

February 26, 2021

Mr. John Sager  
Wisconsin Department of Natural Resources  
1701 North 4<sup>th</sup>, Street  
Superior, WI 54880

**Re: Facility-Wide Groundwater Monitoring Report for 2020  
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 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 2020.

## 1.0 Facility and Site Background Information

Figure 1 shows the location and approximate boundary of the facility-wide 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 23 monitoring wells (MW-1, MW-1/T67, MW-2, MW-2/T66, MW-3/T50, MW-3D, MW-5/T40, MW-5/T70, MW-7, MW-8R, MW-9B, and MW-11 through MW-22) and 8 piezometers (PZ-2/T66, PZ-3D, PZ-8R, PZ-11, PZ-13, PZ-16, PZ-17, and PZ-21) in the network. Table 1 is a summary of monitoring wells and piezometers in the network.

The 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 below the refinery 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  $1 \times 10^{-7}$  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 will remain unchanged and the Negotiated Agreement remains in effect.

In conjunction with the SI/RAP, a network of 23 wells and 8 piezometers for monitoring overall groundwater quality was established. Starting in 2015, all wells and piezometers in the network are gauged twice per year (to check for free product, track seasonal changes in water levels, and prepare groundwater contour maps); 18 of the monitoring wells and the 8 piezometers are purged and sampled. As summarized in Table 1, the sampled wells (18) and piezometers (8) are referred to as "perimeter" wells and the 5 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, discussed further below.

As part of the 2018 Negotiated Agreement (WDNR/SRC, 2018), a single new refinery-wide Environmental Repair Program (ERP) site was created at the refinery, and this site is referred to as a facility-wide ERP. Table 1 provides a summary of ERP well locations, designations, and monitoring parameters for reference. Note that:

- MW-1, MW-2, MW-3D, MW-8R, and MW-9B are a subset of the ERP perimeter wells that are classified as "pond" wells. Once a year, samples from these wells are analyzed for volatile organic compounds (VOCs) using EPA Method 8260B and select inorganics using EPA Method 6010 and Standard Method 2320B, in conjunction with the post-closure monitoring of wastewater treatment Ponds 1 and 6. As stipulated by the WDNR (GEMS) program, MW-8R serves as an upgradient monitoring well, located approximately 2,500 feet southwest of the ponds (Figure 2).
- MW-1/T67, MW-2/T66, MW-3/T50, MW-5/T40, and MW-5/T70 are gauged along with the ERP perimeter wells; however, they are not routinely purged and sampled as part of the ERP monitoring program. Consequently, these wells are not classified as perimeter wells and are designated as "other" wells in Table 1.
- The perimeter wells/piezometers are purged using a modified purge method, as approved by the WDNR in 2015. All the perimeter wells/piezometers are purged twice prior to sampling. At each perimeter well, field staff either bail the well dry or stop purging at a volume of 4 gallons per visit, or up to 8 gallons total after the second time. At each perimeter piezometer, field staff either bail the piezometer dry or stop purging at a volume of 6.5 gallons per visit, or up to 13 gallons total after the second time. This modified method replaces the practice of simply bailing all wells and piezometers dry each time, as described in the April 2014 SI/RAP (GF, 2014), and increases the

probability that the wells and piezometers will reach static conditions between gauging and purging events.

- Field work is conducted by Barr and/or Insight Environmental (Insight). Insight typically conducts the routine gauging and purging activities. Barr joins Insight twice a year for the groundwater sampling events.
- In April 2018, there was an explosion and fire at the refinery (Incident). During Incident response activities, 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. As a precautionary measure, SRC plans to abandon the well and install MW-7R as a replacement. Originally planned for 2019 or 2020, the well abandonment/installation work was delayed due to a temporary refocusing of efforts on the refinery rebuild activities and implementation of a new policy on ground disturbance at the refinery.

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 2020.

## 2.0 Monitoring Activities in 2020

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 the most recent progress report was submitted to the WDNR on November 18, 2019 (GF, 2019), work at the ERP site has included the gauging of water and product levels at the network of wells and piezometers, and the collection of groundwater samples from the perimeter wells/piezometers (Table 1). Since gauging began in 2016, no measurable free product has been observed in the wells and piezometers in the network. Monitoring and sampling activities conducted in 2020 are summarized in Table 2.

### Groundwater Gauging

During 2020, the network of monitoring wells and piezometers were gauged on April 27-28, May 11-12, September 8-10, September 21-24, and October 5-6. Insight purged the perimeter wells/piezometers prior to sample collection which was conducted on May 27 and October 5, 2020. Measurement of fluid levels was inadvertently omitted during the May 2020 groundwater sampling event. Table 2 includes fluid level monitoring data for April through October 2020. No measurable free product was observed in the monitoring wells or piezometers.

The depth to groundwater in the monitoring wells ranged from 0.4 to 6.2 feet bgs. All of the calculated vertical gradients were negative/downward and ranged from 0.11 to 0.54. All water level elevation data are presented in Table 2; negative vertical gradients are shown in parenthesis in red.

The direction of shallow groundwater flow below the refinery 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.

## Groundwater Sampling and Results

Groundwater samples were collected by Barr and Insight field staff at the site during May and October 2020. The perimeter wells/piezometers were purged using the modified purge method described above. Routine sampling of the perimeter wells/piezometers was conducted on May 27, 2020 and October 5, 2020 (Table 1 and Table 3). Field staff used a new one-time-use polyethylene disposable bailer with new nylon rope to collect each groundwater sample. The May 2020 groundwater samples were sent to Pace Analytical (Pace) in Green Bay, Wisconsin (Wisconsin laboratory certification #405132750) and the October 2020 samples were sent to Pace in Minneapolis, Minnesota (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 2020 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; complete VOC and inorganic compound results for the five GEMS (pond) wells are submitted to the WDNR GEMS program staff in a separate report. As shown in Table 3: PVOCs and naphthalene were not detected in the groundwater samples collected in May and October 2020, and the detection limits for PVOCs and naphthalene were all below their respective PALs, as shown in Table 3. PVOCs and naphthalene were not detected in the groundwater samples collected in 2015-2019, except for the toluene concentration in the October 2018 sample collected from MW-7 which was 1.9 micrograms per liter (ug/l), less than the PAL of 160 ug/l.

Attachment A provides copies of the laboratory reports and chain of custody records for the groundwater samples collected in 2020.

## 3.0 Future Work

SRC's work plan for 2021 is as follows:

- Properly abandon MW-7 and install MW-7R to replace the bent well. The March 1994 boring log for MW-7, a copy of which is included in Appendix A to the April 2014 SI/RAP (GF, 2014) on file with the WDNR, documents that subsurface conditions consist of unimpacted, native red-brown lean clay till. In addition, no known releases of petroleum hydrocarbons have occurred in the immediate area. Following completion, MW-7R will be developed prior to gauging and sampling, its top of casing elevation and location will be surveyed, and paperwork on state-approved forms for the abandonment of MW-7 and drilling, installation, and development of MW-7R will be submitted to the WDNR.
- Continue to gauge fluid levels in all 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 use a modified purge method, as described in the Facility and Site Background Information section (the third bulleted item) above.

- Continue to submit groundwater samples for laboratory analysis for:
  - 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 January 2022.

Contact Matt Turner at SRC or me if you have any questions or need additional information.

Sincerely,

BARR ENGINEERING CO.



Lynette M Carney  
Project Manager

cc: Matt Turner (SRC)

### Tables

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

### Figures

Figure 1	Site Location Map
Figure 2	Groundwater Contour Map, April 2020

### Attachments

Attachment A Pace Analytical Laboratory Reports

### References

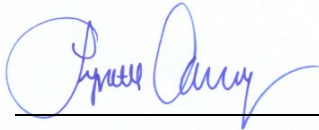
Gannett Fleming, Inc. (GF), 2014. *Final Memorandum of Agreement, Site Investigation and Remedial Action Plan, Calumet Superior LLC Refinery, Superior, WI, WDNR BRRTS# 02-16-559511*. April 30, 2014.

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."



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Lynette M. Carney, PG  
Reg #: 1138

2/26/2021

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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 <sup>1</sup>		X <sup>2</sup>	X		
MW-3D	PZ-3D	NE corner of refinery	X	X		X	X	X
MW-3/T50		Tank 50 basin			X	X		
MW-5/T40		Tank 40 basin			X	X		
MW-5/T70		Tank 70 basin			X	X		
MW-7		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-19		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

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

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



Superior Refining Company LLC

Superior, Wisconsin

Table 2

Water Elevation Data for ERP Wells and Piezometers (2016-2020)

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	4.63	4.25	nm	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
	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	655.99	656.12	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
	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)	--

Superior Refining Company LLC  
 Superior, Wisconsin  
 Table 2  
 Water Elevation Data for ERP Wells and Piezometers (2016-2020)

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
05/27/20	nm	nm	nm	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	nm	nm	nm
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
	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
05/27/20	nm	nm	nm	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	nm	nm	nm
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
	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)	--

**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.

Superior Refining Company LLC  
Superior, Wisconsin

Table 3  
PVOC/Naphthalene Data for ERP Piezometers and Perimeter Wells

Well ID	Substance Concentration (µg/l) and Results Qualifier (if any)							
	Date	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
<b>MW-1 (ERP and GEMS)</b>								
	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
<b>MW-2 (ERP and GEMS)</b>								
	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
<b>PZ-2/T66</b>								
	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
<b>MW-3D (ERP and GEMS) <sup>(1)</sup></b>								
	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
<b>PZ-3D</b>								
	6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5

Superior Refining Company LLC  
Superior, Wisconsin

Table 3  
PVOC/Naphthalene Data for ERP Piezometers and Perimeter Wells

Well ID	Substance Concentration (µg/l) and Results Qualifier (if any)							
	Date	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
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	
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								
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	
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	
MW-9B (ERP and GEMS) <sup>(2)</sup>								
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	

Superior Refining Company LLC  
Superior, Wisconsin

Table 3  
PVOC/Napthalene Data for ERP Piezometers and Perimeter Wells

Well ID	Substance Concentration (µg/l) and Results Qualifier (if any)							
	Date	Benzene	Ethylbenzene	MTBE	Napthalene	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
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	
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	
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	
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	
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	

Superior Refining Company LLC  
Superior, Wisconsin

Table 3  
PVOC/Naphthalene Data for ERP Piezometers and Perimeter Wells

Well ID	Substance Concentration (µg/l) and Results Qualifier (if any)							
	Date	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
	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
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
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
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
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

Superior Refining Company LLC  
Superior, Wisconsin

Table 3

PVOC/Naphthalene Data for ERP Piezometers and Perimeter Wells

Well ID	Substance Concentration (µg/l) and Results Qualifier (if any)							
	Date	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
	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
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
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
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
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

Superior Refining Company LLC  
Superior, Wisconsin

Table 3

PVOC/Naphthalene Data for ERP Piezometers and Perimeter Wells

Well ID	Substance Concentration (µg/l) and Results Qualifier (if any)							
	Date	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
<b>MW-19</b>								
	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
<b>MW-20</b>								
	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
<b>MW-21</b>								
	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
<b>PZ-21</b>								
	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
<b>MW-22</b>								
	6/23/2015	< 0.50	< 0.50	< 0.17	< 2.5	< 0.50	< 1.00	< 1.5



Superior Refining Company LLC  
Superior, Wisconsin

Table 3

PVOC/Naphthalene Data for ERP Piezometers and Perimeter Wells

Well ID Date	Substance Concentration (µg/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
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

**NOTES:**

Concentrations are in micrograms per liter (µg/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.

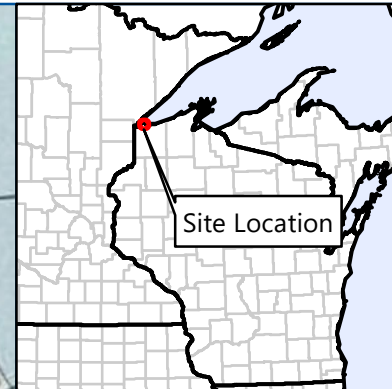
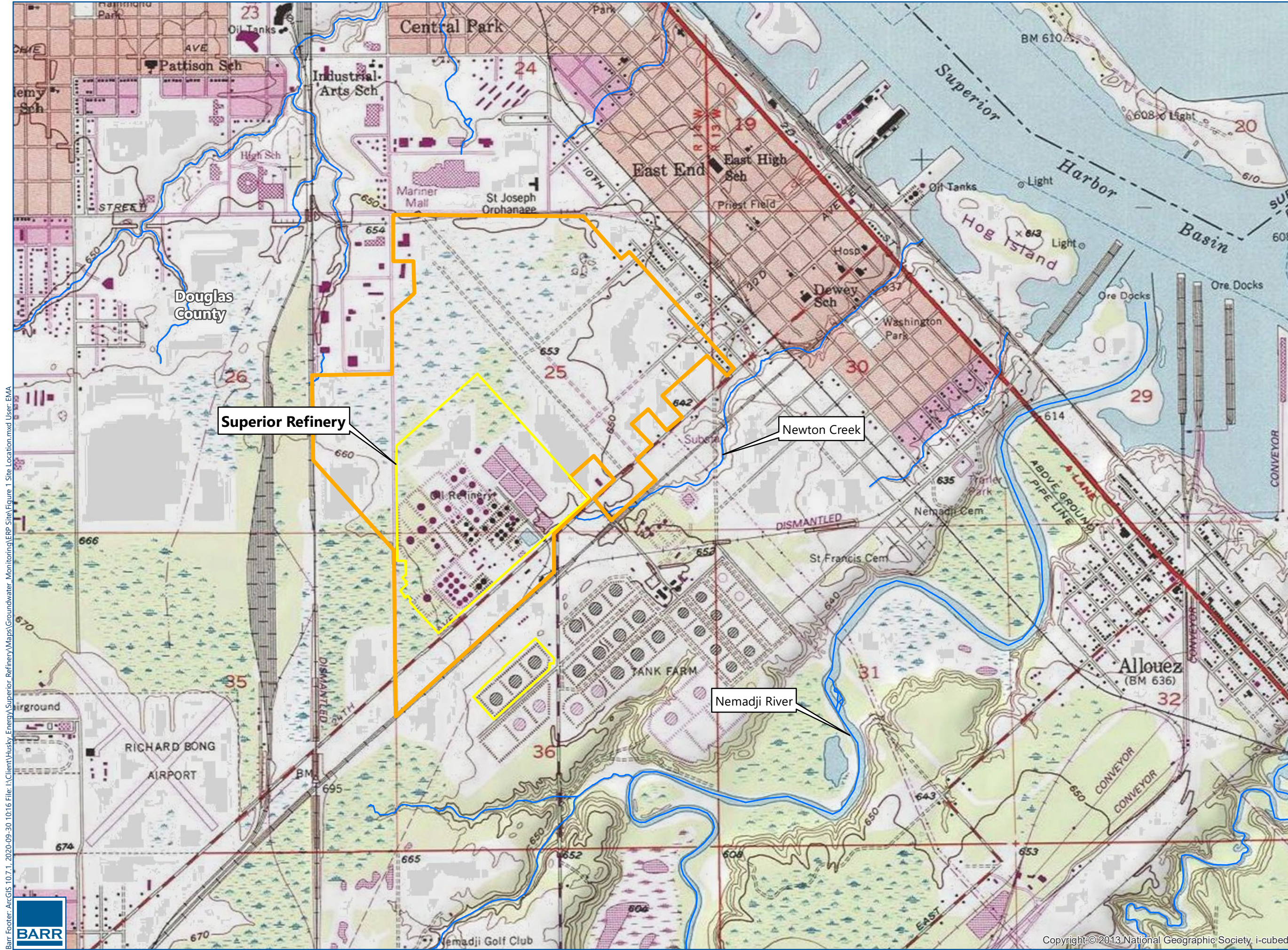
MTBE = Methyl tert butyl ether.

PVOC = Petroleum Volatile Organic Compound

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

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

## Figures

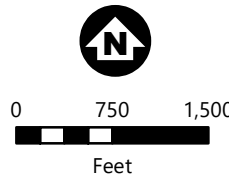


- Approximate SRC Property Boundaries for Contiguous Operations
- Approximate Fenceline Boundaries for Refining-Related Activities

Superior Refinery

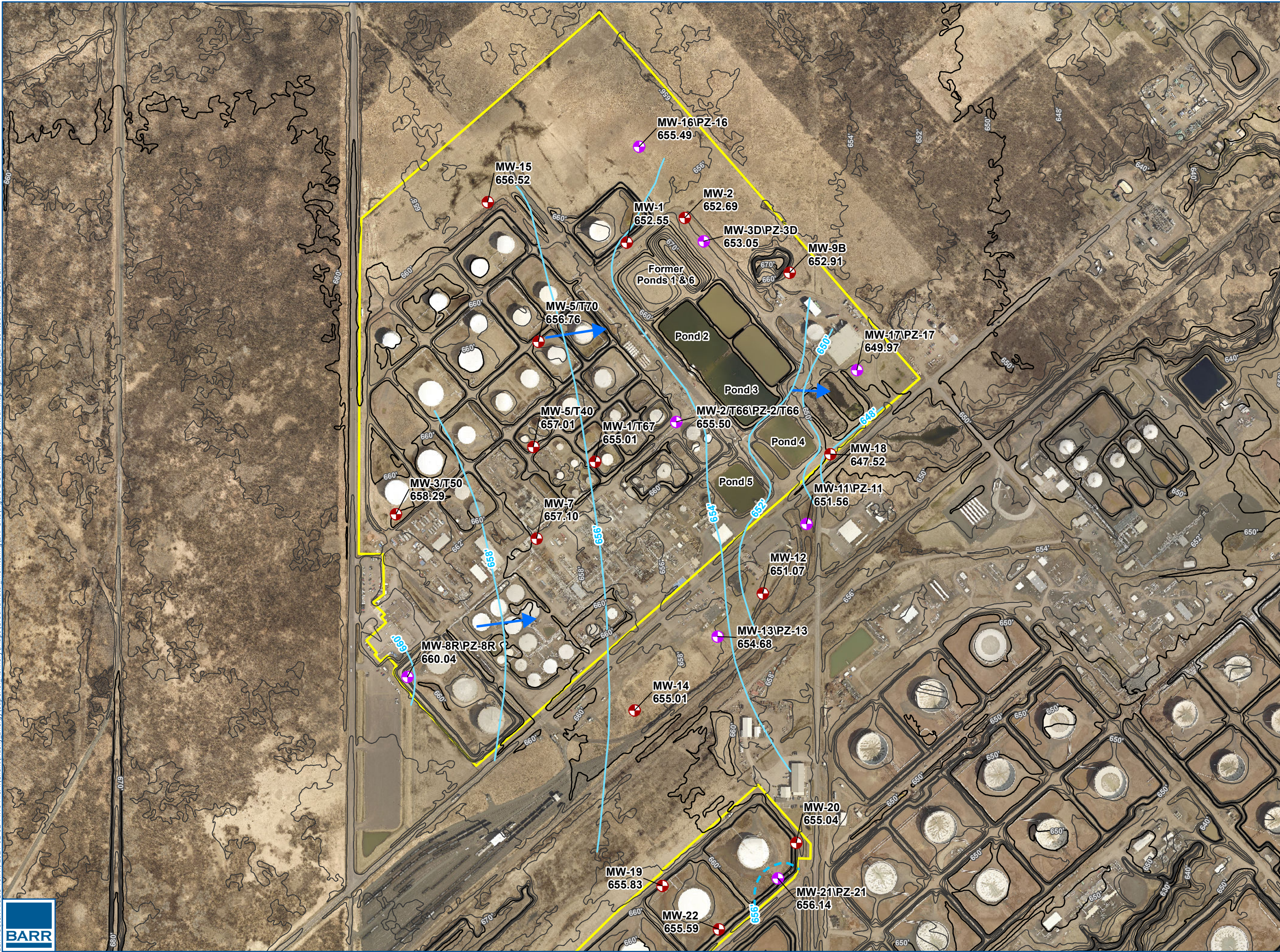
Newton Creek

Nemadji River


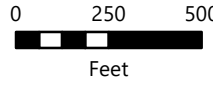


**SITE LOCATION**  
 Superior Refining  
 Company LLC (SRC)  
 Superior, WI  
**FIGURE 1**





- Approximate Fenceline Boundaries for Refining-Related Activities
- Groundwater Contour (dashed where inferred)
- Existing Monitoring Well
- Existing Monitoring Well & Piezometer Pair (groundwater elevation shown is for monitoring well)
- Groundwater Flow Direction
- Topographic Contours
  - 10-Foot Contours
  - 2-Foot Contours
- (655.49) Groundwater Elevation (ft MSL)
- Depths to groundwater measured April 28, 2020
- Well/Piezometer locations based on information from Gannett Fleming, 2019.
- Topographic Contours Source: Douglas County, 2016

0 250 500  
Feet

**GROUNDWATER CONTOUR MAP, APRIL 2020**  
 Superior Refining Company LLC (SRC)  
 Superior, WI

**FIGURE 2**



## **Attachments**

**Attachment A**

**Pace Analytical Laboratory Reports**

June 12, 2020

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

RE: Project: 49161494.00 200 202 SRC GW ERP  
Pace Project No.: 10519568

Dear Jim Taraldsen:

Enclosed are the analytical results for sample(s) received by the laboratory on May 28, 2020. 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 - Green Bay

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

Sincerely,



Amanda Albrecht  
amanda.albrecht@pacelabs.com  
(612)607-6382  
Project Manager

Enclosures

cc: BarrDM, Barr Engineering Company  
Data Management, Barr Engineering  
Accounts Payable, Barr Engineering



