.01

Cooler Temp Corrected w/temp blank: 1.9 °C

See Exceptions ENV-FRM-MIN4-0142 1 Container

USDA Regulated Soil: N/A, water sample/other: _____

Date/Initials of Person Examining Contents: JM 10/13/22

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): <input type="checkbox"/> Duluth <input checked="" type="checkbox"/> Minneapolis <input type="checkbox"/> Virginia	COMMENTS		
Chain of Custody Present and Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.		
Chain of Custody Relinquished? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.		
Sampler Name and/or Signature on COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4. If fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8 hr, <24 <input type="checkbox"/> No		
Short Hold Time Analysis (<72 hr)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E.coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrom <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other		
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.		
Sufficient Sample Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.		
Correct Containers Used? -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.		
Field Filtered Volume Received for Dissolved Tests? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/Date/Time of container below: <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142		
Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other			
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12. Sample # <u>001-006</u>		
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH>9 Sulfide, NaOH>10 Cyanide)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
	Positive for Residual Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Exceptions ENV-FRM-MIN4-0142		
	Residual Chlorine	0-6 Roll	0-6 Strip
	<u>70.8411</u>		
Headspace in Methyl Mercury Container? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.		
Extra labels present on soil VOA or WIDRO containers? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (greater than 6mm)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.		
3 Trip Blanks Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
Trip Blank Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Pace Trip Blank Lot # (if purchased): <u>386611</u>		

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____

Date: 10/13/22

Project Manager Review: _____

Labeled By: _____

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Line: 1
Page 1 of 1

Attachment B

Monitoring Well Construction and Abandonment Forms

Sealing and Well Construction Records

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to DNR Bureau:

- | | | |
|---|---|---|
| <input type="checkbox"/> Drinking Water | <input type="checkbox"/> Watershed/Wastewater | <input checked="" type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other: _____ | |

 Verification Only of Fill and Seal**1. Well Location Information**

County Douglas	WI Unique Well # of Removed Well _____	Hicap # _____	
Latitude / Longitude (see instructions) 46.69087 N -92.075992 W		Format Code <input checked="" type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input checked="" type="checkbox"/> OTH001
1/4 / 1/4 NW or Gov't Lot #	1/4 NW	Section 36	Township 49 N
Range 14	E <input type="checkbox"/>		W <input checked="" type="checkbox"/>

Well Street Address
2407 Stinson Ave

Well City, Village or Town
Superior

Subdivision Name

Reason for Removal from Service
damaged

3. Filled & Sealed Well / Drillhole / Borehole Information

<input checked="" type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Borehole / Drillhole	Original Construction Date (mm/dd/yyyy) 11/2/2004
If a Well Construction Report is available, please attach.	

Construction Type:

Drilled Driven (Sandpoint) Dug
 Other (specify): _____

Formation Type:

Unconsolidated Formation Bedrock

Total Well Depth From Ground Surface (ft.) Casing Diameter (in.)
2"

Lower Drillhole Diameter (in.) Casing Depth (ft.)

Was well annular space grouted? Yes No Unknown

If yes, to what depth (feet)? Depth to Water (feet)

5. Material Used to Fill Well / Drillhole

topsoil
sand
bentonite chips 3/8"

6. Comments

9/1/2022 - bentonite chips added to well, PVC riser cut down to 6 inches bgs, hole was backfilled with sand and topsoil

7. Supervision of Work

DNR Use Only				
Name of Person or Firm Doing Filling & Sealing Kinzey Schneider	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 09/01/2022	Date Received	Noted By
Street or Route 325 South Lake Avenue	Telephone Number (218) 529-8200	Comments		
City Duluth	State MN	ZIP Code 55802	Signature of Person Doing Work <i>Kinzey Schneider</i>	Date Signed 12/1/2022

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to DNR Bureau:

- | | | |
|---|---|---|
| <input type="checkbox"/> Drinking Water | <input type="checkbox"/> Watershed/Wastewater | <input checked="" type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other: _____ | |

 Verification Only of Fill and Seal**1. Well Location Information**

County Douglas	WI Unique Well # of Removed Well _____	Hicap # _____	
Latitude / Longitude (see instructions) 46.690489 -92.072791		Format Code <input checked="" type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input checked="" type="checkbox"/> OTH001
1/4 / 1/4 NW or Gov't Lot #	1/4 NW or Gov't Lot #	Section 36	Township 49 N
Range 14	E <input type="checkbox"/> W		

Well Street Address
4207 Stinson AveWell City, Village or Town
Superior

Subdivision Name

Reason for Removal from Service
damaged**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input checked="" type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Borehole / Drillhole	Original Construction Date (mm/dd/yyyy) 03/09/1994
If a Well Construction Report is available, please attach.	

Construction Type:

- | | | |
|---|---|------------------------------|
| <input checked="" type="checkbox"/> Drilled | <input type="checkbox"/> Driven (Sandpoint) | <input type="checkbox"/> Dug |
| <input type="checkbox"/> Other (specify): _____ | | |

Formation Type:

- | | |
|--|----------------------------------|
| <input checked="" type="checkbox"/> Unconsolidated Formation | <input type="checkbox"/> Bedrock |
|--|----------------------------------|

Total Well Depth From Ground Surface (ft.)
2"

Lower Drillhole Diameter (in.)

Was well annular space grouted? Yes No Unknown

If yes, to what depth (feet)?

Depth to Water (feet)

5. Material Used to Fill Well / Drillhole

sand bentonite chips 3/8"

6. Comments

9/01/2022 - bentonite chips added to well, 10/7/2022 - protective well casing removed and PCV riser cut down 6 inches bgs. Hole backfilled with sand.

7. Supervision of Work

DNR Use Only			
Name of Person or Firm Doing Filling & Sealing Kinzey Schneider	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 09/01/2022	Date Received Noted By
Street or Route 325 South Lake Avenue	Telephone Number (218) 529-8200	Comments	
City Duluth	State MN	ZIP Code 55802	Signature of Person Doing Work <i>Kinzey Schneider</i>
			Date Signed 12/1/2022

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to DNR Bureau:

- | | | |
|---|---|---|
| <input type="checkbox"/> Drinking Water | <input type="checkbox"/> Watershed/Wastewater | <input checked="" type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other: _____ | |

☒ Verification Only of Fill and Seal**1. Well Location Information**

County Douglas	WI Unique Well # of Removed Well _____	Hicap # _____			
Latitude / Longitude (see instructions) 46.685056 N -92.06991 W		Format Code <input checked="" type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input checked="" type="checkbox"/> OTH001		
1/4 / 1/4 SE or Gov't Lot #	1/4 NW	Section 36	Township 49 N	Range 14	E <input type="checkbox"/> W <input checked="" type="checkbox"/>

Well Street Address
2407 Stinson Ave

Well City, Village or Town
Superior

Subdivision Name

Lot #

Reason for Removal from Service
Infrastructure expansion

WI Unique Well # of Replacement Well

3. Filled & Sealed Well / Drillhole / Borehole Information

<input checked="" type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Borehole / Drillhole	Original Construction Date (mm/dd/yyyy) 10/14/2014
If a Well Construction Report is available, please attach.	

Construction Type:

- Drilled Driven (Sandpoint) Dug
 Other (specify): _____

Formation Type:

- Unconsolidated Formation Bedrock

Total Well Depth From Ground Surface (ft.) Casing Diameter (in.)
2"

Lower Drillhole Diameter (in.) Casing Depth (ft.)
20.4

Was well annular space grouted? Yes No Unknown

If yes, to what depth (feet)? Depth to Water (feet)

5. Material Used to Fill Well / Drillhole

sand
bentonite chips 3/8"

6. Comments

9/01/2022 - bentonite chips added to well, 10/7/2022- protective well casing removed and PCV riser cut down 6 inches bgs. Hole backfilled with sand.