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## SAMPLE SUMMARY

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10519568001	MW-14	Water	05/27/20 09:00	05/28/20 18:45
10519568002	MW-13	Water	05/27/20 09:10	05/28/20 18:45
10519568003	PZ-13	Water	05/27/20 09:12	05/28/20 18:45
10519568004	MW-12	Water	05/27/20 09:17	05/28/20 18:45
10519568005	PZ-11	Water	05/27/20 09:25	05/28/20 18:45
10519568006	MW-11	Water	05/27/20 09:27	05/28/20 18:45
10519568007	MW-20	Water	05/27/20 09:35	05/28/20 18:45
10519568008	MW-19	Water	05/27/20 09:42	05/28/20 18:45
10519568009	MW-22	Water	05/27/20 09:47	05/28/20 18:45
10519568010	PZ-21	Water	05/27/20 09:50	05/28/20 18:45
10519568011	MW-21	Water	05/27/20 09:52	05/28/20 18:45
10519568012	PZ-8R	Water	05/27/20 10:30	05/28/20 18:45
10519568013	MW-8R	Water	05/27/20 10:33	05/28/20 18:45
10519568014	MW-15	Water	05/27/20 10:47	05/28/20 18:45
10519568015	MW-1	Water	05/27/20 10:55	05/28/20 18:45
10519568016	MW-16	Water	05/27/20 11:03	05/28/20 18:45
10519568017	PZ-16	Water	05/27/20 11:07	05/28/20 18:45
10519568018	MW-2	Water	05/27/20 11:10	05/28/20 18:45
10519568019	MW-3D	Water	05/27/20 11:13	05/28/20 18:45
10519568020	PZ-3D	Water	05/27/20 11:17	05/28/20 18:45
10519568021	MW-9B	Water	05/27/20 11:27	05/28/20 18:45
10519568022	MW-17	Water	05/27/20 11:36	05/28/20 18:45
10519568023	PZ-17	Water	05/27/20 11:39	05/28/20 18:45
10519568024	MW-18	Water	05/27/20 11:47	05/28/20 18:45
10519568025	PZ-2/T66	Water	05/27/20 11:55	05/28/20 18:45
10519568026	Trip Blank	Water	05/27/20 00:00	05/28/20 18:45

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### SAMPLE ANALYTE COUNT

Project: 49161494.00 200 202 SRC GW ERP  
Pace Project No.: 10519568

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10519568001	MW-14	EPA 8260	HNW	11	PASI-G
10519568002	MW-13	EPA 8260	HNW	11	PASI-G
10519568003	PZ-13	EPA 8260	HNW	11	PASI-G
10519568004	MW-12	EPA 8260	HNW	11	PASI-G
10519568005	PZ-11	EPA 8260	HNW	11	PASI-G
10519568006	MW-11	EPA 8260	HNW	11	PASI-G
10519568007	MW-20	EPA 8260	HNW	11	PASI-G
10519568008	MW-19	EPA 8260	HNW	11	PASI-G
10519568009	MW-22	EPA 8260	HNW	11	PASI-G
10519568010	PZ-21	EPA 8260	HNW	11	PASI-G
10519568011	MW-21	EPA 8260	HNW	11	PASI-G
10519568012	PZ-8R	EPA 8260	HNW	11	PASI-G
10519568013	MW-8R	EPA 8260	HNW	11	PASI-G
10519568014	MW-15	EPA 8260	HNW	11	PASI-G
10519568015	MW-1	EPA 8260	HNW	11	PASI-G
10519568016	MW-16	EPA 8260	HNW	11	PASI-G
10519568017	PZ-16	EPA 8260	HNW	11	PASI-G
10519568018	MW-2	EPA 8260	HNW	11	PASI-G
10519568019	MW-3D	EPA 8260	HNW	11	PASI-G
10519568020	PZ-3D	EPA 8260	HNW	11	PASI-G
10519568021	MW-9B	EPA 8260	HNW	11	PASI-G
10519568022	MW-17	EPA 8260	HNW	11	PASI-G
10519568023	PZ-17	EPA 8260	HNW	11	PASI-G
10519568024	MW-18	EPA 8260	HNW	11	PASI-G
10519568025	PZ-2/T66	EPA 8260	HNW	11	PASI-G
10519568026	Trip Blank	EPA 8260	HNW	11	PASI-G

PASI-G = Pace Analytical Services - Green Bay

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### ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-14**      **Lab ID: 10519568001**      Collected: 05/27/20 09:00      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 18:30	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 18:30	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 18:30	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 18:30	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 18:30	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 18:30	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 18:30	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 18:30	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	91	%	70-130		1		06/01/20 18:30	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		06/01/20 18:30	2037-26-5	
4-Bromofluorobenzene (S)	84	%	70-130		1		06/01/20 18:30	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-13**      **Lab ID: 10519568002**      Collected: 05/27/20 09:10      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 18:08	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 18:08	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 18:08	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 18:08	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 18:08	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 18:08	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 18:08	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 18:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	70-130		1		06/01/20 18:08	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		06/01/20 18:08	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		06/01/20 18:08	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: PZ-13**      **Lab ID: 10519568003**      Collected: 05/27/20 09:12      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 18:51	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 18:51	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 18:51	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 18:51	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 18:51	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 18:51	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 18:51	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 18:51	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	70-130		1		06/01/20 18:51	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		06/01/20 18:51	2037-26-5	
4-Bromofluorobenzene (S)	86	%	70-130		1		06/01/20 18:51	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-12**      **Lab ID: 10519568004**      Collected: 05/27/20 09:17      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 19:12	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 19:12	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 19:12	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 19:12	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 19:12	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 19:12	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 19:12	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 19:12	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	92	%	70-130		1		06/01/20 19:12	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		06/01/20 19:12	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		06/01/20 19:12	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: PZ-11**      **Lab ID: 10519568005**      Collected: 05/27/20 09:25      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 19:34	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 19:34	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 19:34	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 19:34	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 19:34	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 19:34	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 19:34	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 19:34	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	70-130		1		06/01/20 19:34	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		06/01/20 19:34	2037-26-5	
4-Bromofluorobenzene (S)	84	%	70-130		1		06/01/20 19:34	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-11**      **Lab ID: 10519568006**      Collected: 05/27/20 09:27      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 19:55	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 19:55	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 19:55	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 19:55	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 19:55	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 19:55	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 19:55	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 19:55	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	70-130		1		06/01/20 19:55	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		06/01/20 19:55	2037-26-5	
4-Bromofluorobenzene (S)	82	%	70-130		1		06/01/20 19:55	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-20**      **Lab ID: 10519568007**      Collected: 05/27/20 09:35      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 23:09	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 23:09	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 23:09	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 23:09	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 23:09	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 23:09	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 23:09	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 23:09	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	92	%	70-130		1		06/01/20 23:09	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		06/01/20 23:09	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		06/01/20 23:09	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-19**      **Lab ID: 10519568008**      Collected: 05/27/20 09:42      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 20:17	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 20:17	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 20:17	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 20:17	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 20:17	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 20:17	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 20:17	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 20:17	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	91	%	70-130		1		06/01/20 20:17	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		06/01/20 20:17	2037-26-5	
4-Bromofluorobenzene (S)	84	%	70-130		1		06/01/20 20:17	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-22**      **Lab ID: 10519568009**      Collected: 05/27/20 09:47      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 23:30	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 23:30	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 23:30	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 23:30	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 23:30	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 23:30	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 23:30	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 23:30	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	70-130		1		06/01/20 23:30	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		06/01/20 23:30	2037-26-5	
4-Bromofluorobenzene (S)	84	%	70-130		1		06/01/20 23:30	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: PZ-21**      **Lab ID: 10519568010**      Collected: 05/27/20 09:50      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 20:38	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 20:38	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 20:38	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 20:38	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 20:38	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 20:38	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 20:38	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 20:38	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	92	%	70-130		1		06/01/20 20:38	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		06/01/20 20:38	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		06/01/20 20:38	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-21**      **Lab ID: 10519568011**      Collected: 05/27/20 09:52      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 21:00	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 21:00	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 21:00	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 21:00	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 21:00	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 21:00	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 21:00	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 21:00	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	95	%	70-130		1		06/01/20 21:00	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		06/01/20 21:00	2037-26-5	
4-Bromofluorobenzene (S)	82	%	70-130		1		06/01/20 21:00	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: PZ-8R**      **Lab ID: 10519568012**      Collected: 05/27/20 10:30      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 21:21	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 21:21	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 21:21	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 21:21	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 21:21	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 21:21	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 21:21	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 21:21	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	93	%	70-130		1		06/01/20 21:21	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		06/01/20 21:21	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		06/01/20 21:21	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-8R**      **Lab ID: 10519568013**      Collected: 05/27/20 10:33      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 21:43	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 21:43	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 21:43	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 21:43	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 21:43	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 21:43	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 21:43	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 21:43	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	93	%	70-130		1		06/01/20 21:43	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		06/01/20 21:43	2037-26-5	
4-Bromofluorobenzene (S)	84	%	70-130		1		06/01/20 21:43	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-15**      **Lab ID: 10519568014**      Collected: 05/27/20 10:47      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/02/20 08:34	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/02/20 08:34	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/02/20 08:34	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/02/20 08:34	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/02/20 08:34	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/02/20 08:34	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/02/20 08:34	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/02/20 08:34	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	70-130		1		06/02/20 08:34	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		06/02/20 08:34	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		06/02/20 08:34	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-1**      **Lab ID: 10519568015**      Collected: 05/27/20 10:55      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 22:04	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 22:04	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 22:04	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 22:04	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 22:04	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 22:04	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 22:04	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 22:04	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	93	%	70-130		1		06/01/20 22:04	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/01/20 22:04	2037-26-5	
4-Bromofluorobenzene (S)	88	%	70-130		1		06/01/20 22:04	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

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**Sample: MW-16**      **Lab ID: 10519568016**      Collected: 05/27/20 11:03      Received: 05/28/20 18:45      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<b>&lt;0.25</b>	ug/L	1.0	0.25	1		06/01/20 22:26	71-43-2	
Ethylbenzene	<b>&lt;0.32</b>	ug/L	1.1	0.32	1		06/01/20 22:26	100-41-4	
Methyl-tert-butyl ether	<b>&lt;1.2</b>	ug/L	4.2	1.2	1		06/01/20 22:26	1634-04-4	
Naphthalene	<b>&lt;1.2</b>	ug/L	5.0	1.2	1		06/01/20 22:26	91-20-3	
Toluene	<b>&lt;0.27</b>	ug/L	0.90	0.27	1		06/01/20 22:26	108-88-3	
1,2,4-Trimethylbenzene	<b>&lt;0.84</b>	ug/L	2.8	0.84	1		06/01/20 22:26	95-63-6	
1,3,5-Trimethylbenzene	<b>&lt;0.87</b>	ug/L	2.9	0.87	1		06/01/20 22:26	108-67-8	
Xylene (Total)	<b>&lt;1.5</b>	ug/L	3.0	1.5	1		06/01/20 22:26	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	70-130		1		06/01/20 22:26	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		06/01/20 22:26	2037-26-5	
4-Bromofluorobenzene (S)	84	%	70-130		1		06/01/20 22:26	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: PZ-16**      **Lab ID: 10519568017**      Collected: 05/27/20 11:07      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 22:47	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 22:47	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 22:47	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 22:47	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 22:47	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 22:47	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 22:47	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 22:47	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	95	%	70-130		1		06/01/20 22:47	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		06/01/20 22:47	2037-26-5	
4-Bromofluorobenzene (S)	83	%	70-130		1		06/01/20 22:47	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-2**      **Lab ID: 10519568018**      Collected: 05/27/20 11:10      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/01/20 23:52	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/01/20 23:52	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/01/20 23:52	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/01/20 23:52	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/01/20 23:52	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/01/20 23:52	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/01/20 23:52	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/01/20 23:52	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	92	%	70-130		1		06/01/20 23:52	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		06/01/20 23:52	2037-26-5	
4-Bromofluorobenzene (S)	84	%	70-130		1		06/01/20 23:52	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-3D**      **Lab ID: 10519568019**      Collected: 05/27/20 11:13      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/02/20 00:13	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/02/20 00:13	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/02/20 00:13	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/02/20 00:13	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/02/20 00:13	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/02/20 00:13	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/02/20 00:13	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/02/20 00:13	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	92	%	70-130		1		06/02/20 00:13	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		06/02/20 00:13	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		06/02/20 00:13	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: PZ-3D**      **Lab ID: 10519568020**      Collected: 05/27/20 11:17      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/02/20 00:35	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/02/20 00:35	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/02/20 00:35	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/02/20 00:35	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/02/20 00:35	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/02/20 00:35	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/02/20 00:35	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/02/20 00:35	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	70-130		1		06/02/20 00:35	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		06/02/20 00:35	2037-26-5	
4-Bromofluorobenzene (S)	83	%	70-130		1		06/02/20 00:35	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-9B**      **Lab ID: 10519568021**      Collected: 05/27/20 11:27      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/02/20 12:41	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/02/20 12:41	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/02/20 12:41	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/02/20 12:41	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/02/20 12:41	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/02/20 12:41	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/02/20 12:41	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/02/20 12:41	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	70-130		1		06/02/20 12:41	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/02/20 12:41	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		06/02/20 12:41	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-17**      **Lab ID: 10519568022**      Collected: 05/27/20 11:36      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/02/20 12:18	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/02/20 12:18	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/02/20 12:18	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/02/20 12:18	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/02/20 12:18	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/02/20 12:18	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/02/20 12:18	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/02/20 12:18	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	70-130		1		06/02/20 12:18	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/02/20 12:18	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		06/02/20 12:18	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: PZ-17**      **Lab ID: 10519568023**      Collected: 05/27/20 11:39      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/02/20 13:03	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/02/20 13:03	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/02/20 13:03	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/02/20 13:03	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/02/20 13:03	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/02/20 13:03	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/02/20 13:03	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/02/20 13:03	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	70-130		1		06/02/20 13:03	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		06/02/20 13:03	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		06/02/20 13:03	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: MW-18**      **Lab ID: 10519568024**      Collected: 05/27/20 11:47      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/02/20 13:25	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/02/20 13:25	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/02/20 13:25	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/02/20 13:25	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/02/20 13:25	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/02/20 13:25	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/02/20 13:25	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/02/20 13:25	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	70-130		1		06/02/20 13:25	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/02/20 13:25	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		06/02/20 13:25	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: PZ-2/T66**      **Lab ID: 10519568025**      Collected: 05/27/20 11:55      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/02/20 13:47	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/02/20 13:47	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/02/20 13:47	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/02/20 13:47	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/02/20 13:47	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/02/20 13:47	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/02/20 13:47	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/02/20 13:47	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	70-130		1		06/02/20 13:47	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/02/20 13:47	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		06/02/20 13:47	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

**Sample: Trip Blank**      **Lab ID: 10519568026**      Collected: 05/27/20 00:00      Received: 05/28/20 18:45      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/02/20 16:47	71-43-2	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/02/20 16:47	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		06/02/20 16:47	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		06/02/20 16:47	91-20-3	
Toluene	<0.27	ug/L	0.90	0.27	1		06/02/20 16:47	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		06/02/20 16:47	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		06/02/20 16:47	108-67-8	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/02/20 16:47	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	104	%	70-130		1		06/02/20 16:47	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/02/20 16:47	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		06/02/20 16:47	460-00-4	

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**QUALITY CONTROL DATA**

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

QC Batch:	356260	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV UST-WATER
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Samples:	10519568001, 10519568002, 10519568003, 10519568004, 10519568005, 10519568006, 10519568007, 10519568008, 10519568009, 10519568010, 10519568011, 10519568012, 10519568013, 10519568014, 10519568015, 10519568016, 10519568017, 10519568018, 10519568019, 10519568020		

METHOD BLANK:	2060738	Matrix:	Water
Associated Lab Samples:	10519568001, 10519568002, 10519568003, 10519568004, 10519568005, 10519568006, 10519568007, 10519568008, 10519568009, 10519568010, 10519568011, 10519568012, 10519568013, 10519568014, 10519568015, 10519568016, 10519568017, 10519568018, 10519568019, 10519568020		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	06/01/20 14:12	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	06/01/20 14:12	
Benzene	ug/L	<0.25	1.0	06/01/20 14:12	
Ethylbenzene	ug/L	<0.32	1.1	06/01/20 14:12	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	06/01/20 14:12	
Naphthalene	ug/L	<1.2	5.0	06/01/20 14:12	
Toluene	ug/L	<0.27	0.90	06/01/20 14:12	
Xylene (Total)	ug/L	<1.5	3.0	06/01/20 14:12	
4-Bromofluorobenzene (S)	%	84	70-130	06/01/20 14:12	
Dibromofluoromethane (S)	%	94	70-130	06/01/20 14:12	
Toluene-d8 (S)	%	98	70-130	06/01/20 14:12	

LABORATORY CONTROL SAMPLE: 2060739						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	46.1	92	70-130	
Ethylbenzene	ug/L	50	50.1	100	80-120	
Methyl-tert-butyl ether	ug/L	50	52.9	106	61-129	
Toluene	ug/L	50	47.4	95	80-120	
Xylene (Total)	ug/L	150	151	101	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Dibromofluoromethane (S)	%			96	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2060774												2060775	
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10519568001 Result	Spike Conc.	Spike Conc.	Conc.								
Benzene	ug/L	<0.25	50	50	50	45.3	44.6	91	89	70-136	1	20	
Ethylbenzene	ug/L	<0.32	50	50	50	48.0	47.7	96	95	80-120	0	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	50	50.9	50.5	102	101	61-136	1	20	
Toluene	ug/L	<0.27	50	50	50	44.4	44.8	89	90	80-120	1	20	
Xylene (Total)	ug/L	<1.5	150	150	150	142	142	94	94	70-130	0	20	
4-Bromofluorobenzene (S)	%							99	96	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.

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### QUALITY CONTROL DATA

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

Parameter	Units	2060774		2060775		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10519568001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Dibromofluoromethane (S)	%					99	99	70-130			
Toluene-d8 (S)	%					97	98	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.

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### QUALITY CONTROL DATA

Project: 49161494.00 200 202 SRC GW ERP  
Pace Project No.: 10519568

QC Batch: 356261 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER  
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 10519568021, 10519568022, 10519568023, 10519568024, 10519568025, 10519568026

METHOD BLANK: 2060740 Matrix: Water  
Associated Lab Samples: 10519568021, 10519568022, 10519568023, 10519568024, 10519568025, 10519568026

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	06/02/20 07:03	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	06/02/20 07:03	
Benzene	ug/L	<0.25	1.0	06/02/20 07:03	
Ethylbenzene	ug/L	<0.32	1.1	06/02/20 07:03	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	06/02/20 07:03	
Naphthalene	ug/L	<1.2	5.0	06/02/20 07:03	
Toluene	ug/L	<0.27	0.90	06/02/20 07:03	
Xylene (Total)	ug/L	<1.5	3.0	06/02/20 07:03	
4-Bromofluorobenzene (S)	%	96	70-130	06/02/20 07:03	
Dibromofluoromethane (S)	%	101	70-130	06/02/20 07:03	
Toluene-d8 (S)	%	100	70-130	06/02/20 07:03	

LABORATORY CONTROL SAMPLE: 2060741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	45.6	91	70-130	
Ethylbenzene	ug/L	50	48.4	97	80-120	
Methyl-tert-butyl ether	ug/L	50	43.6	87	61-129	
Toluene	ug/L	50	46.9	94	80-120	
Xylene (Total)	ug/L	150	148	99	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Dibromofluoromethane (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2061043 2061044

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10519568021 Result	Spike Conc.	Spike Conc.	MS Result						
Benzene	ug/L	<0.25	50	50	49.3	49.6	99	99	70-136	1	20
Ethylbenzene	ug/L	<0.32	50	50	52.2	52.4	104	105	80-120	0	20
Methyl-tert-butyl ether	ug/L	<1.2	50	50	46.5	46.5	93	93	61-136	0	20
Toluene	ug/L	<0.27	50	50	50.3	50.5	101	101	80-120	0	20
Xylene (Total)	ug/L	<1.5	150	150	159	160	106	107	70-130	1	20
4-Bromofluorobenzene (S)	%						100	100	70-130		
Dibromofluoromethane (S)	%						102	102	70-130		
Toluene-d8 (S)	%						100	100	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.