7. Supervision of Work

DNR Use Only			
Name of Person or Firm Doing Filling & Sealing Kinzey Schneider	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 09/01/2022	Date Received
Street or Route 325 South Lake Avenue	Telephone Number (218) 529-8200	Comments	
City Duluth	State MN	ZIP Code 55802	Signature of Person Doing Work <i>Kinzey Schneider</i>
			Date Signed 12/1/2022

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Page 1 of 2

Facility/Project Name SRC Facility-Wide GW Monitoring			License/Permit/Monitoring Number 16-16-559511		Boring Number MW-7R															
Boring Drilled By: Name of crew chief (first, last) and Firm Adam Reimer Twin Ports Testing			Date Drilling Started 10/27/2022	Date Drilling Completed 10/27/2022	Drilling Method hollow stem auger															
WI Unique Well No. 816009590	DNR Well ID No. MW-7R	Common Well Name MW-7R	Final Static Water Level	Surface Elevation 700.2 Feet	Borehole Diameter 8.3 inches															
Local Grid Origin <input type="checkbox"/> (estimated: <input checked="" type="checkbox" value="X"/>) or Boring Location <input checked="" type="checkbox"/>			Local Grid Location																	
State Plane 5,171,185 N, 570,896 E S/C/N NE 1/4 of NW 1/4 of Section 36, T 49 N, R 14 W			Lat 46° 41' 25.7"	<input type="checkbox"/> N Feet <input type="checkbox"/> S Feet		<input type="checkbox"/> E Feet <input type="checkbox"/> W														
Facility ID 816009590		County Douglas	County Code 16	Civil Town/City/ or Village Superior																
Number and Type and Att. & Recovered (in)	Sample	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit		Soil Properties				RQD/ Comments										
				U S C S	Graphic Log	Well Diagram	PID (ppm)	Compressive Strength	Moisture Content		G/S/F %	Color	Plasticity Index							
60 24	60 60	60 60	60 60	60 60	60 60	60 60	60 60	60 60	60 60	60 60	Sandy clay with gravel, red brown, moist, sand and gravel, low plasticity	C _L		0.2						
											Fat clay, red brown, moist to wet, firm, high plasticity			0.3						
														0.3						
														0.5						
														0.3						
														0.2						

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm Barr Engineering Co	Tel: Fax:
---------------	--------------------------	--------------

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number MW-7R

Use only as an attachment to Form 4400-122.

Page 2 of 2

Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	Soil Properties				RQD/Comments
								PID (ppm)	Compressive Strength	Moisture Content	G/S/F %	
			14	Fat clay, red brown, moist to wet, firm, high plasticity <i>(continued)</i>	CH			0.1				
				EOB - 15 ft bgs Well Set - 14.2 ft bgs				0.2				

Route To:

Watershed/Wastewater
Remediation/Redevelopment

Waste Management
Other

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name SRC Facility-Wide GW Monitoring		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name MW-7R
Facility License, Permit or Monitoring No. 16-16-559511		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input checked="" type="checkbox"/> Lat. 46° 41' 25.7" Long. -94° 4' 22.1" or St. Plane 5,171,185 ft. N, 570,896 ft. E. S/C/N	Wis. Unique Well No. <input type="checkbox"/> DNR Well Number
Facility ID 816009590		Section Location of Waste/Source NE 1/4 of NW 1/4 of Sec. 36 , T. 49 N, R. 14 <input type="checkbox"/> E	Date Well Installed 10/27/2022
Type of Well Well Code 11/mw		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input checked="" type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) Adam Reimer
Distance from Waste/ Source ft.	Enf. Stds. Apply <input type="checkbox"/>	Gov. Lot Number	Twin Ports Testing
A. Protective pipe, top elevation 703.16 ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
B. Well casing, top elevation 702.76 ft. MSL		2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 5.4 ft. c. Material: Steel <input checked="" type="checkbox"/> 0 4 Other <input type="checkbox"/>	
C. Land surface elevation 700.2 ft. MSL		d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: Native clay	
D. Surface seal, bottom 699.7 ft. MSL or 0.5 ft.		3. Surface seal: Bentonite <input type="checkbox"/> 3 0 Concrete <input type="checkbox"/> 0 1 Other <input checked="" type="checkbox"/>	
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input checked="" type="checkbox"/> Bedrock <input type="checkbox"/>		4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3 0 Other <input type="checkbox"/>	
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3 3 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 5 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 1 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 5 0 e. _____ Ft ³ volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 0 1 Tremie pumped <input type="checkbox"/> 0 2 Gravity <input type="checkbox"/> 0 8	
14. Drilling method used: Rotary <input type="checkbox"/> 5 0 Hollow Stem Auger <input checked="" type="checkbox"/> 4 1 Other <input type="checkbox"/>		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2 c. _____ Other <input type="checkbox"/>	
15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1 Drilling Mud <input type="checkbox"/> 0 3 None <input checked="" type="checkbox"/> 9 9		7. Fine sand material: Manufacturer, product name & mesh size a. #10 Fine Sand	
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____		b. Volume added 6 ft ³	
17. Source of water (attach analysis, if required): _____		8. Filter pack material: Manufacturer, product name & mesh size a. Red Flint #30	
E. Bentonite seal, top 700.2 ft. MSL or 0.0 ft.		b. Volume added 3.75 ft ³	
F. Fine sand, top 697.4 ft. MSL or 2.8 ft.		9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4 Other <input type="checkbox"/>	
G. Filter pack, top 696.8 ft. MSL or 3.4 ft.		10. Screen material: PVC a. Screen Type: Factory cut <input type="checkbox"/> 1 1 Continuous slot <input checked="" type="checkbox"/> 0 1 Other <input type="checkbox"/>	
H. Screen joint, top 696.0 ft. MSL or 4.2 ft.		b. Manufacturer _____ c. Slot size: _____ in. d. Slotted length: 10.0 ft.	
I. Well bottom 686.0 ft. MSL or 14.2 ft.		11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4 Other <input type="checkbox"/>	
J. Filter pack, bottom 685.2 ft. MSL or 15.0 ft.			
K. Borehole, bottom 685.2 ft. MSL or 15.0 ft.			
L. Borehole, diameter 8.3 in.			
M. O.D. well casing 14.20 in.			
N. I.D. well casing 2.00 in.			

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Jes Pedersen

Firm

Barr Engineering Co

Tel:
Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Page 1 of 2

Facility/Project Name SRC Facility-Wide GW Monitoring			License/Permit/Monitoring Number 16-16-559511		Boring Number MW-19R						
Boring Drilled By: Name of crew chief (first, last) and Firm Adam Reimer Twin Ports Testing			Date Drilling Started 10/28/2022	Date Drilling Completed 10/28/2022	Drilling Method hollow stem auger						
WI Unique Well No. 816009590	DNR Well ID No. MW-19R	Common Well Name MW-19R	Final Static Water Level	Surface Elevation 658.9 Feet	Borehole Diameter 8.3 inches						
Local Grid Origin <input type="checkbox"/> (estimated: <input checked="checked" type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>			Local Grid Location								
State Plane 5,170,562 N, 571,096 E S/C/N SE 1/4 of NW 1/4 of Section 36, T 49 N, R 14 W			Lat 46° 41' 5.4"	<input type="checkbox"/> N Feet <input type="checkbox"/> S Feet							
Facility ID 816009590			County Code 16	Civil Town/City/ or Village Superior							
Number and Type and Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit		Soil Properties				RQD/ Comments		
			U S C S	Graphic Log	Well Diagram	PID (ppm)	Compressive Strength	Moisture Content		G/S/F %	Color
60 48	-	-	CH		0.4	0.4	0.3	0.1	0.2	0.2	
60 60	-2	-									
60 60	-4	-									
60 60	-6	-									
60 60	-8	-									
60 60	-10	-									
60 60	-12	-									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm Barr Engineering Co	Tel: Fax:
---------------	------------------------------------	--------------

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number MW-19R

Use only as an attachment to Form 4400-122.

Page 2 of 2

Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	Soil Properties				RQD/Comments
								PID (ppm)	Compressive Strength	Moisture Content	G/S/F %	
			14	Fat clay, moist to wet, red brown, hard, firm from 10 to 15, high plasticity (<i>continued</i>) EOB - 15 ft bgs Well Set - 14.2 ft bgs	CH			0.3 0.3				