## QUALIFIERS

Project: 49161494.00 200 202 SRC GW ERP

Pace Project No.: 10519568

---

### 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: 49161494.00 200 202 SRC GW ERP  
Pace Project No.: 10519568

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10519568001	MW-14	EPA 8260	356260		
10519568002	MW-13	EPA 8260	356260		
10519568003	PZ-13	EPA 8260	356260		
10519568004	MW-12	EPA 8260	356260		
10519568005	PZ-11	EPA 8260	356260		
10519568006	MW-11	EPA 8260	356260		
10519568007	MW-20	EPA 8260	356260		
10519568008	MW-19	EPA 8260	356260		
10519568009	MW-22	EPA 8260	356260		
10519568010	PZ-21	EPA 8260	356260		
10519568011	MW-21	EPA 8260	356260		
10519568012	PZ-8R	EPA 8260	356260		
10519568013	MW-8R	EPA 8260	356260		
10519568014	MW-15	EPA 8260	356260		
10519568015	MW-1	EPA 8260	356260		
10519568016	MW-16	EPA 8260	356260		
10519568017	PZ-16	EPA 8260	356260		
10519568018	MW-2	EPA 8260	356260		
10519568019	MW-3D	EPA 8260	356260		
10519568020	PZ-3D	EPA 8260	356260		
10519568021	MW-9B	EPA 8260	356261		
10519568022	MW-17	EPA 8260	356261		
10519568023	PZ-17	EPA 8260	356261		
10519568024	MW-18	EPA 8260	356261		
10519568025	PZ-2/T66	EPA 8260	356261		
10519568026	Trip Blank	EPA 8260	356261		

### 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:

- Ann Arbor  Duluth  Hibbing  Minneapolis  Bismarck  Grand Rapids  Jefferson City  Salt Lake City

- KS  MO  UT  MI  ND  SD  MN  SD Other: \_\_\_\_\_

40208579

COC Number: **58468**

COC 1 of 3

REPORT TO	INVOICE TO
Company: <i>Barr Engineering Co</i>	Company: <i>Barr</i>
Address: <i>325 S. Lake Ave. Duluth MN</i>	Address: <i>[Arrow]</i>
Name: <i>Lynette Conway</i>	Name: <i>[Arrow]</i>
email: <i>lconway@barr.com</i>	email: <i>[Arrow]</i>
Copy to: <i>datamgt@barr.com</i>	P.O. <i>-</i>
Project Name: <i>SRLGW Sampling ERP</i>	Barr Project No: <i>49161494.00 200 202</i>

Perform	MS/MSD	Y / N	Analysis Requested		Total Number Of Containers	PVC + Naphthalene	% Solids
			Water	Soil			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

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

Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Perform	MS/MSD	Y / N	Total Number Of Containers	PVC + Naphthalene	% Solids
	Start	Stop	Unit (m./ft. or in.)									
1. MW-14				05/27/2020	0900	GW	N	3	X			
2. MW-13					0910		N	3	X			
3. PZ-13					0912		N	3	X			
4. MW-12					0917		N	3	X			
5. PZ-11					0925		N	3	X			
6. MW-11					0927		N	3	X			
7. MW-20					0935		N	3	X			
8. MW-19					0942		N	3	X			
9. MW-22					0947		N	3	X			
10. PZ-21					0950		N	3	X			

Preservative Code
Field Filtered Y/N
001
002
003
004
005
006
007
008
009
010

<b>BARR USE ONLY</b>		Relinquished by: <i>[Signature]</i>	On Ice? <input checked="" type="checkbox"/> N	Date: <i>5/29/20</i>	Time: <i>1:15</i>	Received by: <i>[Signature]</i>	Date: <i>5/28/20</i>	Time: <i>10:00 4:20</i>
Sampled by: <i>VMJ3</i>	Relinquished by: <i>[Signature]</i>	On Ice? <input checked="" type="checkbox"/> N	Date: <i>5/28/20</i>	Time: <i>10:50</i>	Received by: <i>[Signature]</i>	Date: <i>5/28/20</i>	Time: <i>18:45</i>	
Barr Proj. Manager: <i>LMC</i>	Samples Shipped VIA: <input type="checkbox"/> Courier <input type="checkbox"/> Federal Express <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)			
Barr DQ Manager: <i>JET</i>	Lab Name: <i>Pace</i>	Lab WO: _____	Temperature on Receipt (°C): <i>/</i>	Custody Seal Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> None		Page 36 of 36		

Distribution - White-Original: Accompanies Shipment to Laboratory; Yellow Copy: Include in Field Documents; Pink Copy: Send to Data Management Administrators.

*waltco 5/30/20 0830* *[Signature] Pace 5/30/20 0830*

BARR Engineering Co. Chain of Custody Form 2015 RLG Rev. 01/02/18

# Barr Engineering Co. Chain of Custody

58469

Sample Origination State:

- Ann Arbor    Duluth    Hibbing    Minneapolis  
 Bismarck    Grand Rapids    Jefferson City    Salt Lake City

- KS    MO    UT  
 MI    ND    WI  
 MN    SD   Other: \_\_\_\_\_

Analysis Requested

Water   Soil

COC Number: **58469**

COC 2 of 3

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

REPORT TO

INVOICE TO

Company: Barr Engineering Co.  
 Address: 325 S. Lake Ave. Duluth MN  
 Name: Lynette Carney  
 email: lcarney@barr.com  
 Copy to: datamgt@barr.com

Company: Barr  
 Address: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 email: \_\_\_\_\_  
 P.O.: \_\_\_\_\_

Project Name: SRC GW Sampling ERP

Barr Project No: 49161494.00 200 202

Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Perform	MS/MSD	Y	I	N	Total Number Of Containers	Analysis Requested		% Solids	
	Start	Stop	Unit (m./ft. or in.)										Water	Soil		
1. <u>MW-21</u>	_____	_____	_____	<u>05/27/2020</u>	<u>0952</u>	<u>GW</u>	<u>N</u>					<u>3</u>	<u>X</u>			
2. <u>PZ-8R</u>	_____	_____	_____		<u>1030</u>		<u>N</u>					<u>3</u>	<u>X</u>			
3. <u>MW-8R</u>	_____	_____	_____		<u>1033</u>		<u>N</u>					<u>3</u>	<u>X</u>			
4. <u>MW-15</u>	_____	_____	_____		<u>1047</u>		<u>N</u>					<u>3</u>	<u>X</u>			
5. <u>MW-1</u>	_____	_____	_____		<u>1055</u>		<u>N</u>					<u>3</u>	<u>X</u>			
6. <u>MW-16</u>	_____	_____	_____		<u>1103</u>		<u>N</u>					<u>3</u>	<u>X</u>			
7. <u>PZ-16</u>	_____	_____	_____		<u>1107</u>		<u>N</u>					<u>3</u>	<u>X</u>			
8. <u>MW-2</u>	_____	_____	_____		<u>1110</u>		<u>N</u>					<u>3</u>	<u>X</u>			
9. <u>MW-3D</u>	_____	_____	_____		<u>1113</u>		<u>N</u>					<u>3</u>	<u>X</u>			
10. <u>PZ-3D</u>	_____	_____	_____		<u>1117</u>		<u>N</u>					<u>3</u>	<u>X</u>			

Total Number Of Containers  
10 PUC + Naphthalene

Preservative Code

Field Filtered Y/N

011 ~~00~~ ~~EST~~ Stamp  
012  
013  
014  
015  
016  
017  
018  
019  
020

BARR USE ONLY

Sampled by: WMTJ3  
 Barr Proj. Manager: UML  
 Barr DQ Manager: JET  
 Lab Name: Duluth  
 Lab Location: Pra Municipal

Relinquished by: [Signature]

On Ice?  N  Y   Date 5/28/20   Time 10:45

Received by: [Signature]   Date 5/28/20   Time 10:50

Relinquished by: [Signature]

On Ice?  N  Y   Date 5/28/20   Time 10:50

Received by: [Signature]   Date 5/28/20   Time 18:45

Samples Shipped VIA:  Courier    Federal Express    Sampler  
 Other: \_\_\_\_\_

Air Bill Number: \_\_\_\_\_

Requested Due Date:

Standard Turn Around Time

Rush \_\_\_\_\_ (mm/dd/yyyy)

Lab WO: \_\_\_\_\_

Temperature on Receipt (°C): \_\_\_\_\_

Custody Seal Intact?  Y  N  None

Page 37 of 38

BARR STDFORMS/Chain of Custody Form 2015\_RLG Rev. 01/02/18

Distribution - White-Original: Accompanies Shipment to Laboratory; Yellow Copy: Include in Field Documents; Pink Copy: Send to Data Management Administrator

waltco   5/28/20   0830   [Signature]   5/28/20   0830

# Barr Engineering Co. Chain of Custody

Sample Origination State:

- Ann Arbor  Duluth  Hibbing  Minneapolis  Bismarck  Grand Rapids  Jefferson City  Salt Lake City

- KS  MO  UT  MI  ND  WI  MN  SD Other: \_\_\_\_\_

40208579

Analysis Requested		COC Number: <b>58470</b>
Water	Soil	COC <u>3</u> of <u>3</u>
		<b>Matrix Code:</b> GW = Groundwater SW = Surface Water WW = Waste Water DW = Drinking Water S = Soil/Solid SD = Sediment O = Other
		<b>Preservative Code:</b> A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> I = Ascorbic Acid J = NH <sub>4</sub> Cl K = Zn Acetate O = Other

REPORT TO	INVOICE TO
Company: <u>Barr Engineering Co</u>	Company: <u>Barr</u>
Address: <u>325 S. Lake Ave. Duluth MN</u>	Address: _____
Name: <u>Lynette Carney</u>	Name: _____
email: <u>lcarney@barr.com</u>	email: _____
Copy to: <u>datamgt@barr.com</u>	P.O. _____
Project Name: <u>SRC GWSampling ERP</u>	Barr Project No: <u>49161494.00 200 202</u>

Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Perform MS/MSD Y/N	Total Number Of Containers	Analysis Requested		% Solids	Preservative Code
	Start	Stop	Unit (m./ft. or in.)						Water	Soil		
1. <u>MW-9B</u>	—	—	—	<u>05/27/2020</u>	<u>1127</u>	<u>GW</u>	<u>N</u>	<u>3</u>				<u>021</u>
2. <u>MW-17</u>	—	—	—	↓	<u>1136</u>		<u>N</u>	<u>3</u>				<u>022</u>
3. <u>PZ-17</u>	—	—	—		<u>1139</u>		<u>N</u>	<u>3</u>				<u>023</u>
4. <u>MW-18</u>	—	—	—		<u>1147</u>		<u>N</u>	<u>3</u>				<u>024</u>
5. <u>PZ-2/T66</u>	—	—	—		<u>1155</u>		<u>N</u>	<u>3</u>				<u>025</u>
6. <u>Trip Blank</u>	—	—	—		—		<u>N</u>	<u>2</u>				<u>026</u>
7.												
8.												
9.												
10.												

<b>BARR USE ONLY</b>		Relinquished by: <u>[Signature]</u>	On Ice? <input checked="" type="radio"/> N	Date <u>5/28/20</u>	Time <u>10:45</u>	Received by: <u>[Signature]</u>	Date <u>5/28/20</u>	Time <u>10:50</u>
Sampled by: <u>UMTB</u>	Relinquished by: <u>[Signature]</u>	On Ice? <input checked="" type="radio"/> Y	Date <u>5/28/20</u>	Time <u>10:30</u>	Received by: <u>[Signature]</u>	Date <u>5/28/20</u>	Time <u>10:45</u>	
Barr Proj. Manager: <u>UMC</u>	Samples Shipped VIA: <input type="checkbox"/> Courier <input type="checkbox"/> Federal Express <input type="checkbox"/> Sampler	Air Bill Number: _____		Requested Due Date: <input checked="" type="checkbox"/> Standard Turn Around Time		Requested Due Date: <input type="checkbox"/> Rush _____ (mm/dd/yyyy)		
Barr DQ Manager: <u>JET</u>	Other: _____	Custody Seal Intact? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> None		Page 38 of _____				
Lab Name: <u>Pace</u>	Lab WO: _____	Temperature on Receipt (°C): _____		Distribution - White-Original: Accompanies Shipment to Laboratory; Yellow Copy: Include in Field Documents; Pink Copy: Send to Data Management Administrators.				

waltco 5/30/20 0830  
 Mike Pace 5/30/20 0830

Study Form 2015 RLG Rev. 01/02/18





Client Name: Pace / MN

**Sample Preservation Receipt Form**

Pace Analytical Services, LLC  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

Project # 40208879

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Initial when completed:

Date/Time:

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):


Pace Lab #	Glass							Plastic					Vials					Jars				General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)			
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC								GN		
001															3																			2.5 / 5 / 10
002															3																			2.5 / 5 / 10
003															3																			2.5 / 5 / 10
004															3																			2.5 / 5 / 10
005															3																			2.5 / 5 / 10
006															3																			2.5 / 5 / 10
007															3																			2.5 / 5 / 10
008															3																			2.5 / 5 / 10
009															3																			2.5 / 5 / 10
010															3																			2.5 / 5 / 10
011															3																			2.5 / 5 / 10
012															3																			2.5 / 5 / 10
013															3																			2.5 / 5 / 10
014															3																			2.5 / 5 / 10
015															3																			2.5 / 5 / 10
016															3																			2.5 / 5 / 10
017															3																			2.5 / 5 / 10
018															3																			2.5 / 5 / 10
019															3																			2.5 / 5 / 10
020															3																			2.5 / 5 / 10

Exceptions to preservation check: VOA Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: \_\_\_\_\_ Headspace in VOA Vials (>6mm):  Yes  No  N/A \*If yes look in headspace column

<b>AG1U</b> 1 liter amber glass	<b>BP1U</b> 1 liter plastic unpres	<b>VG9A</b> 40 mL clear ascorbic	<b>JGFU</b> 4 oz amber jar unpres
<b>BG1U</b> 1 liter clear glass	<b>BP3U</b> 250 mL plastic unpres	<b>DG9T</b> 40 mL amber Na Thio	<b>JG9U</b> 9 oz amber jar unpres
<b>AG1H</b> 1 liter amber glass HCL	<b>BP3B</b> 250 mL plastic NaOH	<b>VG9U</b> 40 mL clear vial unpres	<b>WGFU</b> 4 oz clear jar unpres
<b>AG4S</b> 125 mL amber glass H2SO4	<b>BP3N</b> 250 mL plastic HNO3	<b>VG9H</b> 40 mL clear vial HCL	<b>WPFU</b> 4 oz plastic jar unpres
<b>AG4U</b> 120 mL amber glass unpres	<b>BP3S</b> 250 mL plastic H2SO4	<b>VG9M</b> 40 mL clear vial MeOH	<b>SP5T</b> 120 mL plastic Na Thiosulfate
<b>AG5U</b> 100 mL amber glass unpres		<b>VG9D</b> 40 mL clear vial DI	<b>ZPLC</b> ziploc bag
<b>AG2S</b> 500 mL amber glass H2SO4			<b>GN</b>
<b>BG3U</b> 250 mL clear glass unpres			





 1241 Bellevue Street, Green Bay, WI 54302	Document Name: <b>Sample Condition Upon Receipt (SCUR)</b>	Document Revised: 26Mar2020
	Document No.: <b>ENV-FRM-GBAY-0014-Rev.00</b>	Author: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Client Name: Pace MN  
 Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walto  
 Client  Pace Other: \_\_\_\_\_

Project #: \_\_\_\_\_

**WO#: 40208579**



Tracking #: 2451434-2  
 Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no  
 Custody Seal on Samples Present:  yes  no Seals intact:  yes  no  
 Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer Used SR-86 Type of Ice:  Blue  Dry  None  Samples on ice, cooling process has begun  
 Cooler Temperature Uncorr: 0 /Corr: 1  
 Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Person examining contents:  
 Date: 5/30/20 /Initials: WLP  
 Labeled By Initials: SMW

Temp should be above freezing to 6°C.  
 Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4. <u>SKWO</u> <u>5/30/20</u> <u>WLP</u>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
-Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

# Pace Container Order #647929

40208579

Addresses	Ship To :	Return To:
<b>Order By :</b>	<b>Company</b> HOLD FOR CLIENT	<b>Company</b> Pace Analytical Minnesota
<b>Company</b> Barr Engineering	<b>Contact</b> Taraldsen, James	<b>Contact</b> Albrecht, Amanda
<b>Contact</b> Taraldsen, James	<b>Email</b> jtaraldsen@barr.com	<b>Email</b> amanda.albrecht@pacelabs.com
<b>Email</b> jtaraldsen@barr.com	<b>Address</b> 4730 Oneota Street	<b>Address</b> 1700 Elm Street
<b>Address</b> 325 South Lake Avenue	<b>Address 2</b>	<b>Address 2</b> Suite 200
<b>Address 2</b> Suite 700	<b>City</b> Duluth	<b>City</b> Minneapolis
<b>City</b> Duluth	<b>State</b> MN Zip 55807	<b>State</b> MN Zip 55414
<b>State</b> MN Zip 55802	<b>Phone</b> (218) 529-7138	<b>Phone</b> (612)607-6382
<b>Phone</b> 218-529-7138		

Info			
<b>Project Name</b> SRC GW sampling ERP	<b>Due Date</b> 05/20/2020	<b>Profile</b> 38604, line 6	<b>Quote</b> 00074987
<b>Project Manager</b> Albrecht, Amanda	<b>Return Date</b>	<b>Carrier</b> Pace Courier	<b>Location</b> WI

**Trip Blanks**

Include Trip Blanks

**Bottle Labels**

Blank

Pre-Printed No Sample IDs

Pre-Printed With Sample IDs

**Bottles**

Boxed Cases

Individually Wrapped

Grouped By Sample ID/Matrix

**Return Shipping Labels**

No Shipper

With Shipper

**Misc**

Sampling Instructions

Custody Seal

Temp. Blanks

Coolers

Syringes

Extra Bubble Wrap

Short Hold/Rush Stickers

DI Water

USDA Regulated Soils

**COC Options**

Number of Blanks

Pre-Printed

# of Samples	Matrix	Test	Container	Total	# of	Lot #	Notes
33	WT	PVOC + Naphthalene	3-40mL glass vial w/ HCl	111	12	050420-3cyr	
2	WT	Trip BLANK	2-40mL HCL w/custody seal	4	0	257175	

RETURN W/ SAMPLES

**Hazard Shipping Placard In Place : YES**

\*Sample receiving hours are Mon-Fri 7:30am-7:00pm and Sat 9:00am-1:00pm unless special arrangements are made with your project manager.

\*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

\*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

\*Payment term are net 30 days.

\*Please include the proposal number on the chain of custody to insure proper billing.

**LAB USE:**

**Ship Date :**

**Prepared By:**

**Verified By:**

**Sample**

**CLIENT USE (Optional):**

**Date Rec'd:**

**Received By:**

**Verified By:**

October 21, 2020

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

RE: Project: 49161494.00 200 203 SRC GW ERP  
Pace Project No.: 10534502

Dear Jim Taraldsen:

Enclosed are the analytical results for sample(s) received by the laboratory on October 06, 2020. 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,



Amanda Albrecht  
amanda.albrecht@pacelabs.com  
(612)607-6382  
Project Manager

Enclosures

cc: BarrDM, Barr Engineering Company  
Data Management, Barr Engineering  
Accounts Payable, Barr Engineering



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

---

### **Pace Analytical Services - Minneapolis MN**

1700 Elm Street SE, Minneapolis, MN 55414

1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

A2LA Certification #: 2926.01\*

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009\*

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014\*

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605\*

Georgia Certification #: 959

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086\*

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064\*

Maryland Certification #: 322

Massachusetts DWP Certification #: via MN 027-053-137

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137\*

Minnesota Dept of Ag Certification #: via MN 027-053-137

Minnesota Petrofund Certification #: 1240\*

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081\*

New Jersey Certification #: MN002

New York Certification #: 11647\*

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507\*

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001\*

Pennsylvania Certification #: 68-00563\*

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192\*

Utah Certification #: MN00064\*

Vermont Certification #: VT-027053137

Virginia Certification #: 460163\*

Washington Certification #: C486\*

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

USDA Permit #: P330-19-00208

\*Please Note: Applicable air certifications are denoted with an asterisk (\*).

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10534502001	PZ-8R	Water	10/05/20 08:40	10/06/20 19:30
10534502002	MW-15	Water	10/05/20 09:15	10/06/20 19:30
10534502003	MW-16	Water	10/05/20 09:48	10/06/20 19:30
10534502004	PZ-16	Water	10/05/20 09:52	10/06/20 19:30
10534502005	PZ-3D	Water	10/05/20 10:12	10/06/20 19:30
10534502006	MW-17	Water	10/05/20 11:00	10/06/20 19:30
10534502007	PZ-17	Water	10/05/20 11:05	10/06/20 19:30
10534502008	MW-18	Water	10/05/20 11:13	10/06/20 19:30
10534502009	PZ-2 / T66	Water	10/05/20 11:22	10/06/20 19:30
10534502010	MW-20	Water	10/05/20 12:20	10/06/20 19:30
10534502011	PZ-21	Water	10/05/20 12:30	10/06/20 19:30
10534502012	MW-21	Water	10/05/20 12:35	10/06/20 19:30
10534502013	MW-22	Water	10/05/20 12:45	10/06/20 19:30
10534502014	MW-19	Water	10/05/20 12:55	10/06/20 19:30
10534502015	MW-11	Water	10/05/20 13:08	10/06/20 19:30
10534502016	PZ-11	Water	10/05/20 13:11	10/06/20 19:30
10534502017	MW-12	Water	10/05/20 13:25	10/06/20 19:30
10534502018	MW-13	Water	10/05/20 13:35	10/06/20 19:30
10534502019	PZ-13	Water	10/05/20 13:40	10/06/20 19:30
10534502020	MW-14	Water	10/05/20 13:50	10/06/20 19:30
10534502021	Trip Blank	Water	10/05/20 00:00	10/06/20 19:30