Facility/Project Name SRC Facility-Wide GW Monitoring		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name MW-19R
Facility License, Permit or Monitoring No. 16-16-559511		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input checked="" type="checkbox"/> Lat. 46° 41' 5.4" Long. -94° 4' 13.1" or St. Plane 5,170,562 ft. N, 571,096 ft. E. S/C/N	Wis. Unique Well No. <input type="checkbox"/> DNR Well Number
Facility ID 816009590		Section Location of Waste/Source SE 1/4 of NW 1/4 of Sec. 36 , T. 49 N, R. 14 <input type="checkbox"/> E	Date Well Installed 10/28/2022
Type of Well Well Code 11/mw		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input checked="" type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) Adam Reimer
Distance from Waste/ Source ft.	Enf. Stds. Apply <input type="checkbox"/>	Gov. Lot Number	Twin Ports Testing
A. Protective pipe, top elevation 661.75 ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
B. Well casing, top elevation 661.35 ft. MSL		2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 5.3 ft. c. Material: Steel <input checked="" type="checkbox"/> 0 4 Other <input type="checkbox"/>	
C. Land surface elevation 658.9 ft. MSL		d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____	
D. Surface seal, bottom 658.4 ft. MSL or 0.5 ft.		3. Surface seal: Bentonite <input type="checkbox"/> 3 0 Concrete <input type="checkbox"/> 0 1 Other <input checked="" type="checkbox"/> native clay	
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input checked="" type="checkbox"/> Bedrock <input type="checkbox"/>		4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3 0 Other <input type="checkbox"/>	
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3 3 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 5 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 1 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 5 0 e. _____ Ft ³ volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 0 1 Tremie pumped <input type="checkbox"/> 0 2 Gravity <input type="checkbox"/> 0 8	
14. Drilling method used: Rotary <input type="checkbox"/> 5 0 Hollow Stem Auger <input checked="" type="checkbox"/> 4 1 Other <input type="checkbox"/>		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2 c. _____ Other <input type="checkbox"/>	
15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1 Drilling Mud <input type="checkbox"/> 0 3 None <input checked="" type="checkbox"/> 9 9		7. Fine sand material: Manufacturer, product name & mesh size a. #10 Fine Sand	
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____		b. Volume added 6 ft ³	
17. Source of water (attach analysis, if required): _____		8. Filter pack material: Manufacturer, product name & mesh size a. Red Flint #30	
E. Bentonite seal, top 658.9 ft. MSL or 0.0 ft.	F. Fine sand, top 656.0 ft. MSL or 2.9 ft.	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4 Other <input type="checkbox"/>	
G. Filter pack, top 655.4 ft. MSL or 3.5 ft.	H. Screen joint, top 654.7 ft. MSL or 4.2 ft.	10. Screen material: PVC a. Screen Type: Factory cut <input type="checkbox"/> 1 1 Continuous slot <input checked="" type="checkbox"/> 0 1 Other <input type="checkbox"/>	
I. Well bottom 644.7 ft. MSL or 14.2 ft.	J. Filter pack, bottom 643.9 ft. MSL or 15.0 ft.	b. Manufacturer _____ c. Slot size: _____ in. d. Slotted length: 10.0 ft.	
K. Borehole, bottom 643.9 ft. MSL or 15.0 ft.	L. Borehole, diameter 8.3 in.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4 Other <input type="checkbox"/>	
M. O.D. well casing 14.20 in.	N. I.D. well casing 2.00 in.		

The diagram illustrates a vertical cross-section of a monitoring well. It shows a central borehole with a protective pipe (well casing) extending from the surface down to the bottom. The well casing is surrounded by a backfill material. Below the well casing, there is a filter pack and a screen joint. The bottom of the well is sealed with a bentonite seal. Various points are labeled with letters corresponding to the questions in the form:

- A: Protective pipe, top elevation (661.75 ft. MSL)
- B: Well casing, top elevation (661.35 ft. MSL)
- C: Land surface elevation (658.9 ft. MSL)
- D: Surface seal, bottom (658.4 ft. MSL or 0.5 ft.)
- E: Bentonite seal, top (658.9 ft. MSL or 0.0 ft.)
- F: Fine sand, top (656.0 ft. MSL or 2.9 ft.)
- G: Filter pack, top (655.4 ft. MSL or 3.5 ft.)
- H: Screen joint, top (654.7 ft. MSL or 4.2 ft.)
- I: Well bottom (644.7 ft. MSL or 14.2 ft.)
- J: Filter pack, bottom (643.9 ft. MSL or 15.0 ft.)
- K: Borehole, bottom (643.9 ft. MSL or 15.0 ft.)
- L: Borehole, diameter (8.3 in.)
- M: O.D. well casing (14.20 in.)
- N: I.D. well casing (2.00 in.)

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm Barr Engineering Co Tel: _____

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.