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10534502001	PZ-8R	EPA 8260B	LT1	11	PASI-M
10534502002	MW-15	EPA 8260B	LT1	11	PASI-M
10534502003	MW-16	EPA 8260B	LT1	11	PASI-M
10534502004	PZ-16	EPA 8260B	LT1	11	PASI-M
10534502005	PZ-3D	EPA 8260B	LT1	11	PASI-M
10534502006	MW-17	EPA 8260B	LT1	11	PASI-M
10534502007	PZ-17	EPA 8260B	LT1	11	PASI-M
10534502008	MW-18	EPA 8260B	LT1	11	PASI-M
10534502009	PZ-2 / T66	EPA 8260B	LT1	11	PASI-M
10534502010	MW-20	EPA 8260B	LT1	11	PASI-M
10534502011	PZ-21	EPA 8260B	LT1	11	PASI-M
10534502012	MW-21	EPA 8260B	LT1	11	PASI-M
10534502013	MW-22	EPA 8260B	LT1	11	PASI-M
10534502014	MW-19	EPA 8260B	LT1	11	PASI-M
10534502015	MW-11	EPA 8260B	LT1	11	PASI-M
10534502016	PZ-11	EPA 8260B	LT1	11	PASI-M
10534502017	MW-12	EPA 8260B	LT1	11	PASI-M
10534502018	MW-13	EPA 8260B	LT1	11	PASI-M
10534502019	PZ-13	EPA 8260B	LT1	11	PASI-M
10534502020	MW-14	EPA 8260B	LT1	11	PASI-M
10534502021	Trip Blank	EPA 8260B	AEZ	11	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: PZ-8R**      **Lab ID: 10534502001**      Collected: 10/05/20 08:40      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/14/20 16:02	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/14/20 16:02	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/14/20 16:02	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/14/20 16:02	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/14/20 16:02	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/14/20 16:02	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/14/20 16:02	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/14/20 16:02	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	105	%	75-125		1		10/14/20 16:02	17060-07-0	
Toluene-d8 (S)	101	%	75-125		1		10/14/20 16:02	2037-26-5	
4-Bromofluorobenzene (S)	109	%	75-125		1		10/14/20 16:02	460-00-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-15**      **Lab ID: 10534502002**      Collected: 10/05/20 09:15      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 13:02	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 13:02	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 13:02	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 13:02	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 13:02	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 13:02	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 13:02	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 13:02	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	106	%	75-125		1		10/13/20 13:02	17060-07-0	
Toluene-d8 (S)	103	%	75-125		1		10/13/20 13:02	2037-26-5	
4-Bromofluorobenzene (S)	107	%	75-125		1		10/13/20 13:02	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-16**      **Lab ID: 10534502003**      Collected: 10/05/20 09:48      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 12:26	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 12:26	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 12:26	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 12:26	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 12:26	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 12:26	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 12:26	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 12:26	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	106	%	75-125		1		10/13/20 12:26	17060-07-0	
Toluene-d8 (S)	103	%	75-125		1		10/13/20 12:26	2037-26-5	
4-Bromofluorobenzene (S)	103	%	75-125		1		10/13/20 12:26	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: PZ-16**      **Lab ID: 10534502004**      Collected: 10/05/20 09:52      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 13:20	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 13:20	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 13:20	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 13:20	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 13:20	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 13:20	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 13:20	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 13:20	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	106	%	75-125		1		10/13/20 13:20	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/13/20 13:20	2037-26-5	
4-Bromofluorobenzene (S)	105	%	75-125		1		10/13/20 13:20	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: PZ-3D**      **Lab ID: 10534502005**      Collected: 10/05/20 10:12      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 13:37	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 13:37	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 13:37	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 13:37	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 13:37	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 13:37	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 13:37	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 13:37	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	103	%	75-125		1		10/13/20 13:37	17060-07-0	
Toluene-d8 (S)	103	%	75-125		1		10/13/20 13:37	2037-26-5	
4-Bromofluorobenzene (S)	107	%	75-125		1		10/13/20 13:37	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-17**      **Lab ID: 10534502006**      Collected: 10/05/20 11:00      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 13:55	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 13:55	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 13:55	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 13:55	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 13:55	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 13:55	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 13:55	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 13:55	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	107	%	75-125		1		10/13/20 13:55	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/13/20 13:55	2037-26-5	
4-Bromofluorobenzene (S)	105	%	75-125		1		10/13/20 13:55	460-00-4	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: PZ-17**      **Lab ID: 10534502007**      Collected: 10/05/20 11:05      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 14:13	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 14:13	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 14:13	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 14:13	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 14:13	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 14:13	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 14:13	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 14:13	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	106	%	75-125		1		10/13/20 14:13	17060-07-0	
Toluene-d8 (S)	103	%	75-125		1		10/13/20 14:13	2037-26-5	
4-Bromofluorobenzene (S)	102	%	75-125		1		10/13/20 14:13	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-18**      **Lab ID: 10534502008**      Collected: 10/05/20 11:13      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 14:30	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 14:30	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 14:30	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 14:30	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 14:30	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 14:30	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 14:30	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 14:30	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	104	%	75-125		1		10/13/20 14:30	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/13/20 14:30	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125		1		10/13/20 14:30	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: PZ-2 / T66**      **Lab ID: 10534502009**      Collected: 10/05/20 11:22      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 14:48	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 14:48	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 14:48	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 14:48	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 14:48	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 14:48	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 14:48	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 14:48	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	106	%	75-125		1		10/13/20 14:48	17060-07-0	
Toluene-d8 (S)	100	%	75-125		1		10/13/20 14:48	2037-26-5	
4-Bromofluorobenzene (S)	105	%	75-125		1		10/13/20 14:48	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-20**      **Lab ID: 10534502010**      Collected: 10/05/20 12:20      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 15:06	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 15:06	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 15:06	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 15:06	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 15:06	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 15:06	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 15:06	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 15:06	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	108	%	75-125		1		10/13/20 15:06	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/13/20 15:06	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125		1		10/13/20 15:06	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: PZ-21**      **Lab ID: 10534502011**      Collected: 10/05/20 12:30      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 15:24	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 15:24	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 15:24	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 15:24	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 15:24	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 15:24	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 15:24	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 15:24	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	106	%	75-125		1		10/13/20 15:24	17060-07-0	
Toluene-d8 (S)	103	%	75-125		1		10/13/20 15:24	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125		1		10/13/20 15:24	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-21**      **Lab ID: 10534502012**      Collected: 10/05/20 12:35      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 15:42	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 15:42	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 15:42	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 15:42	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 15:42	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 15:42	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 15:42	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 15:42	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	104	%	75-125		1		10/13/20 15:42	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/13/20 15:42	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125		1		10/13/20 15:42	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-22**      **Lab ID: 10534502013**      Collected: 10/05/20 12:45      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 16:00	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 16:00	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 16:00	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 16:00	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 16:00	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 16:00	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 16:00	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 16:00	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	105	%	75-125		1		10/13/20 16:00	17060-07-0	
Toluene-d8 (S)	103	%	75-125		1		10/13/20 16:00	2037-26-5	
4-Bromofluorobenzene (S)	103	%	75-125		1		10/13/20 16:00	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-19**      **Lab ID: 10534502014**      Collected: 10/05/20 12:55      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 16:17	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 16:17	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 16:17	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 16:17	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 16:17	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 16:17	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 16:17	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 16:17	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	104	%	75-125		1		10/13/20 16:17	17060-07-0	
Toluene-d8 (S)	105	%	75-125		1		10/13/20 16:17	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125		1		10/13/20 16:17	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-11**      **Lab ID: 10534502015**      Collected: 10/05/20 13:08      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 16:35	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 16:35	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 16:35	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 16:35	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 16:35	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 16:35	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 16:35	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 16:35	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	107	%	75-125		1		10/13/20 16:35	17060-07-0	
Toluene-d8 (S)	103	%	75-125		1		10/13/20 16:35	2037-26-5	
4-Bromofluorobenzene (S)	105	%	75-125		1		10/13/20 16:35	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: PZ-11**      **Lab ID: 10534502016**      Collected: 10/05/20 13:11      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 16:53	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 16:53	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 16:53	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 16:53	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 16:53	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 16:53	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 16:53	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 16:53	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	108	%	75-125		1		10/13/20 16:53	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/13/20 16:53	2037-26-5	
4-Bromofluorobenzene (S)	103	%	75-125		1		10/13/20 16:53	460-00-4	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-12**      **Lab ID: 10534502017**      Collected: 10/05/20 13:25      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 17:10	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 17:10	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 17:10	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 17:10	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 17:10	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 17:10	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 17:10	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 17:10	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	108	%	75-125		1		10/13/20 17:10	17060-07-0	
Toluene-d8 (S)	102	%	75-125		1		10/13/20 17:10	2037-26-5	
4-Bromofluorobenzene (S)	103	%	75-125		1		10/13/20 17:10	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-13**      **Lab ID: 10534502018**      Collected: 10/05/20 13:35      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 17:28	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 17:28	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 17:28	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 17:28	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 17:28	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 17:28	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 17:28	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 17:28	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	108	%	75-125		1		10/13/20 17:28	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/13/20 17:28	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125		1		10/13/20 17:28	460-00-4	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: PZ-13**      **Lab ID: 10534502019**      Collected: 10/05/20 13:40      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 17:46	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 17:46	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 17:46	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 17:46	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 17:46	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 17:46	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 17:46	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 17:46	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	106	%	75-125		1		10/13/20 17:46	17060-07-0	
Toluene-d8 (S)	105	%	75-125		1		10/13/20 17:46	2037-26-5	
4-Bromofluorobenzene (S)	106	%	75-125		1		10/13/20 17:46	460-00-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: MW-14**      **Lab ID: 10534502020**      Collected: 10/05/20 13:50      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 18:22	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 18:22	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 18:22	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 18:22	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 18:22	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 18:22	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 18:22	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 18:22	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	106	%	75-125		1		10/13/20 18:22	17060-07-0	
Toluene-d8 (S)	103	%	75-125		1		10/13/20 18:22	2037-26-5	
4-Bromofluorobenzene (S)	102	%	75-125		1		10/13/20 18:22	460-00-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

**Sample: Trip Blank**      **Lab ID: 10534502021**      Collected: 10/05/20 00:00      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B MSV UST</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Benzene	<0.12	ug/L	0.40	0.12	1		10/13/20 23:06	71-43-2	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/13/20 23:06	100-41-4	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/13/20 23:06	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/13/20 23:06	91-20-3	
Toluene	<0.12	ug/L	0.41	0.12	1		10/13/20 23:06	108-88-3	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/13/20 23:06	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/13/20 23:06	108-67-8	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/13/20 23:06	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	108	%	75-125		1		10/13/20 23:06	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/13/20 23:06	2037-26-5	
4-Bromofluorobenzene (S)	103	%	75-125		1		10/13/20 23:06	460-00-4	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

QC Batch:	704088	Analysis Method:	EPA 8260B
QC Batch Method:	EPA 8260B	Analysis Description:	8260B MSV UST-WATER
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10534502002, 10534502003, 10534502004, 10534502005, 10534502006, 10534502007, 10534502008, 10534502009, 10534502010, 10534502011, 10534502012, 10534502013, 10534502014, 10534502015, 10534502016, 10534502017, 10534502018, 10534502019, 10534502020

METHOD BLANK: 3761522 Matrix: Water

Associated Lab Samples: 10534502002, 10534502003, 10534502004, 10534502005, 10534502006, 10534502007, 10534502008, 10534502009, 10534502010, 10534502011, 10534502012, 10534502013, 10534502014, 10534502015, 10534502016, 10534502017, 10534502018, 10534502019, 10534502020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.17	0.57	10/13/20 12:05	
1,3,5-Trimethylbenzene	ug/L	<0.12	0.41	10/13/20 12:05	
Benzene	ug/L	<0.12	0.40	10/13/20 12:05	
Ethylbenzene	ug/L	<0.075	0.25	10/13/20 12:05	
Methyl-tert-butyl ether	ug/L	<0.12	0.39	10/13/20 12:05	
Naphthalene	ug/L	<0.68	2.3	10/13/20 12:05	
Toluene	ug/L	<0.12	0.41	10/13/20 12:05	
Xylene (Total)	ug/L	<0.29	0.96	10/13/20 12:05	
1,2-Dichloroethane-d4 (S)	%	106	75-125	10/13/20 12:05	
4-Bromofluorobenzene (S)	%	106	75-125	10/13/20 12:05	
Toluene-d8 (S)	%	103	75-125	10/13/20 12:05	

LABORATORY CONTROL SAMPLE: 3761523

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	19.9	99	75-125	
1,3,5-Trimethylbenzene	ug/L	20	20.0	100	75-125	
Benzene	ug/L	20	19.2	96	75-125	
Ethylbenzene	ug/L	20	18.6	93	75-125	
Methyl-tert-butyl ether	ug/L	20	19.4	97	69-125	
Naphthalene	ug/L	20	19.4	97	70-125	
Toluene	ug/L	20	17.9	89	75-125	
Xylene (Total)	ug/L	60	56.8	95	75-125	
1,2-Dichloroethane-d4 (S)	%			110	75-125	
4-Bromofluorobenzene (S)	%			102	75-125	
Toluene-d8 (S)	%			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3763201 3763202

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10534502003 Result	Conc.	Conc.	Conc.								
1,2,4-Trimethylbenzene	ug/L	<0.17	20	20	20	17.6	18.9	88	94	56-139	7	30	
1,3,5-Trimethylbenzene	ug/L	<0.12	20	20	20	17.4	18.5	87	92	63-132	6	30	
Benzene	ug/L	<0.12	20	20	20	17.2	17.0	85	85	63-125	1	30	

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

Parameter	Units	3763201		3763202		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10534502003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Ethylbenzene	ug/L	<0.075	20	20	16.5	17.4	83	87	66-128	5	30		
Methyl-tert-butyl ether	ug/L	<0.12	20	20	16.8	16.9	84	84	60-125	0	30		
Naphthalene	ug/L	<0.68	20	20	17.3	17.7	86	88	55-135	2	30		
Toluene	ug/L	<0.12	20	20	16.2	16.5	81	83	64-125	2	30		
Xylene (Total)	ug/L	<0.29	60	60	50.3	52.2	84	87	64-131	4	30		
1,2-Dichloroethane-d4 (S)	%						106	105	75-125				
4-Bromofluorobenzene (S)	%						100	99	75-125				
Toluene-d8 (S)	%						103	102	75-125				

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW ERP  
Pace Project No.: 10534502

QC Batch: 704174 Analysis Method: EPA 8260B  
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER  
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10534502021

METHOD BLANK: 3762013 Matrix: Water  
Associated Lab Samples: 10534502021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.17	0.57	10/13/20 22:49	
1,3,5-Trimethylbenzene	ug/L	<0.12	0.41	10/13/20 22:49	
Benzene	ug/L	<0.12	0.40	10/13/20 22:49	
Ethylbenzene	ug/L	<0.075	0.25	10/13/20 22:49	
Methyl-tert-butyl ether	ug/L	<0.12	0.39	10/13/20 22:49	
Naphthalene	ug/L	<0.68	2.3	10/13/20 22:49	
Toluene	ug/L	<0.12	0.41	10/13/20 22:49	
Xylene (Total)	ug/L	<0.29	0.96	10/13/20 22:49	
1,2-Dichloroethane-d4 (S)	%	107	75-125	10/13/20 22:49	
4-Bromofluorobenzene (S)	%	103	75-125	10/13/20 22:49	
Toluene-d8 (S)	%	104	75-125	10/13/20 22:49	

LABORATORY CONTROL SAMPLE: 3762014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	21.0	105	75-125	
1,3,5-Trimethylbenzene	ug/L	20	21.3	107	75-125	
Benzene	ug/L	20	20.1	101	75-125	
Ethylbenzene	ug/L	20	20.3	102	75-125	
Methyl-tert-butyl ether	ug/L	20	19.8	99	69-125	
Naphthalene	ug/L	20	20.0	100	70-125	
Toluene	ug/L	20	19.5	98	75-125	
Xylene (Total)	ug/L	60	60.1	100	75-125	
1,2-Dichloroethane-d4 (S)	%			107	75-125	
4-Bromofluorobenzene (S)	%			99	75-125	
Toluene-d8 (S)	%			103	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3763812 3763813

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10535493001 Result	Spike Conc.	Spike Conc.	Conc.								
1,2,4-Trimethylbenzene	ug/L	1.8	20	20	20.3	19.1	93	87	56-139	6	30		
1,3,5-Trimethylbenzene	ug/L	0.40J	20	20	19.0	17.8	93	87	63-132	7	30		
Benzene	ug/L	271	20	20	308	276	186	29	63-125	11	30	E,P6	
Ethylbenzene	ug/L	2.8	20	20	20.9	18.9	90	81	66-128	10	30		
Methyl-tert-butyl ether	ug/L	<0.12	20	20	16.2	15.4	81	77	60-125	5	30		
Naphthalene	ug/L	<0.68	20	20	17.0	16.5	84	82	55-135	3	30		

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

Parameter	Units	3763812		3763813		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		10535493001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Toluene	ug/L	<0.12	20	20	17.6	15.6	88	78	64-125	12	30		
Xylene (Total)	ug/L	2.5	60	60	56.4	51.1	90	81	64-131	10	30		
1,2-Dichloroethane-d4 (S)	%						108	104	75-125				
4-Bromofluorobenzene (S)	%						99	98	75-125				
Toluene-d8 (S)	%						104	102	75-125				

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW ERP  
Pace Project No.: 10534502

QC Batch: 704416 Analysis Method: EPA 8260B  
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER  
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10534502001

METHOD BLANK: 3763318 Matrix: Water  
Associated Lab Samples: 10534502001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.17	0.57	10/14/20 13:46	
1,3,5-Trimethylbenzene	ug/L	<0.12	0.41	10/14/20 13:46	
Benzene	ug/L	<0.12	0.40	10/14/20 13:46	
Ethylbenzene	ug/L	<0.075	0.25	10/14/20 13:46	
Methyl-tert-butyl ether	ug/L	<0.12	0.39	10/14/20 13:46	
Naphthalene	ug/L	<0.68	2.3	10/14/20 13:46	
Toluene	ug/L	<0.12	0.41	10/14/20 13:46	
Xylene (Total)	ug/L	<0.29	0.96	10/14/20 13:46	
1,2-Dichloroethane-d4 (S)	%	101	75-125	10/14/20 13:46	
4-Bromofluorobenzene (S)	%	110	75-125	10/14/20 13:46	
Toluene-d8 (S)	%	100	75-125	10/14/20 13:46	

LABORATORY CONTROL SAMPLE: 3763319

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	19.9	100	75-125	
1,3,5-Trimethylbenzene	ug/L	20	20.2	101	75-125	
Benzene	ug/L	20	17.2	86	75-125	
Ethylbenzene	ug/L	20	19.0	95	75-125	
Methyl-tert-butyl ether	ug/L	20	18.2	91	69-125	
Naphthalene	ug/L	20	20.3	102	70-125	
Toluene	ug/L	20	18.4	92	75-125	
Xylene (Total)	ug/L	60	56.1	94	75-125	
1,2-Dichloroethane-d4 (S)	%			102	75-125	
4-Bromofluorobenzene (S)	%			112	75-125	
Toluene-d8 (S)	%			101	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3764881 3764882

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10535369002	Spike Conc.	Spike Conc.	Conc.								
1,2,4-Trimethylbenzene	ug/L	<0.17	20	20	20	17.1	18.6	85	93	56-139	9	30	
1,3,5-Trimethylbenzene	ug/L	<0.12	20	20	20	17.4	18.9	87	94	63-132	8	30	
Benzene	ug/L	<0.12	20	20	20	15.0	15.0	75	75	63-125	0	30	
Ethylbenzene	ug/L	<0.075	20	20	20	16.6	17.4	83	87	66-128	5	30	
Methyl-tert-butyl ether	ug/L	<0.12	20	20	20	15.8	16.3	79	81	60-125	3	30	
Naphthalene	ug/L	<0.68	20	20	20	16.9	18.6	84	93	55-135	10	30	

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

Parameter	Units	3764881		3764882		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		10535369002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Toluene	ug/L	<0.12	20	20	16.2	16.8	81	84	64-125	3	30		
Xylene (Total)	ug/L	<0.29	60	60	49.3	51.1	82	85	64-131	4	30		
1,2-Dichloroethane-d4 (S)	%						102	103	75-125				
4-Bromofluorobenzene (S)	%						108	109	75-125				
Toluene-d8 (S)	%						100	100	75-125				

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## QUALIFIERS

Project: 49161494.00 200 203 SRC GW ERP

Pace Project No.: 10534502

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### 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.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 49161494.00 200 203 SRC GW ERP  
Pace Project No.: 10534502

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10534502001	PZ-8R	EPA 8260B	704416		
10534502002	MW-15	EPA 8260B	704088		
10534502003	MW-16	EPA 8260B	704088		
10534502004	PZ-16	EPA 8260B	704088		
10534502005	PZ-3D	EPA 8260B	704088		
10534502006	MW-17	EPA 8260B	704088		
10534502007	PZ-17	EPA 8260B	704088		
10534502008	MW-18	EPA 8260B	704088		
10534502009	PZ-2 / T66	EPA 8260B	704088		
10534502010	MW-20	EPA 8260B	704088		
10534502011	PZ-21	EPA 8260B	704088		
10534502012	MW-21	EPA 8260B	704088		
10534502013	MW-22	EPA 8260B	704088		
10534502014	MW-19	EPA 8260B	704088		
10534502015	MW-11	EPA 8260B	704088		
10534502016	PZ-11	EPA 8260B	704088		
10534502017	MW-12	EPA 8260B	704088		
10534502018	MW-13	EPA 8260B	704088		
10534502019	PZ-13	EPA 8260B	704088		
10534502020	MW-14	EPA 8260B	704088		
10534502021	Trip Blank	EPA 8260B	704174		

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# 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.  
 Address: 325 S. Lake Ave.  
 Address: Duluth, MN 55802  
 Name: Lynette Carney  
 email: lcarney@barr.com  
 Copy to: BarrDM@barr.com

Company: Barr  
 Address:   
 Address:   
 Name:   
 email:   
 P.O. ~

Project Name: SRC GW sampling ERP Barr Project No: 49161494.00 200 203

## Analysis Requested

Water Soil

COC Number: **NO 587985**

COC 1 of 3

Matrix Code: Preservative Code:

GW = Groundwater A = None  
 SW = Surface Water B = HCl  
 WW = Waste Water C = HNO<sub>3</sub>  
 DW = Drinking Water D = H<sub>2</sub>SO<sub>4</sub>  
 laOH  
 laHSO<sub>4</sub>  
 a<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
 scorbic Acid  
 Acetate  
 ther

**WO#: 10534502**



Location	Sample Depth		Unit (m./ft. or in.)	Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Perform MS/MSD Y/N	Total Number Of Containers	PVC + Naphtholene
	Start	Stop							
1. PZ-8R				10/05/20	0840	GW	N	3	X
2. MW-15					0915		N	3	X
3. MW-16					0948		N	3	X
4. PZ-16					0952		N	3	X
5. PZ-3D					1012		N	3	X
6. MW-17					1100		N	3	X
7. PZ-17					1105		N	3	X
8. MW-18					1113		N	3	X
9. PZ-2/T66					1122		N	3	X
10. MW-20					1220		N	3	X

Preservative Code

Field Filtered Y/N

001  
002  
003  
004  
005  
006  
007  
008  
009  
010

## BARR USE ONLY

Sampled by: KMTJ  
 Barr Proj. Manager: LMC  
 Barr DQ Manager: JET  
 Lab Name: Pace  
 Lab Location: Minneapolis

Relinquished by: [Signature]

On Ice?  N Date 10/6/20 Time 1312

Received by: [Signature]

Date 1312 Time 10/6/20

Relinquished by: [Signature]

On Ice?  N Date 10/6/20 Time 1400

Received by: [Signature]

Date 1400 Time 1450

Samples Shipped VIA:  Ground Courier  Air Carrier

Air Bill Number: \_\_\_\_\_

Sampler  Other: \_\_\_\_\_

Lab WO: \_\_\_\_\_

Temperature on Receipt (°C): 1.9 Custody Seal Intact?  Y  N  None

Requested Due Date:

Standard Turn Around Time

Rush (mm/dd/yyyy)





# Barr Engineering Co. Chain of Custody

Sample Origination State

CO  MI  MN  MO  ND  TX  UT  WI  Other: \_\_\_\_\_

REPORT TO	INVOICE TO
Company: <i>Barr Engineering Co.</i>	Company: <i>Barr</i>
Address: <i>325 S. Lake Ave</i>	Address:
Address: <i>Duluth, MN 55802</i>	Address:
Name: <i>Lynette Carney</i>	Name:
email: <i>lcarney@barr.com</i>	email:
Copy to: <i>BarrDM@barr.com</i>	P.O. <i>-</i>
Project Name: <i>SCL Gw Sampling ERP</i>	Barr Project No: <i>49161494.00 200 203</i>

Perform	MS/MSD	Y / N	Analysis Requested		% Solids
			Water	Soil	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

COC Number: **№ 587984**  
 COC 3 of 3

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

Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Total Number of Containers	Field Filtered Y/N
	Start	Stop	Unit (m./ft. or in.)					
1. <i>Trip Blank</i>				<i>10/5/20</i>	<i>-</i>	<i>-</i>	<i>2X</i>	<i>OU</i>
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

BARR USE ONLY		Relinquished by:	On Ice?	Date	Time	Received by:	Date	Time
Sampled by: <i>Kmj3</i>		<i>Kevin Monty</i>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>10/6/20</i>	<i>1312</i>	<i>[Signature]</i>	<i>10/6/20</i>	<i>1312</i>
Barr Proj. Manager: <i>LML</i>		<i>[Signature]</i>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>10/6/20</i>	<i>1400</i>	<i>[Signature]</i>	<i>10/6/20</i>	<i>1936</i>
Barr DQ Manager: <i>JET</i>		Samples Shipped VIA: <input type="checkbox"/> Ground Courier <input type="checkbox"/> Air Carrier		Air Bill Number:		Requested Due Date:		
Lab Name: <i>Pace</i>		<input type="checkbox"/> Sampler <input type="checkbox"/> Other: _____		Temperature on Receipt (°C): <i>1.9</i>		<input checked="" type="checkbox"/> Standard Turn Around Time		
Lab Location: <i>Minneapolis</i>		Lab WO:		Custody Seal Intact? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> None		<input type="checkbox"/> Rush _____ (mm/dd/yyyy)		

H:RLG\STD\FORMS\Chain of Custody Form 2015 RLG Rev. 01/30/2020

<b>Sample Condition Upon Receipt</b>	Client Name: <u>Barr</u>	Project #: _____	<b>WO#: 10534502</b> PM: AA1      Due Date: 10/14/20 <b>CLIENT: BARR</b>
Courier:	<input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input checked="" type="checkbox"/> Pace <input type="checkbox"/> SpeeDee <input type="checkbox"/> Commercial	See Exceptions <input type="checkbox"/>	
Tracking Number:	ENV-FRM-MIN4-0142		

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(0489)     
 Type of Ice:  Wet     Blue     None     Dry     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: 1.9 °C     
 Average Corrected Temp (no temp blank only): \_\_\_\_\_ °C  
 Correction Factor: fw     
 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: m 10/6/20  
 Did samples originate in a quarantine zone within the United States: AL, AR, 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 (F-MN-Q-338) and include with SCUR/COC paperwork.**

	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.
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 Chrome <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 Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	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 on Container Below: <input type="checkbox"/> See Exception 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? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> NaOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate
Exceptions: <input checked="" type="checkbox"/> VOA Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Positive for Res. Chlorine? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      See Exception ENV-FRM-MIN4-0142
	pH Paper Lot#
	Res. Chlorine    0-6 Roll    0-6 Strip    0-14 Strip
Extra labels present on soil VOA or WIDRO containers? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> See Exception ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Trip Blank Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
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>273599 (2)</u>

**CLIENT NOTIFICATION/RESOLUTION**      Field Data Required?  Yes  No  
 Person Contacted: \_\_\_\_\_      Date/Time: \_\_\_\_\_  
 Comments/Resolution: \_\_\_\_\_

**Project Manager Review:** \_\_\_\_\_      Date: 10/9/20  
 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).

October 21, 2020

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

RE: Project: 49161494.00 200 203 SRC GW GEM  
Pace Project No.: 10534496

Dear Jim Taraldsen:

Enclosed are the analytical results for sample(s) received by the laboratory on October 06, 2020. 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 - Green Bay
- Pace Analytical Services - Minneapolis

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

Sincerely,



Amanda Albrecht  
amanda.albrecht@pacelabs.com  
(612)607-6382  
Project Manager

Enclosures

cc: BarrDM, Barr Engineering Company  
Data Management, Barr Engineering  
Accounts Payable, Barr Engineering



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

### **Pace Analytical Services - Minneapolis MN**

1700 Elm Street SE, Minneapolis, MN 55414  
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

A2LA Certification #: 2926.01\*  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009\*  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014\*  
Arkansas DW Certification #: MN00064  
Arkansas WW Certification #: 88-0680  
California Certification #: 2929  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605\*  
Georgia Certification #: 959  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: AI-03086\*  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064\*  
Maryland Certification #: 322  
Massachusetts DWP Certification #: via MN 027-053-137  
Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137\*  
Minnesota Dept of Ag Certification #: via MN 027-053-137  
Minnesota Petrofund Certification #: 1240\*

Mississippi Certification #: MN00064  
Missouri Certification #: 10100  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081\*  
New Jersey Certification #: MN002  
New York Certification #: 11647\*  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: 9507\*  
Oregon Primary Certification #: MN300001  
Oregon Secondary Certification #: MN200001\*  
Pennsylvania Certification #: 68-00563\*  
Puerto Rico Certification #: MN00064  
South Carolina Certification #: 74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192\*  
Utah Certification #: MN00064\*  
Vermont Certification #: VT-027053137  
Virginia Certification #: 460163\*  
Washington Certification #: C486\*  
West Virginia DEP Certification #: 382  
West Virginia DW Certification #: 9952 C  
Wisconsin Certification #: 999407970  
Wyoming UST Certification #: via A2LA 2926.01  
USDA Permit #: P330-19-00208  
\*Please Note: Applicable air certifications are denoted with an asterisk (\*).

### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky UST Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
New York Certification #: 12064  
North Dakota Certification #: R-150

Virginia VELAP ID: 460263  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444  
USDA Soil Permit #: P330-16-00157  
Federal Fish & Wildlife Permit #: LE51774A-0

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10534496001	MW-8R	Water	10/05/20 08:55	10/06/20 19:30
10534496002	MW-1	Water	10/05/20 09:35	10/06/20 19:30
10534496003	MW-2	Water	10/05/20 10:05	10/06/20 19:30
10534496004	MW-3D	Water	10/05/20 10:20	10/06/20 19:30
10534496005	MW-9B	Water	10/05/20 10:40	10/06/20 19:30
10534496006	Trip Blank	Water	10/05/20 00:00	10/06/20 19:30

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 49161494.00 200 203 SRC GW GEM  
Pace Project No.: 10534496

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10534496001	MW-8R	EPA 6010	TXW	4	PASI-G
		EPA 8260B	MM3	70	PASI-M
		SM 2320B	AMN	1	PASI-M
10534496002	MW-1	EPA 6010	TXW	4	PASI-G
		EPA 8260B	MM3	70	PASI-M
		SM 2320B	AMN	1	PASI-M
10534496003	MW-2	EPA 6010	TXW	4	PASI-G
		EPA 8260B	MM3	70	PASI-M
		SM 2320B	AMN	1	PASI-M
10534496004	MW-3D	EPA 6010	TXW	4	PASI-G
		EPA 8260B	MM3	70	PASI-M
		SM 2320B	AMN	1	PASI-M
10534496005	MW-9B	EPA 6010	TXW	4	PASI-G
		EPA 8260B	MM3	70	PASI-M
		SM 2320B	AMN	1	PASI-M
10534496006	Trip Blank	EPA 8260B	MM3	70	PASI-M

PASI-G = Pace Analytical Services - Green Bay  
PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-8R**      **Lab ID: 10534496001**      Collected: 10/05/20 08:55      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	<b>95400</b>	ug/L	5000	1690	10		10/20/20 15:25	7440-70-2	
Lead, Dissolved	<b>&lt;6.4</b>	ug/L	20.0	6.4	1		10/20/20 14:51	7439-92-1	
Magnesium, Dissolved	<b>74000</b>	ug/L	10000	1870	10		10/20/20 15:25	7439-95-4	
Total Hardness by 2340B, Dissolved	<b>543000</b>	ug/L	20000	1500	10		10/20/20 15:25		
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Acetone	<b>&lt;2.5</b>	ug/L	8.4	2.5	1		10/08/20 20:44	67-64-1	
Allyl chloride	<b>&lt;0.27</b>	ug/L	0.90	0.27	1		10/08/20 20:44	107-05-1	
Benzene	<b>&lt;0.12</b>	ug/L	0.40	0.12	1		10/08/20 20:44	71-43-2	
Bromobenzene	<b>&lt;0.13</b>	ug/L	0.44	0.13	1		10/08/20 20:44	108-86-1	
Bromochloromethane	<b>&lt;0.36</b>	ug/L	1.2	0.36	1		10/08/20 20:44	74-97-5	
Bromodichloromethane	<b>&lt;0.11</b>	ug/L	0.38	0.11	1		10/08/20 20:44	75-27-4	
Bromoform	<b>&lt;0.27</b>	ug/L	0.90	0.27	1		10/08/20 20:44	75-25-2	
Bromomethane	<b>&lt;0.63</b>	ug/L	2.1	0.63	1		10/08/20 20:44	74-83-9	
2-Butanone (MEK)	<b>&lt;0.88</b>	ug/L	2.9	0.88	1		10/08/20 20:44	78-93-3	
n-Butylbenzene	<b>&lt;0.16</b>	ug/L	0.52	0.16	1		10/08/20 20:44	104-51-8	
sec-Butylbenzene	<b>&lt;0.15</b>	ug/L	0.49	0.15	1		10/08/20 20:44	135-98-8	
tert-Butylbenzene	<b>&lt;0.13</b>	ug/L	0.43	0.13	1		10/08/20 20:44	98-06-6	
Carbon tetrachloride	<b>&lt;0.17</b>	ug/L	0.56	0.17	1		10/08/20 20:44	56-23-5	
Chlorobenzene	<b>&lt;0.076</b>	ug/L	0.25	0.076	1		10/08/20 20:44	108-90-7	
Chloroethane	<b>&lt;0.42</b>	ug/L	1.4	0.42	1		10/08/20 20:44	75-00-3	
Chloroform	<b>&lt;0.48</b>	ug/L	1.6	0.48	1		10/08/20 20:44	67-66-3	
Chloromethane	<b>&lt;0.15</b>	ug/L	0.49	0.15	1		10/08/20 20:44	74-87-3	
2-Chlorotoluene	<b>&lt;0.16</b>	ug/L	0.55	0.16	1		10/08/20 20:44	95-49-8	
4-Chlorotoluene	<b>&lt;0.050</b>	ug/L	0.17	0.050	1		10/08/20 20:44	106-43-4	
1,2-Dibromo-3-chloropropane	<b>&lt;1.2</b>	ug/L	4.2	1.2	1		10/08/20 20:44	96-12-8	
Dibromochloromethane	<b>&lt;0.20</b>	ug/L	0.66	0.20	1		10/08/20 20:44	124-48-1	
1,2-Dibromoethane (EDB)	<b>&lt;0.18</b>	ug/L	0.60	0.18	1		10/08/20 20:44	106-93-4	
Dibromomethane	<b>&lt;0.15</b>	ug/L	0.51	0.15	1		10/08/20 20:44	74-95-3	
1,2-Dichlorobenzene	<b>&lt;0.14</b>	ug/L	0.45	0.14	1		10/08/20 20:44	95-50-1	
1,3-Dichlorobenzene	<b>&lt;0.12</b>	ug/L	0.39	0.12	1		10/08/20 20:44	541-73-1	
1,4-Dichlorobenzene	<b>&lt;0.082</b>	ug/L	0.27	0.082	1		10/08/20 20:44	106-46-7	
Dichlorodifluoromethane	<b>&lt;0.20</b>	ug/L	0.65	0.20	1		10/08/20 20:44	75-71-8	
1,1-Dichloroethane	<b>&lt;0.17</b>	ug/L	0.55	0.17	1		10/08/20 20:44	75-34-3	
1,2-Dichloroethane	<b>&lt;0.25</b>	ug/L	0.85	0.25	1		10/08/20 20:44	107-06-2	
1,1-Dichloroethene	<b>&lt;0.13</b>	ug/L	0.42	0.13	1		10/08/20 20:44	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.20</b>	ug/L	0.66	0.20	1		10/08/20 20:44	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.19</b>	ug/L	0.64	0.19	1		10/08/20 20:44	156-60-5	
Dichlorofluoromethane	<b>&lt;0.19</b>	ug/L	0.63	0.19	1		10/08/20 20:44	75-43-4	
1,2-Dichloropropane	<b>&lt;0.14</b>	ug/L	0.46	0.14	1		10/08/20 20:44	78-87-5	
1,3-Dichloropropane	<b>&lt;0.13</b>	ug/L	0.43	0.13	1		10/08/20 20:44	142-28-9	
2,2-Dichloropropane	<b>&lt;0.20</b>	ug/L	0.66	0.20	1		10/08/20 20:44	594-20-7	
1,1-Dichloropropene	<b>&lt;0.22</b>	ug/L	0.74	0.22	1		10/08/20 20:44	563-58-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-8R**      **Lab ID: 10534496001**      Collected: 10/05/20 08:55      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
cis-1,3-Dichloropropene	<0.077	ug/L	0.26	0.077	1		10/08/20 20:44	10061-01-5	
trans-1,3-Dichloropropene	<0.32	ug/L	1.0	0.32	1		10/08/20 20:44	10061-02-6	
Diethyl ether (Ethyl ether)	<0.18	ug/L	0.58	0.18	1		10/08/20 20:44	60-29-7	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/08/20 20:44	100-41-4	
Hexachloro-1,3-butadiene	<0.40	ug/L	1.3	0.40	1		10/08/20 20:44	87-68-3	
Isopropylbenzene (Cumene)	<0.13	ug/L	0.44	0.13	1		10/08/20 20:44	98-82-8	
p-Isopropyltoluene	<0.18	ug/L	0.59	0.18	1		10/08/20 20:44	99-87-6	
Methylene Chloride	<1.1	ug/L	3.7	1.1	1		10/08/20 20:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.54	ug/L	1.8	0.54	1		10/08/20 20:44	108-10-1	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/08/20 20:44	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/08/20 20:44	91-20-3	
n-Propylbenzene	<0.18	ug/L	0.61	0.18	1		10/08/20 20:44	103-65-1	
Styrene	<0.11	ug/L	0.37	0.11	1		10/08/20 20:44	100-42-5	
1,1,1,2-Tetrachloroethane	<0.13	ug/L	0.44	0.13	1		10/08/20 20:44	630-20-6	
1,1,2,2-Tetrachloroethane	<0.16	ug/L	0.53	0.16	1		10/08/20 20:44	79-34-5	
Tetrachloroethene	<0.17	ug/L	0.58	0.17	1		10/08/20 20:44	127-18-4	
Tetrahydrofuran	<3.4	ug/L	11.3	3.4	1		10/08/20 20:44	109-99-9	
Toluene	<0.12	ug/L	0.41	0.12	1		10/08/20 20:44	108-88-3	
1,2,3-Trichlorobenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 20:44	87-61-6	
1,2,4-Trichlorobenzene	<0.19	ug/L	0.63	0.19	1		10/08/20 20:44	120-82-1	
1,1,1-Trichloroethane	<0.17	ug/L	0.57	0.17	1		10/08/20 20:44	71-55-6	
1,1,2-Trichloroethane	<0.19	ug/L	0.64	0.19	1		10/08/20 20:44	79-00-5	
Trichloroethene	<0.15	ug/L	0.50	0.15	1		10/08/20 20:44	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	0.41	0.12	1		10/08/20 20:44	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	2.0	0.59	1		10/08/20 20:44	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.30	ug/L	1.0	0.30	1		10/08/20 20:44	76-13-1	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 20:44	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/08/20 20:44	108-67-8	
Vinyl chloride	<0.099	ug/L	0.33	0.099	1		10/08/20 20:44	75-01-4	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/08/20 20:44	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	103	%	75-125		1		10/08/20 20:44	17060-07-0	
Toluene-d8 (S)	105	%	75-125		1		10/08/20 20:44	2037-26-5	
4-Bromofluorobenzene (S)	107	%	75-125		1		10/08/20 20:44	460-00-4	

### 2320B Alkalinity

Analytical Method: SM 2320B

Pace Analytical Services - Minneapolis

Alkalinity, Total as CaCO3	<b>546</b>	mg/L	6.7	2.0	1		10/16/20 14:44		
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## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-1**      **Lab ID: 10534496002**      Collected: 10/05/20 09:35      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	<b>46200</b>	ug/L	500	169	1		10/20/20 15:00	7440-70-2	
Lead, Dissolved	<b>&lt;6.4</b>	ug/L	20.0	6.4	1		10/20/20 15:00	7439-92-1	
Magnesium, Dissolved	<b>47600</b>	ug/L	1000	187	1		10/20/20 15:00	7439-95-4	
Total Hardness by 2340B, Dissolved	<b>311000</b>	ug/L	2000	150	1		10/20/20 15:00		
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Acetone	<b>&lt;2.5</b>	ug/L	8.4	2.5	1		10/08/20 21:02	67-64-1	
Allyl chloride	<b>&lt;0.27</b>	ug/L	0.90	0.27	1		10/08/20 21:02	107-05-1	
Benzene	<b>&lt;0.12</b>	ug/L	0.40	0.12	1		10/08/20 21:02	71-43-2	
Bromobenzene	<b>&lt;0.13</b>	ug/L	0.44	0.13	1		10/08/20 21:02	108-86-1	
Bromochloromethane	<b>&lt;0.36</b>	ug/L	1.2	0.36	1		10/08/20 21:02	74-97-5	
Bromodichloromethane	<b>&lt;0.11</b>	ug/L	0.38	0.11	1		10/08/20 21:02	75-27-4	
Bromoform	<b>&lt;0.27</b>	ug/L	0.90	0.27	1		10/08/20 21:02	75-25-2	
Bromomethane	<b>&lt;0.63</b>	ug/L	2.1	0.63	1		10/08/20 21:02	74-83-9	
2-Butanone (MEK)	<b>&lt;0.88</b>	ug/L	2.9	0.88	1		10/08/20 21:02	78-93-3	
n-Butylbenzene	<b>&lt;0.16</b>	ug/L	0.52	0.16	1		10/08/20 21:02	104-51-8	
sec-Butylbenzene	<b>&lt;0.15</b>	ug/L	0.49	0.15	1		10/08/20 21:02	135-98-8	
tert-Butylbenzene	<b>&lt;0.13</b>	ug/L	0.43	0.13	1		10/08/20 21:02	98-06-6	
Carbon tetrachloride	<b>&lt;0.17</b>	ug/L	0.56	0.17	1		10/08/20 21:02	56-23-5	
Chlorobenzene	<b>&lt;0.076</b>	ug/L	0.25	0.076	1		10/08/20 21:02	108-90-7	
Chloroethane	<b>&lt;0.42</b>	ug/L	1.4	0.42	1		10/08/20 21:02	75-00-3	
Chloroform	<b>&lt;0.48</b>	ug/L	1.6	0.48	1		10/08/20 21:02	67-66-3	
Chloromethane	<b>&lt;0.15</b>	ug/L	0.49	0.15	1		10/08/20 21:02	74-87-3	
2-Chlorotoluene	<b>&lt;0.16</b>	ug/L	0.55	0.16	1		10/08/20 21:02	95-49-8	
4-Chlorotoluene	<b>&lt;0.050</b>	ug/L	0.17	0.050	1		10/08/20 21:02	106-43-4	
1,2-Dibromo-3-chloropropane	<b>&lt;1.2</b>	ug/L	4.2	1.2	1		10/08/20 21:02	96-12-8	
Dibromochloromethane	<b>&lt;0.20</b>	ug/L	0.66	0.20	1		10/08/20 21:02	124-48-1	
1,2-Dibromoethane (EDB)	<b>&lt;0.18</b>	ug/L	0.60	0.18	1		10/08/20 21:02	106-93-4	
Dibromomethane	<b>&lt;0.15</b>	ug/L	0.51	0.15	1		10/08/20 21:02	74-95-3	
1,2-Dichlorobenzene	<b>&lt;0.14</b>	ug/L	0.45	0.14	1		10/08/20 21:02	95-50-1	
1,3-Dichlorobenzene	<b>&lt;0.12</b>	ug/L	0.39	0.12	1		10/08/20 21:02	541-73-1	
1,4-Dichlorobenzene	<b>&lt;0.082</b>	ug/L	0.27	0.082	1		10/08/20 21:02	106-46-7	
Dichlorodifluoromethane	<b>&lt;0.20</b>	ug/L	0.65	0.20	1		10/08/20 21:02	75-71-8	
1,1-Dichloroethane	<b>&lt;0.17</b>	ug/L	0.55	0.17	1		10/08/20 21:02	75-34-3	
1,2-Dichloroethane	<b>&lt;0.25</b>	ug/L	0.85	0.25	1		10/08/20 21:02	107-06-2	
1,1-Dichloroethene	<b>&lt;0.13</b>	ug/L	0.42	0.13	1		10/08/20 21:02	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.20</b>	ug/L	0.66	0.20	1		10/08/20 21:02	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.19</b>	ug/L	0.64	0.19	1		10/08/20 21:02	156-60-5	
Dichlorofluoromethane	<b>&lt;0.19</b>	ug/L	0.63	0.19	1		10/08/20 21:02	75-43-4	
1,2-Dichloropropane	<b>&lt;0.14</b>	ug/L	0.46	0.14	1		10/08/20 21:02	78-87-5	
1,3-Dichloropropane	<b>&lt;0.13</b>	ug/L	0.43	0.13	1		10/08/20 21:02	142-28-9	
2,2-Dichloropropane	<b>&lt;0.20</b>	ug/L	0.66	0.20	1		10/08/20 21:02	594-20-7	
1,1-Dichloropropene	<b>&lt;0.22</b>	ug/L	0.74	0.22	1		10/08/20 21:02	563-58-6	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-1**      **Lab ID: 10534496002**      Collected: 10/05/20 09:35      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
cis-1,3-Dichloropropene	<0.077	ug/L	0.26	0.077	1		10/08/20 21:02	10061-01-5	
trans-1,3-Dichloropropene	<0.32	ug/L	1.0	0.32	1		10/08/20 21:02	10061-02-6	
Diethyl ether (Ethyl ether)	<0.18	ug/L	0.58	0.18	1		10/08/20 21:02	60-29-7	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/08/20 21:02	100-41-4	
Hexachloro-1,3-butadiene	<0.40	ug/L	1.3	0.40	1		10/08/20 21:02	87-68-3	
Isopropylbenzene (Cumene)	<0.13	ug/L	0.44	0.13	1		10/08/20 21:02	98-82-8	
p-Isopropyltoluene	<0.18	ug/L	0.59	0.18	1		10/08/20 21:02	99-87-6	
Methylene Chloride	<1.1	ug/L	3.7	1.1	1		10/08/20 21:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.54	ug/L	1.8	0.54	1		10/08/20 21:02	108-10-1	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/08/20 21:02	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/08/20 21:02	91-20-3	
n-Propylbenzene	<0.18	ug/L	0.61	0.18	1		10/08/20 21:02	103-65-1	
Styrene	<0.11	ug/L	0.37	0.11	1		10/08/20 21:02	100-42-5	
1,1,1,2-Tetrachloroethane	<0.13	ug/L	0.44	0.13	1		10/08/20 21:02	630-20-6	
1,1,2,2-Tetrachloroethane	<0.16	ug/L	0.53	0.16	1		10/08/20 21:02	79-34-5	
Tetrachloroethene	<0.17	ug/L	0.58	0.17	1		10/08/20 21:02	127-18-4	
Tetrahydrofuran	<3.4	ug/L	11.3	3.4	1		10/08/20 21:02	109-99-9	
Toluene	<0.12	ug/L	0.41	0.12	1		10/08/20 21:02	108-88-3	
1,2,3-Trichlorobenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 21:02	87-61-6	
1,2,4-Trichlorobenzene	<0.19	ug/L	0.63	0.19	1		10/08/20 21:02	120-82-1	
1,1,1-Trichloroethane	<0.17	ug/L	0.57	0.17	1		10/08/20 21:02	71-55-6	
1,1,2-Trichloroethane	<0.19	ug/L	0.64	0.19	1		10/08/20 21:02	79-00-5	
Trichloroethene	<0.15	ug/L	0.50	0.15	1		10/08/20 21:02	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	0.41	0.12	1		10/08/20 21:02	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	2.0	0.59	1		10/08/20 21:02	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.30	ug/L	1.0	0.30	1		10/08/20 21:02	76-13-1	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 21:02	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/08/20 21:02	108-67-8	
Vinyl chloride	<0.099	ug/L	0.33	0.099	1		10/08/20 21:02	75-01-4	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/08/20 21:02	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	105	%	75-125		1		10/08/20 21:02	17060-07-0	
Toluene-d8 (S)	105	%	75-125		1		10/08/20 21:02	2037-26-5	
4-Bromofluorobenzene (S)	105	%	75-125		1		10/08/20 21:02	460-00-4	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	368	mg/L	6.7	2.0	1		10/16/20 14:54		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-2**      **Lab ID: 10534496003**      Collected: 10/05/20 10:05      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	51100	ug/L	500	169	1		10/20/20 15:05	7440-70-2	
Lead, Dissolved	<6.4	ug/L	20.0	6.4	1		10/20/20 15:05	7439-92-1	
Magnesium, Dissolved	62400	ug/L	1000	187	1		10/20/20 15:05	7439-95-4	
Total Hardness by 2340B, Dissolved	385000	ug/L	2000	150	1		10/20/20 15:05		
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Acetone	<2.5	ug/L	8.4	2.5	1		10/08/20 21:20	67-64-1	
Allyl chloride	<0.27	ug/L	0.90	0.27	1		10/08/20 21:20	107-05-1	
Benzene	<0.12	ug/L	0.40	0.12	1		10/08/20 21:20	71-43-2	
Bromobenzene	<0.13	ug/L	0.44	0.13	1		10/08/20 21:20	108-86-1	
Bromochloromethane	<0.36	ug/L	1.2	0.36	1		10/08/20 21:20	74-97-5	
Bromodichloromethane	<0.11	ug/L	0.38	0.11	1		10/08/20 21:20	75-27-4	
Bromoform	<0.27	ug/L	0.90	0.27	1		10/08/20 21:20	75-25-2	
Bromomethane	<0.63	ug/L	2.1	0.63	1		10/08/20 21:20	74-83-9	
2-Butanone (MEK)	<0.88	ug/L	2.9	0.88	1		10/08/20 21:20	78-93-3	
n-Butylbenzene	<0.16	ug/L	0.52	0.16	1		10/08/20 21:20	104-51-8	
sec-Butylbenzene	<0.15	ug/L	0.49	0.15	1		10/08/20 21:20	135-98-8	
tert-Butylbenzene	<0.13	ug/L	0.43	0.13	1		10/08/20 21:20	98-06-6	
Carbon tetrachloride	<0.17	ug/L	0.56	0.17	1		10/08/20 21:20	56-23-5	
Chlorobenzene	<0.076	ug/L	0.25	0.076	1		10/08/20 21:20	108-90-7	
Chloroethane	<0.42	ug/L	1.4	0.42	1		10/08/20 21:20	75-00-3	
Chloroform	<0.48	ug/L	1.6	0.48	1		10/08/20 21:20	67-66-3	
Chloromethane	<0.15	ug/L	0.49	0.15	1		10/08/20 21:20	74-87-3	
2-Chlorotoluene	<0.16	ug/L	0.55	0.16	1		10/08/20 21:20	95-49-8	
4-Chlorotoluene	<0.050	ug/L	0.17	0.050	1		10/08/20 21:20	106-43-4	
1,2-Dibromo-3-chloropropane	<1.2	ug/L	4.2	1.2	1		10/08/20 21:20	96-12-8	
Dibromochloromethane	<0.20	ug/L	0.66	0.20	1		10/08/20 21:20	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	0.60	0.18	1		10/08/20 21:20	106-93-4	
Dibromomethane	<0.15	ug/L	0.51	0.15	1		10/08/20 21:20	74-95-3	
1,2-Dichlorobenzene	<0.14	ug/L	0.45	0.14	1		10/08/20 21:20	95-50-1	
1,3-Dichlorobenzene	<0.12	ug/L	0.39	0.12	1		10/08/20 21:20	541-73-1	
1,4-Dichlorobenzene	<0.082	ug/L	0.27	0.082	1		10/08/20 21:20	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	0.65	0.20	1		10/08/20 21:20	75-71-8	
1,1-Dichloroethane	<0.17	ug/L	0.55	0.17	1		10/08/20 21:20	75-34-3	
1,2-Dichloroethane	<0.25	ug/L	0.85	0.25	1		10/08/20 21:20	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	0.42	0.13	1		10/08/20 21:20	75-35-4	
cis-1,2-Dichloroethene	<0.20	ug/L	0.66	0.20	1		10/08/20 21:20	156-59-2	
trans-1,2-Dichloroethene	<0.19	ug/L	0.64	0.19	1		10/08/20 21:20	156-60-5	
Dichlorofluoromethane	<0.19	ug/L	0.63	0.19	1		10/08/20 21:20	75-43-4	
1,2-Dichloropropane	<0.14	ug/L	0.46	0.14	1		10/08/20 21:20	78-87-5	
1,3-Dichloropropane	<0.13	ug/L	0.43	0.13	1		10/08/20 21:20	142-28-9	
2,2-Dichloropropane	<0.20	ug/L	0.66	0.20	1		10/08/20 21:20	594-20-7	
1,1-Dichloropropene	<0.22	ug/L	0.74	0.22	1		10/08/20 21:20	563-58-6	

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-2**      **Lab ID: 10534496003**      Collected: 10/05/20 10:05      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
cis-1,3-Dichloropropene	<0.077	ug/L	0.26	0.077	1		10/08/20 21:20	10061-01-5	
trans-1,3-Dichloropropene	<0.32	ug/L	1.0	0.32	1		10/08/20 21:20	10061-02-6	
Diethyl ether (Ethyl ether)	<0.18	ug/L	0.58	0.18	1		10/08/20 21:20	60-29-7	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/08/20 21:20	100-41-4	
Hexachloro-1,3-butadiene	<0.40	ug/L	1.3	0.40	1		10/08/20 21:20	87-68-3	
Isopropylbenzene (Cumene)	<0.13	ug/L	0.44	0.13	1		10/08/20 21:20	98-82-8	
p-Isopropyltoluene	<0.18	ug/L	0.59	0.18	1		10/08/20 21:20	99-87-6	
Methylene Chloride	<1.1	ug/L	3.7	1.1	1		10/08/20 21:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.54	ug/L	1.8	0.54	1		10/08/20 21:20	108-10-1	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/08/20 21:20	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/08/20 21:20	91-20-3	
n-Propylbenzene	<0.18	ug/L	0.61	0.18	1		10/08/20 21:20	103-65-1	
Styrene	<0.11	ug/L	0.37	0.11	1		10/08/20 21:20	100-42-5	
1,1,1,2-Tetrachloroethane	<0.13	ug/L	0.44	0.13	1		10/08/20 21:20	630-20-6	
1,1,2,2-Tetrachloroethane	<0.16	ug/L	0.53	0.16	1		10/08/20 21:20	79-34-5	
Tetrachloroethene	<0.17	ug/L	0.58	0.17	1		10/08/20 21:20	127-18-4	
Tetrahydrofuran	<3.4	ug/L	11.3	3.4	1		10/08/20 21:20	109-99-9	
Toluene	<0.12	ug/L	0.41	0.12	1		10/08/20 21:20	108-88-3	
1,2,3-Trichlorobenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 21:20	87-61-6	
1,2,4-Trichlorobenzene	<0.19	ug/L	0.63	0.19	1		10/08/20 21:20	120-82-1	
1,1,1-Trichloroethane	<0.17	ug/L	0.57	0.17	1		10/08/20 21:20	71-55-6	
1,1,2-Trichloroethane	<0.19	ug/L	0.64	0.19	1		10/08/20 21:20	79-00-5	
Trichloroethene	<0.15	ug/L	0.50	0.15	1		10/08/20 21:20	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	0.41	0.12	1		10/08/20 21:20	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	2.0	0.59	1		10/08/20 21:20	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.30	ug/L	1.0	0.30	1		10/08/20 21:20	76-13-1	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 21:20	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/08/20 21:20	108-67-8	
Vinyl chloride	<0.099	ug/L	0.33	0.099	1		10/08/20 21:20	75-01-4	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/08/20 21:20	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	107	%	75-125		1		10/08/20 21:20	17060-07-0	
Toluene-d8 (S)	105	%	75-125		1		10/08/20 21:20	2037-26-5	
4-Bromofluorobenzene (S)	102	%	75-125		1		10/08/20 21:20	460-00-4	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	418	mg/L	6.7	2.0	1		10/16/20 15:02		

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-3D**      **Lab ID: 10534496004**      Collected: 10/05/20 10:20      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	52400	ug/L	500	169	1		10/20/20 15:12	7440-70-2	
Lead, Dissolved	<6.4	ug/L	20.0	6.4	1		10/20/20 15:12	7439-92-1	
Magnesium, Dissolved	61700	ug/L	1000	187	1		10/20/20 15:12	7439-95-4	
Total Hardness by 2340B, Dissolved	385000	ug/L	2000	150	1		10/20/20 15:12		
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Acetone	<2.5	ug/L	8.4	2.5	1		10/08/20 21:37	67-64-1	
Allyl chloride	<0.27	ug/L	0.90	0.27	1		10/08/20 21:37	107-05-1	
Benzene	<0.12	ug/L	0.40	0.12	1		10/08/20 21:37	71-43-2	
Bromobenzene	<0.13	ug/L	0.44	0.13	1		10/08/20 21:37	108-86-1	
Bromochloromethane	<0.36	ug/L	1.2	0.36	1		10/08/20 21:37	74-97-5	
Bromodichloromethane	<0.11	ug/L	0.38	0.11	1		10/08/20 21:37	75-27-4	
Bromoform	<0.27	ug/L	0.90	0.27	1		10/08/20 21:37	75-25-2	
Bromomethane	<0.63	ug/L	2.1	0.63	1		10/08/20 21:37	74-83-9	
2-Butanone (MEK)	<0.88	ug/L	2.9	0.88	1		10/08/20 21:37	78-93-3	
n-Butylbenzene	<0.16	ug/L	0.52	0.16	1		10/08/20 21:37	104-51-8	
sec-Butylbenzene	<0.15	ug/L	0.49	0.15	1		10/08/20 21:37	135-98-8	
tert-Butylbenzene	<0.13	ug/L	0.43	0.13	1		10/08/20 21:37	98-06-6	
Carbon tetrachloride	<0.17	ug/L	0.56	0.17	1		10/08/20 21:37	56-23-5	
Chlorobenzene	<0.076	ug/L	0.25	0.076	1		10/08/20 21:37	108-90-7	
Chloroethane	<0.42	ug/L	1.4	0.42	1		10/08/20 21:37	75-00-3	
Chloroform	<0.48	ug/L	1.6	0.48	1		10/08/20 21:37	67-66-3	
Chloromethane	<0.15	ug/L	0.49	0.15	1		10/08/20 21:37	74-87-3	
2-Chlorotoluene	<0.16	ug/L	0.55	0.16	1		10/08/20 21:37	95-49-8	
4-Chlorotoluene	<0.050	ug/L	0.17	0.050	1		10/08/20 21:37	106-43-4	
1,2-Dibromo-3-chloropropane	<1.2	ug/L	4.2	1.2	1		10/08/20 21:37	96-12-8	
Dibromochloromethane	<0.20	ug/L	0.66	0.20	1		10/08/20 21:37	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	0.60	0.18	1		10/08/20 21:37	106-93-4	
Dibromomethane	<0.15	ug/L	0.51	0.15	1		10/08/20 21:37	74-95-3	
1,2-Dichlorobenzene	<0.14	ug/L	0.45	0.14	1		10/08/20 21:37	95-50-1	
1,3-Dichlorobenzene	<0.12	ug/L	0.39	0.12	1		10/08/20 21:37	541-73-1	
1,4-Dichlorobenzene	<0.082	ug/L	0.27	0.082	1		10/08/20 21:37	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	0.65	0.20	1		10/08/20 21:37	75-71-8	
1,1-Dichloroethane	<0.17	ug/L	0.55	0.17	1		10/08/20 21:37	75-34-3	
1,2-Dichloroethane	<0.25	ug/L	0.85	0.25	1		10/08/20 21:37	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	0.42	0.13	1		10/08/20 21:37	75-35-4	
cis-1,2-Dichloroethene	<0.20	ug/L	0.66	0.20	1		10/08/20 21:37	156-59-2	
trans-1,2-Dichloroethene	<0.19	ug/L	0.64	0.19	1		10/08/20 21:37	156-60-5	
Dichlorofluoromethane	<0.19	ug/L	0.63	0.19	1		10/08/20 21:37	75-43-4	
1,2-Dichloropropane	<0.14	ug/L	0.46	0.14	1		10/08/20 21:37	78-87-5	
1,3-Dichloropropane	<0.13	ug/L	0.43	0.13	1		10/08/20 21:37	142-28-9	
2,2-Dichloropropane	<0.20	ug/L	0.66	0.20	1		10/08/20 21:37	594-20-7	
1,1-Dichloropropene	<0.22	ug/L	0.74	0.22	1		10/08/20 21:37	563-58-6	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-3D**      **Lab ID: 10534496004**      Collected: 10/05/20 10:20      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
cis-1,3-Dichloropropene	<0.077	ug/L	0.26	0.077	1		10/08/20 21:37	10061-01-5	
trans-1,3-Dichloropropene	<0.32	ug/L	1.0	0.32	1		10/08/20 21:37	10061-02-6	
Diethyl ether (Ethyl ether)	<0.18	ug/L	0.58	0.18	1		10/08/20 21:37	60-29-7	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/08/20 21:37	100-41-4	
Hexachloro-1,3-butadiene	<0.40	ug/L	1.3	0.40	1		10/08/20 21:37	87-68-3	
Isopropylbenzene (Cumene)	<0.13	ug/L	0.44	0.13	1		10/08/20 21:37	98-82-8	
p-Isopropyltoluene	<0.18	ug/L	0.59	0.18	1		10/08/20 21:37	99-87-6	
Methylene Chloride	<1.1	ug/L	3.7	1.1	1		10/08/20 21:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.54	ug/L	1.8	0.54	1		10/08/20 21:37	108-10-1	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/08/20 21:37	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/08/20 21:37	91-20-3	
n-Propylbenzene	<0.18	ug/L	0.61	0.18	1		10/08/20 21:37	103-65-1	
Styrene	<0.11	ug/L	0.37	0.11	1		10/08/20 21:37	100-42-5	
1,1,1,2-Tetrachloroethane	<0.13	ug/L	0.44	0.13	1		10/08/20 21:37	630-20-6	
1,1,2,2-Tetrachloroethane	<0.16	ug/L	0.53	0.16	1		10/08/20 21:37	79-34-5	
Tetrachloroethene	<0.17	ug/L	0.58	0.17	1		10/08/20 21:37	127-18-4	
Tetrahydrofuran	<3.4	ug/L	11.3	3.4	1		10/08/20 21:37	109-99-9	
Toluene	<0.12	ug/L	0.41	0.12	1		10/08/20 21:37	108-88-3	
1,2,3-Trichlorobenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 21:37	87-61-6	
1,2,4-Trichlorobenzene	<0.19	ug/L	0.63	0.19	1		10/08/20 21:37	120-82-1	
1,1,1-Trichloroethane	<0.17	ug/L	0.57	0.17	1		10/08/20 21:37	71-55-6	
1,1,2-Trichloroethane	<0.19	ug/L	0.64	0.19	1		10/08/20 21:37	79-00-5	
Trichloroethene	<0.15	ug/L	0.50	0.15	1		10/08/20 21:37	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	0.41	0.12	1		10/08/20 21:37	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	2.0	0.59	1		10/08/20 21:37	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.30	ug/L	1.0	0.30	1		10/08/20 21:37	76-13-1	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 21:37	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/08/20 21:37	108-67-8	
Vinyl chloride	<0.099	ug/L	0.33	0.099	1		10/08/20 21:37	75-01-4	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/08/20 21:37	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	106	%	75-125		1		10/08/20 21:37	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/08/20 21:37	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125		1		10/08/20 21:37	460-00-4	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	385	mg/L	6.7	2.0	1		10/16/20 15:26		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-9B**      **Lab ID: 10534496005**      Collected: 10/05/20 10:40      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	50500	ug/L	500	169	1		10/20/20 15:15	7440-70-2	
Lead, Dissolved	<6.4	ug/L	20.0	6.4	1		10/20/20 15:15	7439-92-1	
Magnesium, Dissolved	71800	ug/L	1000	187	1		10/20/20 15:15	7439-95-4	
Total Hardness by 2340B, Dissolved	422000	ug/L	2000	150	1		10/20/20 15:15		
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Acetone	<2.5	ug/L	8.4	2.5	1		10/08/20 21:55	67-64-1	
Allyl chloride	<0.27	ug/L	0.90	0.27	1		10/08/20 21:55	107-05-1	
Benzene	<0.12	ug/L	0.40	0.12	1		10/08/20 21:55	71-43-2	
Bromobenzene	<0.13	ug/L	0.44	0.13	1		10/08/20 21:55	108-86-1	
Bromochloromethane	<0.36	ug/L	1.2	0.36	1		10/08/20 21:55	74-97-5	
Bromodichloromethane	<0.11	ug/L	0.38	0.11	1		10/08/20 21:55	75-27-4	
Bromoform	<0.27	ug/L	0.90	0.27	1		10/08/20 21:55	75-25-2	
Bromomethane	<0.63	ug/L	2.1	0.63	1		10/08/20 21:55	74-83-9	
2-Butanone (MEK)	<0.88	ug/L	2.9	0.88	1		10/08/20 21:55	78-93-3	
n-Butylbenzene	<0.16	ug/L	0.52	0.16	1		10/08/20 21:55	104-51-8	
sec-Butylbenzene	<0.15	ug/L	0.49	0.15	1		10/08/20 21:55	135-98-8	
tert-Butylbenzene	<0.13	ug/L	0.43	0.13	1		10/08/20 21:55	98-06-6	
Carbon tetrachloride	<0.17	ug/L	0.56	0.17	1		10/08/20 21:55	56-23-5	
Chlorobenzene	<0.076	ug/L	0.25	0.076	1		10/08/20 21:55	108-90-7	
Chloroethane	<0.42	ug/L	1.4	0.42	1		10/08/20 21:55	75-00-3	
Chloroform	<0.48	ug/L	1.6	0.48	1		10/08/20 21:55	67-66-3	
Chloromethane	<0.15	ug/L	0.49	0.15	1		10/08/20 21:55	74-87-3	
2-Chlorotoluene	<0.16	ug/L	0.55	0.16	1		10/08/20 21:55	95-49-8	
4-Chlorotoluene	<0.050	ug/L	0.17	0.050	1		10/08/20 21:55	106-43-4	
1,2-Dibromo-3-chloropropane	<1.2	ug/L	4.2	1.2	1		10/08/20 21:55	96-12-8	
Dibromochloromethane	<0.20	ug/L	0.66	0.20	1		10/08/20 21:55	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	0.60	0.18	1		10/08/20 21:55	106-93-4	
Dibromomethane	<0.15	ug/L	0.51	0.15	1		10/08/20 21:55	74-95-3	
1,2-Dichlorobenzene	<0.14	ug/L	0.45	0.14	1		10/08/20 21:55	95-50-1	
1,3-Dichlorobenzene	<0.12	ug/L	0.39	0.12	1		10/08/20 21:55	541-73-1	
1,4-Dichlorobenzene	<0.082	ug/L	0.27	0.082	1		10/08/20 21:55	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	0.65	0.20	1		10/08/20 21:55	75-71-8	
1,1-Dichloroethane	<0.17	ug/L	0.55	0.17	1		10/08/20 21:55	75-34-3	
1,2-Dichloroethane	<0.25	ug/L	0.85	0.25	1		10/08/20 21:55	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	0.42	0.13	1		10/08/20 21:55	75-35-4	
cis-1,2-Dichloroethene	<0.20	ug/L	0.66	0.20	1		10/08/20 21:55	156-59-2	
trans-1,2-Dichloroethene	<0.19	ug/L	0.64	0.19	1		10/08/20 21:55	156-60-5	
Dichlorofluoromethane	<0.19	ug/L	0.63	0.19	1		10/08/20 21:55	75-43-4	
1,2-Dichloropropane	<0.14	ug/L	0.46	0.14	1		10/08/20 21:55	78-87-5	
1,3-Dichloropropane	<0.13	ug/L	0.43	0.13	1		10/08/20 21:55	142-28-9	
2,2-Dichloropropane	<0.20	ug/L	0.66	0.20	1		10/08/20 21:55	594-20-7	
1,1-Dichloropropene	<0.22	ug/L	0.74	0.22	1		10/08/20 21:55	563-58-6	

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: MW-9B**      **Lab ID: 10534496005**      Collected: 10/05/20 10:40      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
cis-1,3-Dichloropropene	<0.077	ug/L	0.26	0.077	1		10/08/20 21:55	10061-01-5	
trans-1,3-Dichloropropene	<0.32	ug/L	1.0	0.32	1		10/08/20 21:55	10061-02-6	
Diethyl ether (Ethyl ether)	<0.18	ug/L	0.58	0.18	1		10/08/20 21:55	60-29-7	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/08/20 21:55	100-41-4	
Hexachloro-1,3-butadiene	<0.40	ug/L	1.3	0.40	1		10/08/20 21:55	87-68-3	
Isopropylbenzene (Cumene)	<0.13	ug/L	0.44	0.13	1		10/08/20 21:55	98-82-8	
p-Isopropyltoluene	<0.18	ug/L	0.59	0.18	1		10/08/20 21:55	99-87-6	
Methylene Chloride	<1.1	ug/L	3.7	1.1	1		10/08/20 21:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.54	ug/L	1.8	0.54	1		10/08/20 21:55	108-10-1	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/08/20 21:55	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/08/20 21:55	91-20-3	
n-Propylbenzene	<0.18	ug/L	0.61	0.18	1		10/08/20 21:55	103-65-1	
Styrene	<0.11	ug/L	0.37	0.11	1		10/08/20 21:55	100-42-5	
1,1,1,2-Tetrachloroethane	<0.13	ug/L	0.44	0.13	1		10/08/20 21:55	630-20-6	
1,1,2,2-Tetrachloroethane	<0.16	ug/L	0.53	0.16	1		10/08/20 21:55	79-34-5	
Tetrachloroethene	<0.17	ug/L	0.58	0.17	1		10/08/20 21:55	127-18-4	
Tetrahydrofuran	<3.4	ug/L	11.3	3.4	1		10/08/20 21:55	109-99-9	
Toluene	<0.12	ug/L	0.41	0.12	1		10/08/20 21:55	108-88-3	
1,2,3-Trichlorobenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 21:55	87-61-6	
1,2,4-Trichlorobenzene	<0.19	ug/L	0.63	0.19	1		10/08/20 21:55	120-82-1	
1,1,1-Trichloroethane	<0.17	ug/L	0.57	0.17	1		10/08/20 21:55	71-55-6	
1,1,2-Trichloroethane	<0.19	ug/L	0.64	0.19	1		10/08/20 21:55	79-00-5	
Trichloroethene	<0.15	ug/L	0.50	0.15	1		10/08/20 21:55	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	0.41	0.12	1		10/08/20 21:55	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	2.0	0.59	1		10/08/20 21:55	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.30	ug/L	1.0	0.30	1		10/08/20 21:55	76-13-1	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 21:55	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/08/20 21:55	108-67-8	
Vinyl chloride	<0.099	ug/L	0.33	0.099	1		10/08/20 21:55	75-01-4	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/08/20 21:55	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	105	%	75-125		1		10/08/20 21:55	17060-07-0	
Toluene-d8 (S)	105	%	75-125		1		10/08/20 21:55	2037-26-5	
4-Bromofluorobenzene (S)	102	%	75-125		1		10/08/20 21:55	460-00-4	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	444	mg/L	6.7	2.0	1		10/16/20 15:35		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: Trip Blank**      **Lab ID: 10534496006**      Collected: 10/05/20 00:00      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
Acetone	<2.5	ug/L	8.4	2.5	1		10/08/20 18:57	67-64-1	
Allyl chloride	<0.27	ug/L	0.90	0.27	1		10/08/20 18:57	107-05-1	
Benzene	<0.12	ug/L	0.40	0.12	1		10/08/20 18:57	71-43-2	
Bromobenzene	<0.13	ug/L	0.44	0.13	1		10/08/20 18:57	108-86-1	
Bromochloromethane	<0.36	ug/L	1.2	0.36	1		10/08/20 18:57	74-97-5	
Bromodichloromethane	<0.11	ug/L	0.38	0.11	1		10/08/20 18:57	75-27-4	
Bromoform	<0.27	ug/L	0.90	0.27	1		10/08/20 18:57	75-25-2	
Bromomethane	<0.63	ug/L	2.1	0.63	1		10/08/20 18:57	74-83-9	
2-Butanone (MEK)	<0.88	ug/L	2.9	0.88	1		10/08/20 18:57	78-93-3	
n-Butylbenzene	<0.16	ug/L	0.52	0.16	1		10/08/20 18:57	104-51-8	
sec-Butylbenzene	<0.15	ug/L	0.49	0.15	1		10/08/20 18:57	135-98-8	
tert-Butylbenzene	<0.13	ug/L	0.43	0.13	1		10/08/20 18:57	98-06-6	
Carbon tetrachloride	<0.17	ug/L	0.56	0.17	1		10/08/20 18:57	56-23-5	
Chlorobenzene	<0.076	ug/L	0.25	0.076	1		10/08/20 18:57	108-90-7	
Chloroethane	<0.42	ug/L	1.4	0.42	1		10/08/20 18:57	75-00-3	
Chloroform	<0.48	ug/L	1.6	0.48	1		10/08/20 18:57	67-66-3	
Chloromethane	<0.15	ug/L	0.49	0.15	1		10/08/20 18:57	74-87-3	
2-Chlorotoluene	<0.16	ug/L	0.55	0.16	1		10/08/20 18:57	95-49-8	
4-Chlorotoluene	<0.050	ug/L	0.17	0.050	1		10/08/20 18:57	106-43-4	
1,2-Dibromo-3-chloropropane	<1.2	ug/L	4.2	1.2	1		10/08/20 18:57	96-12-8	
Dibromochloromethane	<0.20	ug/L	0.66	0.20	1		10/08/20 18:57	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	0.60	0.18	1		10/08/20 18:57	106-93-4	
Dibromomethane	<0.15	ug/L	0.51	0.15	1		10/08/20 18:57	74-95-3	
1,2-Dichlorobenzene	<0.14	ug/L	0.45	0.14	1		10/08/20 18:57	95-50-1	
1,3-Dichlorobenzene	<0.12	ug/L	0.39	0.12	1		10/08/20 18:57	541-73-1	
1,4-Dichlorobenzene	<0.082	ug/L	0.27	0.082	1		10/08/20 18:57	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	0.65	0.20	1		10/08/20 18:57	75-71-8	
1,1-Dichloroethane	<0.17	ug/L	0.55	0.17	1		10/08/20 18:57	75-34-3	
1,2-Dichloroethane	<0.25	ug/L	0.85	0.25	1		10/08/20 18:57	107-06-2	
1,1-Dichloroethene	<0.13	ug/L	0.42	0.13	1		10/08/20 18:57	75-35-4	
cis-1,2-Dichloroethene	<0.20	ug/L	0.66	0.20	1		10/08/20 18:57	156-59-2	
trans-1,2-Dichloroethene	<0.19	ug/L	0.64	0.19	1		10/08/20 18:57	156-60-5	
Dichlorofluoromethane	<0.19	ug/L	0.63	0.19	1		10/08/20 18:57	75-43-4	
1,2-Dichloropropane	<0.14	ug/L	0.46	0.14	1		10/08/20 18:57	78-87-5	
1,3-Dichloropropane	<0.13	ug/L	0.43	0.13	1		10/08/20 18:57	142-28-9	
2,2-Dichloropropane	<0.20	ug/L	0.66	0.20	1		10/08/20 18:57	594-20-7	
1,1-Dichloropropene	<0.22	ug/L	0.74	0.22	1		10/08/20 18:57	563-58-6	
cis-1,3-Dichloropropene	<0.077	ug/L	0.26	0.077	1		10/08/20 18:57	10061-01-5	
trans-1,3-Dichloropropene	<0.32	ug/L	1.0	0.32	1		10/08/20 18:57	10061-02-6	
Diethyl ether (Ethyl ether)	<0.18	ug/L	0.58	0.18	1		10/08/20 18:57	60-29-7	
Ethylbenzene	<0.075	ug/L	0.25	0.075	1		10/08/20 18:57	100-41-4	
Hexachloro-1,3-butadiene	<0.40	ug/L	1.3	0.40	1		10/08/20 18:57	87-68-3	
Isopropylbenzene (Cumene)	<0.13	ug/L	0.44	0.13	1		10/08/20 18:57	98-82-8	
p-Isopropyltoluene	<0.18	ug/L	0.59	0.18	1		10/08/20 18:57	99-87-6	
Methylene Chloride	3.4J	ug/L	3.7	1.1	1		10/08/20 18:57	75-09-2	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

**Sample: Trip Blank**      **Lab ID: 10534496006**      Collected: 10/05/20 00:00      Received: 10/06/20 19:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260B VOC</b>									
Analytical Method: EPA 8260B									
Pace Analytical Services - Minneapolis									
4-Methyl-2-pentanone (MIBK)	<0.54	ug/L	1.8	0.54	1		10/08/20 18:57	108-10-1	
Methyl-tert-butyl ether	<0.12	ug/L	0.39	0.12	1		10/08/20 18:57	1634-04-4	
Naphthalene	<0.68	ug/L	2.3	0.68	1		10/08/20 18:57	91-20-3	
n-Propylbenzene	<0.18	ug/L	0.61	0.18	1		10/08/20 18:57	103-65-1	
Styrene	<0.11	ug/L	0.37	0.11	1		10/08/20 18:57	100-42-5	
1,1,1,2-Tetrachloroethane	<0.13	ug/L	0.44	0.13	1		10/08/20 18:57	630-20-6	
1,1,2,2-Tetrachloroethane	<0.16	ug/L	0.53	0.16	1		10/08/20 18:57	79-34-5	
Tetrachloroethene	<0.17	ug/L	0.58	0.17	1		10/08/20 18:57	127-18-4	
Tetrahydrofuran	<3.4	ug/L	11.3	3.4	1		10/08/20 18:57	109-99-9	
Toluene	<0.12	ug/L	0.41	0.12	1		10/08/20 18:57	108-88-3	
1,2,3-Trichlorobenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 18:57	87-61-6	
1,2,4-Trichlorobenzene	<0.19	ug/L	0.63	0.19	1		10/08/20 18:57	120-82-1	
1,1,1-Trichloroethane	<0.17	ug/L	0.57	0.17	1		10/08/20 18:57	71-55-6	
1,1,2-Trichloroethane	<0.19	ug/L	0.64	0.19	1		10/08/20 18:57	79-00-5	
Trichloroethene	<0.15	ug/L	0.50	0.15	1		10/08/20 18:57	79-01-6	
Trichlorofluoromethane	<0.12	ug/L	0.41	0.12	1		10/08/20 18:57	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	2.0	0.59	1		10/08/20 18:57	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.30	ug/L	1.0	0.30	1		10/08/20 18:57	76-13-1	
1,2,4-Trimethylbenzene	<0.17	ug/L	0.57	0.17	1		10/08/20 18:57	95-63-6	
1,3,5-Trimethylbenzene	<0.12	ug/L	0.41	0.12	1		10/08/20 18:57	108-67-8	
Vinyl chloride	<0.099	ug/L	0.33	0.099	1		10/08/20 18:57	75-01-4	
Xylene (Total)	<0.29	ug/L	0.96	0.29	1		10/08/20 18:57	1330-20-7	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	105	%	75-125		1		10/08/20 18:57	17060-07-0	
Toluene-d8 (S)	104	%	75-125		1		10/08/20 18:57	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125		1		10/08/20 18:57	460-00-4	

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

QC Batch:	368821	Analysis Method:	EPA 6010
QC Batch Method:	EPA 6010	Analysis Description:	ICP Metals, Trace, Dissolved
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 10534496001, 10534496002, 10534496003, 10534496004, 10534496005

METHOD BLANK: 2132279 Matrix: Water

Associated Lab Samples: 10534496001, 10534496002, 10534496003, 10534496004, 10534496005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium, Dissolved	ug/L	<169	500	10/20/20 14:46	
Lead, Dissolved	ug/L	<6.4	20.0	10/20/20 14:46	
Magnesium, Dissolved	ug/L	<187	1000	10/20/20 14:46	
Total Hardness by 2340B, Dissolved	ug/L	<150	2000	10/20/20 14:46	

LABORATORY CONTROL SAMPLE: 2132280

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	5000	4750	95	80-120	
Lead, Dissolved	ug/L	500	467	93	80-120	
Magnesium, Dissolved	ug/L	5000	4600	92	80-120	
Total Hardness by 2340B, Dissolved	ug/L		30800			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2132282 2132283

Parameter	Units	2132282		2132283		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10534496001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium, Dissolved	ug/L	95400	50000	50000	142000	142000	93	93	75-125	0	20
Lead, Dissolved	ug/L	<6.4	500	500	479	482	96	96	75-125	1	20
Magnesium, Dissolved	ug/L	74000	50000	50000	121000	120000	94	93	75-125	0	20
Total Hardness by 2340B, Dissolved	ug/L	543000			852000	850000				0	20

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

QC Batch: 703346

Analysis Method: EPA 8260B

QC Batch Method: EPA 8260B

Analysis Description: 8260B MSV 465 W

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10534496001, 10534496002, 10534496003, 10534496004, 10534496005, 10534496006

METHOD BLANK: 3757070

Matrix: Water

Associated Lab Samples: 10534496001, 10534496002, 10534496003, 10534496004, 10534496005, 10534496006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.13	0.44	10/08/20 18:40	
1,1,1-Trichloroethane	ug/L	<0.17	0.57	10/08/20 18:40	
1,1,2,2-Tetrachloroethane	ug/L	<0.16	0.53	10/08/20 18:40	
1,1,2-Trichloroethane	ug/L	<0.19	0.64	10/08/20 18:40	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.30	1.0	10/08/20 18:40	
1,1-Dichloroethane	ug/L	<0.17	0.55	10/08/20 18:40	
1,1-Dichloroethene	ug/L	<0.13	0.42	10/08/20 18:40	
1,1-Dichloropropene	ug/L	<0.22	0.74	10/08/20 18:40	
1,2,3-Trichlorobenzene	ug/L	<0.17	0.57	10/08/20 18:40	
1,2,3-Trichloropropane	ug/L	<0.59	2.0	10/08/20 18:40	
1,2,4-Trichlorobenzene	ug/L	<0.19	0.63	10/08/20 18:40	
1,2,4-Trimethylbenzene	ug/L	<0.17	0.57	10/08/20 18:40	
1,2-Dibromo-3-chloropropane	ug/L	<1.2	4.2	10/08/20 18:40	
1,2-Dibromoethane (EDB)	ug/L	<0.18	0.60	10/08/20 18:40	
1,2-Dichlorobenzene	ug/L	<0.14	0.45	10/08/20 18:40	
1,2-Dichloroethane	ug/L	<0.25	0.85	10/08/20 18:40	
1,2-Dichloropropane	ug/L	<0.14	0.46	10/08/20 18:40	
1,3,5-Trimethylbenzene	ug/L	<0.12	0.41	10/08/20 18:40	
1,3-Dichlorobenzene	ug/L	<0.12	0.39	10/08/20 18:40	
1,3-Dichloropropane	ug/L	<0.13	0.43	10/08/20 18:40	
1,4-Dichlorobenzene	ug/L	<0.082	0.27	10/08/20 18:40	
2,2-Dichloropropane	ug/L	<0.20	0.66	10/08/20 18:40	
2-Butanone (MEK)	ug/L	<0.88	2.9	10/08/20 18:40	
2-Chlorotoluene	ug/L	<0.16	0.55	10/08/20 18:40	
4-Chlorotoluene	ug/L	<0.050	0.17	10/08/20 18:40	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.54	1.8	10/08/20 18:40	
Acetone	ug/L	<2.5	8.4	10/08/20 18:40	
Allyl chloride	ug/L	<0.27	0.90	10/08/20 18:40	
Benzene	ug/L	<0.12	0.40	10/08/20 18:40	
Bromobenzene	ug/L	<0.13	0.44	10/08/20 18:40	
Bromochloromethane	ug/L	<0.36	1.2	10/08/20 18:40	
Bromodichloromethane	ug/L	<0.11	0.38	10/08/20 18:40	
Bromoform	ug/L	<0.27	0.90	10/08/20 18:40	
Bromomethane	ug/L	<0.63	2.1	10/08/20 18:40	
Carbon tetrachloride	ug/L	<0.17	0.56	10/08/20 18:40	
Chlorobenzene	ug/L	<0.076	0.25	10/08/20 18:40	
Chloroethane	ug/L	<0.42	1.4	10/08/20 18:40	
Chloroform	ug/L	<0.48	1.6	10/08/20 18:40	
Chloromethane	ug/L	<0.15	0.49	10/08/20 18:40	
cis-1,2-Dichloroethene	ug/L	<0.20	0.66	10/08/20 18:40	

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

METHOD BLANK: 3757070

Matrix: Water

Associated Lab Samples: 10534496001, 10534496002, 10534496003, 10534496004, 10534496005, 10534496006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	<0.077	0.26	10/08/20 18:40	
Dibromochloromethane	ug/L	<0.20	0.66	10/08/20 18:40	
Dibromomethane	ug/L	<0.15	0.51	10/08/20 18:40	
Dichlorodifluoromethane	ug/L	<0.20	0.65	10/08/20 18:40	
Dichlorofluoromethane	ug/L	<0.19	0.63	10/08/20 18:40	
Diethyl ether (Ethyl ether)	ug/L	<0.18	0.58	10/08/20 18:40	
Ethylbenzene	ug/L	<0.075	0.25	10/08/20 18:40	
Hexachloro-1,3-butadiene	ug/L	0.76J	1.3	10/08/20 18:40	
Isopropylbenzene (Cumene)	ug/L	<0.13	0.44	10/08/20 18:40	
Methyl-tert-butyl ether	ug/L	<0.12	0.39	10/08/20 18:40	
Methylene Chloride	ug/L	<1.1	3.7	10/08/20 18:40	
n-Butylbenzene	ug/L	<0.16	0.52	10/08/20 18:40	
n-Propylbenzene	ug/L	<0.18	0.61	10/08/20 18:40	
Naphthalene	ug/L	<0.68	2.3	10/08/20 18:40	
p-Isopropyltoluene	ug/L	<0.18	0.59	10/08/20 18:40	
sec-Butylbenzene	ug/L	<0.15	0.49	10/08/20 18:40	
Styrene	ug/L	<0.11	0.37	10/08/20 18:40	
tert-Butylbenzene	ug/L	<0.13	0.43	10/08/20 18:40	
Tetrachloroethene	ug/L	<0.17	0.58	10/08/20 18:40	
Tetrahydrofuran	ug/L	<3.4	11.3	10/08/20 18:40	
Toluene	ug/L	<0.12	0.41	10/08/20 18:40	
trans-1,2-Dichloroethene	ug/L	<0.19	0.64	10/08/20 18:40	
trans-1,3-Dichloropropene	ug/L	<0.32	1.0	10/08/20 18:40	
Trichloroethene	ug/L	<0.15	0.50	10/08/20 18:40	
Trichlorofluoromethane	ug/L	<0.12	0.41	10/08/20 18:40	
Vinyl chloride	ug/L	<0.099	0.33	10/08/20 18:40	
Xylene (Total)	ug/L	<0.29	0.96	10/08/20 18:40	
1,2-Dichloroethane-d4 (S)	%	101	75-125	10/08/20 18:40	
4-Bromofluorobenzene (S)	%	105	75-125	10/08/20 18:40	
Toluene-d8 (S)	%	104	75-125	10/08/20 18:40	

LABORATORY CONTROL SAMPLE: 3757071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	20.1	101	75-128	
1,1,1-Trichloroethane	ug/L	20	21.2	106	75-128	
1,1,2,2-Tetrachloroethane	ug/L	20	19.5	97	69-129	
1,1,2-Trichloroethane	ug/L	20	20.1	100	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	20.4	102	74-125	
1,1-Dichloroethane	ug/L	20	21.1	105	75-125	
1,1-Dichloroethene	ug/L	20	21.3	107	65-125	
1,1-Dichloropropene	ug/L	20	21.2	106	69-131	
1,2,3-Trichlorobenzene	ug/L	20	21.8	109	75-125	
1,2,3-Trichloropropane	ug/L	20	19.6	98	75-125	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

LABORATORY CONTROL SAMPLE: 3757071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	20	19.8	99	67-131	
1,2,4-Trimethylbenzene	ug/L	20	20.4	102	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	51.0	102	65-128	
1,2-Dibromoethane (EDB)	ug/L	20	21.1	105	75-125	
1,2-Dichlorobenzene	ug/L	20	20.6	103	75-125	
1,2-Dichloroethane	ug/L	20	20.2	101	74-125	
1,2-Dichloropropane	ug/L	20	20.5	103	68-125	
1,3,5-Trimethylbenzene	ug/L	20	20.5	103	75-125	
1,3-Dichlorobenzene	ug/L	20	20.4	102	75-125	
1,3-Dichloropropane	ug/L	20	20.6	103	75-125	
1,4-Dichlorobenzene	ug/L	20	20.5	103	75-125	
2,2-Dichloropropane	ug/L	20	20.1	101	70-133	
2-Butanone (MEK)	ug/L	100	105	105	62-142	
2-Chlorotoluene	ug/L	20	20.4	102	75-125	
4-Chlorotoluene	ug/L	20	20.5	102	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	99.0	99	75-125	
Acetone	ug/L	100	135	135	47-150	
Allyl chloride	ug/L	20	19.4	97	65-125	
Benzene	ug/L	20	20.7	104	75-125	
Bromobenzene	ug/L	20	19.7	98	75-125	
Bromochloromethane	ug/L	20	21.1	106	75-125	
Bromodichloromethane	ug/L	20	20.3	102	75-128	
Bromoform	ug/L	20	22.3	112	75-125	
Bromomethane	ug/L	20	28.8	144	43-150	
Carbon tetrachloride	ug/L	20	22.5	113	75-127	
Chlorobenzene	ug/L	20	20.6	103	75-125	
Chloroethane	ug/L	20	18.8	94	72-130	
Chloroform	ug/L	20	20.2	101	75-125	
Chloromethane	ug/L	20	20.7	104	55-128	
cis-1,2-Dichloroethene	ug/L	20	21.5	108	75-125	
cis-1,3-Dichloropropene	ug/L	20	19.8	99	74-132	
Dibromochloromethane	ug/L	20	21.4	107	75-125	
Dibromomethane	ug/L	20	21.2	106	71-137	
Dichlorodifluoromethane	ug/L	20	20.5	103	69-126	
Dichlorofluoromethane	ug/L	20	19.8	99	75-125	
Diethyl ether (Ethyl ether)	ug/L	20	21.7	109	72-125	
Ethylbenzene	ug/L	20	20.4	102	75-125	
Hexachloro-1,3-butadiene	ug/L	20	22.9	114	74-129	
Isopropylbenzene (Cumene)	ug/L	20	21.2	106	75-125	
Methyl-tert-butyl ether	ug/L	20	20.4	102	69-125	
Methylene Chloride	ug/L	20	20.5	103	72-125	
n-Butylbenzene	ug/L	20	21.0	105	75-128	
n-Propylbenzene	ug/L	20	20.0	100	75-125	
Naphthalene	ug/L	20	20.8	104	70-125	
p-Isopropyltoluene	ug/L	20	21.1	105	75-125	
sec-Butylbenzene	ug/L	20	20.8	104	75-127	
Styrene	ug/L	20	20.5	103	75-125	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

LABORATORY CONTROL SAMPLE: 3757071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butylbenzene	ug/L	20	20.7	104	75-125	
Tetrachloroethene	ug/L	20	20.7	103	74-125	
Tetrahydrofuran	ug/L	200	209	105	73-132	
Toluene	ug/L	20	20.3	101	75-125	
trans-1,2-Dichloroethene	ug/L	20	22.1	110	69-125	
trans-1,3-Dichloropropene	ug/L	20	21.5	108	69-130	
Trichloroethene	ug/L	20	21.7	108	75-127	
Trichlorofluoromethane	ug/L	20	19.6	98	71-132	
Vinyl chloride	ug/L	20	20.3	102	65-128	
Xylene (Total)	ug/L	60	61.4	102	75-125	
1,2-Dichloroethane-d4 (S)	%			100	75-125	
4-Bromofluorobenzene (S)	%			95	75-125	
Toluene-d8 (S)	%			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3757603 3757604

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10534496001 Result	Spike Conc.	Spike Conc.	Conc.								
1,1,1,2-Tetrachloroethane	ug/L	<0.13	20	20	20	16.3	16.3	81	81	71-128	0	30	
1,1,1-Trichloroethane	ug/L	<0.17	20	20	20	17.9	18.6	90	93	75-144	4	30	
1,1,2,2-Tetrachloroethane	ug/L	<0.16	20	20	20	16.4	15.7	82	79	63-125	4	30	
1,1,2-Trichloroethane	ug/L	<0.19	20	20	20	16.2	15.3	81	76	75-125	6	30	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.30	20	20	20	19.0	18.8	95	94	69-141	1	30	
1,1-Dichloroethane	ug/L	<0.17	20	20	20	17.0	17.2	85	86	68-125	1	30	
1,1-Dichloroethene	ug/L	<0.13	20	20	20	18.5	18.4	93	92	62-135	1	30	
1,1-Dichloropropene	ug/L	<0.22	20	20	20	18.2	18.7	91	93	61-147	3	30	
1,2,3-Trichlorobenzene	ug/L	<0.17	20	20	20	18.1	18.9	90	94	59-145	4	30	
1,2,3-Trichloropropane	ug/L	<0.59	20	20	20	16.2	15.9	81	79	69-125	2	30	
1,2,4-Trichlorobenzene	ug/L	<0.19	20	20	20	17.5	18.2	88	91	59-144	4	30	
1,2,4-Trimethylbenzene	ug/L	<0.17	20	20	20	17.6	18.1	88	90	56-139	3	30	
1,2-Dibromo-3-chloropropane	ug/L	<1.2	50	50	50	41.7	40.6	83	81	64-125	3	30	
1,2-Dibromoethane (EDB)	ug/L	<0.18	20	20	20	16.3	16.3	81	82	71-125	0	30	
1,2-Dichlorobenzene	ug/L	<0.14	20	20	20	17.3	17.9	86	89	74-125	3	30	
1,2-Dichloroethane	ug/L	<0.25	20	20	20	16.3	16.8	81	84	64-125	3	30	
1,2-Dichloropropane	ug/L	<0.14	20	20	20	16.1	15.5	81	77	63-125	4	30	
1,3,5-Trimethylbenzene	ug/L	<0.12	20	20	20	17.6	18.3	88	92	63-132	4	30	
1,3-Dichlorobenzene	ug/L	<0.12	20	20	20	17.4	18.5	87	93	74-125	6	30	
1,3-Dichloropropane	ug/L	<0.13	20	20	20	16.4	16.3	82	82	75-125	0	30	
1,4-Dichlorobenzene	ug/L	<0.082	20	20	20	17.2	17.9	86	90	73-125	4	30	
2,2-Dichloropropane	ug/L	<0.20	20	20	20	18.8	18.8	94	94	64-145	0	30	
2-Butanone (MEK)	ug/L	<0.88	100	100	100	76.2	75.9	76	76	39-125	0	30	
2-Chlorotoluene	ug/L	<0.16	20	20	20	17.1	18.2	86	91	68-128	6	30	
4-Chlorotoluene	ug/L	<0.050	20	20	20	17.2	17.7	86	88	71-128	3	30	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3757603 3757604												
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		10534496001 Result	Spike Conc.	Spike Conc.	MS Result							
4-Methyl-2-pentanone (MIBK)	ug/L	<0.54	100	100	77.9	75.6	78	76	65-125	3	30	
Acetone	ug/L	<2.5	100	100	70.1	71.4	70	71	32-133	2	30	
Allyl chloride	ug/L	<0.27	20	20	16.3	16.6	82	83	61-125	2	30	
Benzene	ug/L	<0.12	20	20	16.8	16.8	84	84	63-125	0	30	
Bromobenzene	ug/L	<0.13	20	20	16.4	16.4	82	82	75-125	0	30	
Bromochloromethane	ug/L	<0.36	20	20	17.3	16.8	86	84	67-125	3	30	
Bromodichloromethane	ug/L	<0.11	20	20	16.4	16.1	82	80	67-139	2	30	
Bromoform	ug/L	<0.27	20	20	17.1	17.8	86	89	75-125	4	30	
Bromomethane	ug/L	<0.63	20	20	25.0	24.7	124	123	50-150	1	30	
Carbon tetrachloride	ug/L	<0.17	20	20	19.3	19.0	96	95	70-148	2	30	
Chlorobenzene	ug/L	<0.076	20	20	16.8	17.1	84	85	75-125	2	30	
Chloroethane	ug/L	<0.42	20	20	17.8	17.1	89	86	62-142	4	30	
Chloroform	ug/L	<0.48	20	20	16.0	16.4	80	82	67-125	2	30	
Chloromethane	ug/L	<0.15	20	20	21.0	20.0	105	100	43-140	5	30	
cis-1,2-Dichloroethene	ug/L	<0.20	20	20	17.6	17.5	88	87	64-134	1	30	
cis-1,3-Dichloropropene	ug/L	<0.077	20	20	16.4	16.2	82	81	68-129	1	30	
Dibromochloromethane	ug/L	<0.20	20	20	17.0	17.1	85	85	71-137	1	30	
Dibromomethane	ug/L	<0.15	20	20	16.5	16.3	82	81	66-130	1	30	
Dichlorodifluoromethane	ug/L	<0.20	20	20	20.8	20.8	104	104	61-144	0	30	
Dichlorofluoromethane	ug/L	<0.19	20	20	18.6	18.6	93	93	68-125	0	30	
Diethyl ether (Ethyl ether)	ug/L	<0.18	20	20	16.9	16.9	85	84	57-127	1	30	
Ethylbenzene	ug/L	<0.075	20	20	16.8	17.4	84	87	66-128	3	30	
Hexachloro-1,3-butadiene	ug/L	<0.40	20	20	21.7	19.5	108	97	52-150	11	30	
Isopropylbenzene (Cumene)	ug/L	<0.13	20	20	17.6	18.7	88	94	73-138	6	30	
Methyl-tert-butyl ether	ug/L	<0.12	20	20	15.7	15.9	78	80	60-125	2	30	
Methylene Chloride	ug/L	<1.1	20	20	16.7	16.8	83	84	59-125	1	30	
n-Butylbenzene	ug/L	<0.16	20	20	18.9	19.6	95	98	68-146	3	30	
n-Propylbenzene	ug/L	<0.18	20	20	17.6	18.4	88	92	72-132	4	30	
Naphthalene	ug/L	<0.68	20	20	16.6	17.0	83	84	55-135	2	30	
p-Isopropyltoluene	ug/L	<0.18	20	20	18.5	19.4	93	97	69-139	5	30	
sec-Butylbenzene	ug/L	<0.15	20	20	18.7	19.0	93	95	69-149	2	30	
Styrene	ug/L	<0.11	20	20	17.1	17.0	85	85	75-126	1	30	
tert-Butylbenzene	ug/L	<0.13	20	20	17.6	18.8	88	94	67-147	6	30	
Tetrachloroethene	ug/L	<0.17	20	20	18.0	18.6	90	93	70-141	3	30	
Tetrahydrofuran	ug/L	<3.4	200	200	170	174	85	87	64-128	2	30	
Toluene	ug/L	<0.12	20	20	16.7	16.7	84	83	64-125	0	30	
trans-1,2-Dichloroethene	ug/L	<0.19	20	20	18.6	18.6	93	93	62-135	0	30	
trans-1,3-Dichloropropene	ug/L	<0.32	20	20	17.1	17.3	86	87	69-125	1	30	
Trichloroethene	ug/L	<0.15	20	20	17.6	17.2	88	86	69-141	2	30	
Trichlorofluoromethane	ug/L	<0.12	20	20	19.6	19.7	98	98	61-148	1	30	
Vinyl chloride	ug/L	<0.099	20	20	21.0	20.9	105	105	56-144	0	30	
Xylene (Total)	ug/L	<0.29	60	60	51.2	52.0	85	87	64-131	1	30	
1,2-Dichloroethane-d4 (S)	%						103	102	75-125			
4-Bromofluorobenzene (S)	%						100	99	75-125			

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3757603 3757604												
Parameter	Units	10534496001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Toluene-d8 (S)	%						102	102	75-125			

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### QUALITY CONTROL DATA

Project: 49161494.00 200 203 SRC GW GEM  
Pace Project No.: 10534496

QC Batch: 704920 Analysis Method: SM 2320B  
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Minneapolis  
Associated Lab Samples: 10534496001, 10534496002, 10534496003, 10534496004, 10534496005

METHOD BLANK: 3765962 Matrix: Water  
Associated Lab Samples: 10534496001, 10534496002, 10534496003, 10534496004, 10534496005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<2.0	6.7	10/16/20 12:04	

LABORATORY CONTROL SAMPLE & LCSD: 3765963 3765964

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	41.0	41.0	102	103	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3765965 3765966

Parameter	Units	10534484001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	365000 ug/L	40	40	402	405	94	100	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3765967 3765968

Parameter	Units	10534372018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	394	40	40	437	436	107	105	80-120	0	20	

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## QUALIFIERS

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

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### 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.

### ANALYTE QUALIFIERS

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 49161494.00 200 203 SRC GW GEM

Pace Project No.: 10534496

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10534496001	MW-8R	EPA 6010	368821		
10534496002	MW-1	EPA 6010	368821		
10534496003	MW-2	EPA 6010	368821		
10534496004	MW-3D	EPA 6010	368821		
10534496005	MW-9B	EPA 6010	368821		
10534496001	MW-8R	EPA 8260B	703346		
10534496002	MW-1	EPA 8260B	703346		
10534496003	MW-2	EPA 8260B	703346		
10534496004	MW-3D	EPA 8260B	703346		
10534496005	MW-9B	EPA 8260B	703346		
10534496006	Trip Blank	EPA 8260B	703346		
10534496001	MW-8R	SM 2320B	704920		
10534496002	MW-1	SM 2320B	704920		
10534496003	MW-2	SM 2320B	704920		
10534496004	MW-3D	SM 2320B	704920		
10534496005	MW-9B	SM 2320B	704920		

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# Barr Engineering Co. Chain of Custody

Sample Origination State

CO  MI  MN  MO  ND  TX  UT  WI  Other: \_\_\_\_\_

REPORT TO	INVOICE TO
Company: <i>Barr Engineering Co.</i>	Company: <i>B&amp;V</i>
Address: <i>325 S. Lake Ave.</i>	Address:
Address: <i>Duluth, MN 55802</i>	Address:
Name: <i>Lynette Carney</i>	Name:
email: <i>lcarney@barr.com</i>	email:
Copy to: <i>BarrDM@barr.com</i>	P.O. <i>-</i>
Project Name: <i>SRC GW sampling GEM</i>	Barr Project No: <i>4916494.00 200 203</i>

Perform MS/MSD Y/N	Total Number Of Containers	Analysis Requested												% Solids
		Water						Soil						
		B	A	A	C									
	<i>2</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>									

*VOCs by EPA method 8260*  
*Hardness*  
*Alkalinity*  
*Lead, Dissolved*

COC Number: **№ 587986**

COC 1 of 1

**Matrix Code:**  
 GW = Groundwater  
 SW = Surface Water  
 WW = Waste Water  
 DW = Drinking Water  
 S = Soil/Solid  
 SD = Sediment  
 O = Other

**Preservative Code:**  
 A = None  
 B = HCl  
 C = HNO<sub>3</sub>  
 D = H<sub>2</sub>SO<sub>4</sub>  
 E = NaOH  
 F = MeOH  
 G = NaHSO<sub>4</sub>  
 H = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
 I = Ascorbic Acid  
 J = Zn Acetate  
 K = Other

Location	Sample Depth			Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Perform MS/MSD Y/N	Total Number Of Containers	Analysis Requested												% Solids				
	Start	Stop	Unit (m./ft. or in.)						B	A	A	C													
1. <i>MW-8R</i>				<i>10/05/2020</i>	<i>0855</i>	<i>GW</i>	<i>N</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>													
2. <i>MW-1</i>					<i>0935</i>		<i>N</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>													
3. <i>MW-2</i>					<i>1005</i>		<i>N</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>													
4. <i>MW-3D</i>					<i>1020</i>		<i>N</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>													
5. <i>MW-9B</i>					<i>1040</i>		<i>N</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>													
6. <i>Trip Blank</i>				<i>10/05/2020</i>	<i>-</i>	<i>-</i>	<i>N</i>	<i>2</i>	<i>X</i>																
7.																									
8.																									
9.																									
10.																									

Preservative Code

Field Filtered Y/N

*001*

*002*

*003*

*004*

*005*

*006*

**WO#: 10534496**



<b>BARR USE ONLY</b>		Relinquished by: <i>Kathleen Monty</i>	On Ice? <input checked="" type="radio"/> N	Date: <i>10/6/20</i>	Time: <i>1314</i>	Received by: <i>[Signature]</i>	Date: <i>10/6/20</i>	Time: <i>1314</i>
Sampled by: <i>KMJ3</i>		Relinquished by: <i>[Signature]</i>	On Ice? <input checked="" type="radio"/> N	Date: <i>10/6/20</i>	Time: <i>1400</i>	Received by: <i>RACE</i>	Date: <i>10/6/20</i>	Time: <i>1930</i>
Barr Proj. Manager: <i>LML</i>		Samples Shipped VIA: <input type="checkbox"/> Ground Courier <input type="checkbox"/> Air Carrier		Air Bill Number:		<b>Requested Due Date:</b>		
Barr DQ Manager: <i>JET</i>		<input type="checkbox"/> Sampler <input type="checkbox"/> Other: _____		Custody Seal Intact? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> None		<input checked="" type="checkbox"/> Standard Turn Around Time		
Lab Name: <i>Pace</i>		Lab WO: _____		Temperature on Receipt (°C): <i>22</i>		<input type="checkbox"/> Rush _____ (mm/dd/yyyy)		
Lab Location: <i>Minneapolis</i>								



Document Name:  
**Sample Condition Upon Receipt (SCUR) - MN**  
 Document No.:  
**ENV-FRM-MIN4-0150 Rev.01**

Document Revised: 12Aug2020  
**Page 1 of 1**  
 Pace Analytical Services -  
**Minneapolis**

**Sample Condition Upon Receipt**

Client Name:

Project #:

Barr

**WO# : 10534496**

Courier:  Fed Ex  UPS  USPS  Client  
 Pace  SpeeDee  Commercial

PM: AA1 Due Date: 10/14/20  
 CLIENT: BARR

Tracking Number:  See Exceptions ENV-FRM-MIN4-0142

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(0489) Type of Ice:  Wet  Blue  None  Dry  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: 2.2 °C Average Corrected Temp (no temp blank only): °C  See Exceptions ENV-FRM-MIN4-0142  1 Container

Correction Factor: true Cooler Temp Corrected w/temp blank: 2.2 °C

USDA Regulated Soil: (  N/A, water sample/Other: ) Date/Initials of Person Examining Contents: JM/10/12

Did samples originate in a quarantine zone within the United States: AL, AR, 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 (F-MN-Q-338) and include with SCUR/COC paperwork.

	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.
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 Chrome <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 Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Field Filtered Volume Received for Dissolved Tests? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11. If no, write ID/ Date/Time on Container Below: <input type="checkbox"/> See Exception ENV-FRM-MIN4-0142
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
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>15-41</u> <input type="checkbox"/> NaOH <input checked="" type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , <2pH, NaOH >9 Sulfide, NaOH >10 Cyanide) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Positive for Res. Chlorine? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> See Exception ENV-FRM-MIN4-0142
Exceptions: <input checked="" type="checkbox"/> Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	pH Paper Lot# Res. Chlorine <u>9-6 Roll 103619</u> 0-6 Strip 0-14 Strip
Extra labels present on soil VOA or WIDRO containers? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> See Exception ENV-FRM-MIN4-0140
Headspace in VOA Vials (greater than 6mm)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Trip Blank Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14. Pace Trip Blank Lot # (if purchased): <u>2735002</u>
Trip Blank Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

**CLIENT NOTIFICATION/RESOLUTION**

Person Contacted: \_\_\_\_\_  
 Comments/Resolution: \_\_\_\_\_

Field Data Required?  Yes  No

Date/Time: \_\_\_\_\_

**Project Manager Review:**

Date: 10/9/20

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: RNC Page 28 of 31







1241 Bellevue Street, Green Bay, WI 54302

Document Name:  
Sample Condition Upon Receipt (SCUR)

Document No.:  
ENV-FRM-GBAY-0014-Rev.00

Document Revised: 26Mar2020

Author:  
Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Client Name: Pace MN

Project #:

**WO# : 40216326**

40216326

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco  
 Client  Pace Other: \_\_\_\_\_

Tracking #: 2607629-1

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR - 98 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 2.0 / Corr: 2.0

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:  
Date: 10/10/20 Initials: SRK  
Labeled By Initials: SRK

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4. <u>IRW</u> <span style="float: right;">10/10/20 SRK</span>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
-Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir