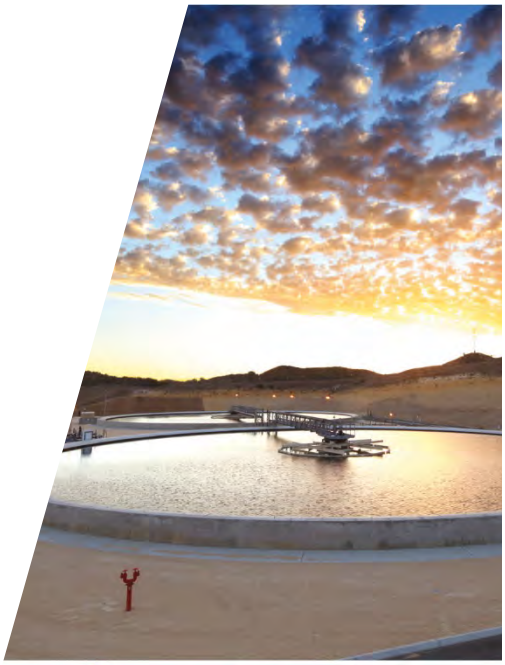

2019 Site Monitoring Report

Former City of Rhinelander Landfill
BRRTS #: 02 44 200967
Rhinelander, Wisconsin

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1. Introduction

This report presents the results of the groundwater and surface water sampling program, along with the operation and maintenance activities, associated with former City of Rhinelander Landfill (Site). GHD Services Inc. (GHD) completed this report on behalf of the Rhinelander Landfill Group (RLG). The RLG retained GHD in June 2016 to perform the Site maintenance and monitoring activities.

1.1 Location

The former Site is located in the NE ¼ of Section 8 in Township 36 North, Range 9 East, Oneida County, Wisconsin. It is located at the confluence of Slaughterhouse Creek and the Pelican River along Old Highway 8. The Site is shown on Figure 1.

1.2 Background

The Site was opened in 1939 and ceased accepting waste in 1979. The landfill was closed and capped in 1980. The landfill was owned and operated by the City of Rhinelander throughout the entire 40-year operational period. The landfill is still currently owned by the City of Rhinelander.

1.3 2019 Activities

The following activities associated with the Site were conducted in 2019:

- April 29-30: Semi-Annual groundwater sampling of 8 monitoring wells
- April 30: Semi-Annual surface water sampling at three locations in Slaughterhouse Creek
- May 29: GHD submits semi-annual groundwater monitoring report to the Wisconsin Department of Natural Resources (WDNR)
- May 29: GHD submits semi-annual GEMS data to the WDNR
- July: City of Rhinelander mows the landfill cover
- Sept 24-25: Annual groundwater sampling/monitoring of 22 monitoring wells
- Sept 24: Semi-Annual surface water sampling at three locations in Slaughterhouse Creek
- January 7, 2020: GHD submits semi-annual GEMS data to the WDNR

2. Landfill Inspections

A landfill inspection was completed during each of the two sampling events.

2.1 Grass Cover

The grass cover on the landfill is in good condition. Mowing was completed by the City of Rhinelander in July 2019.

2.2 Trespassing and Site Security

The fence surrounding the landfill is currently in good condition. There are no known trespassing issues for this reporting period.

2.3 Beavers – Area 2 Restoration

A small percentage of the Area 2 restoration willow trees have been harvested by beavers. This is especially noted along the water's edge on the north side of the restoration area. Harvested trees are noted to be re-sprouting and no additional effort is planned at this time.

3. Phytoremediation/Poplar Tree Cover

The RLG voluntarily planted hybrid poplar trees and willow trees on the north end of the landfill in 1999 and 2000. The trees cover an area of approximately 7-acres. These trees were planted to provide the benefits of phytoremediation to the groundwater and leachate on the north end of the landfill. The hybrid poplar trees are periodically evaluated for overall health and survival. Several fallen trees were observed and end-of-life mortality was noted in a small percentage of the trees.

The RLG sub-contracted a WDNR-Certified Forestry Plan Writer in 2018 to coordinate and oversee a logging contractor who harvested the trees by standard coppice methods. The coppice work included harvesting nearly all above-ground biomass, leaving only the stump and roots behind. During subsequent landfill inspections, it was noted that new growth was reemerging from the existing stumps and roots. The new growth is expected to continue the phytoremediation process.

4. Surface Water Sampling

4.1 Sampling Dates and Methods

Two rounds of surface water sampling were conducted in Slaughterhouse Creek in 2019: one in April and one in September. Samples were collected from the following locations and are presented on Figure 2:

- Upstream of the Site near the old Slaughterhouse (SW-10)
- Downstream of the landfill at the Newell Street Bridge (SW-20).
- At the toe of the Area 2 Restoration project (SW-28).

4.2 Sample Results

Surface water results from this period are shown in Table 1. Most or all the results from this period are similar or within the normal range of variability when compared to prior sampling dates. Surface water laboratory reports, along with the Data Validation Memos, for this period are in Appendix A.

Chloride, ammonia, copper, lead, and zinc have established surface water quality standards as enumerated in Chapter NR 105, Wisc. Admin Code (NR 105). None of the 2019 results showed an exceedance of any applicable standard as expressed in NR 105 with the exception of ammonia at the SW-28 location. The discussion in this section compares the results to their codified NR 105

standards. In order to do this, certain field parameters (pH and temperature for ammonia/ammonium and hardness for metals) need to be considered in making the comparison to the standards. Comparisons of values using straight concentration comparisons are not valid for NR 105 exceedance evaluation for certain substances.

Chloride concentrations varied little among the five samples analyzed in 2019, ranging from 33.2 mg/L to 59.8 mg/L. The acute chloride toxicity surface water quality criteria, as listed in Table 1 of NR 105, is 757 mg/L. The chronic chloride standard for warm water sportfish is 395 mg/L, as listed in Table 5 of NR 105. Table 2 shows the chloride data relative to the applicable NR 105 standards.

Zinc, copper, and lead were detected some of the six surface water samples collected in 2019. All detected concentrations were estimated (J) values with a range from 4.0J µg/L to 18.0J µg/L. No metals results exceeded their respective standards relative to their applicable standard (analysis for zinc, copper, and lead) listed in Table 2 and Table 6 of NR 105. Table 3 shows the lead, zinc, and copper data relative to Table 2 and Table 6 of the NR 105 applicable standards.

Ammonia is regulated under Table 2C (acute toxicity), Table 4B (30-day chronic), and Table 4B (4-day chronic toxicity) of NR 105. The applicable standard is based on the temperature and pH of the sample water, and thus results from point to point or round to round are not directly comparable based on total concentrations. In September 2019, the sample collected from SW-28 (Area 2 Restoration) exceeded the calculated standards from Table 2C and Table 4B. No other samples had concentrations above the acute or chronic standards. The last exceedance for ammonia at SW-28 was in 2013. The surface water locations will be sampled again in April 2020. Table 4 shows the ammonia data relative to the applicable NR 105 standards.

5. Groundwater Monitoring

5.1 Summary of Groundwater Monitoring Program

Figure 3 presents the network of monitoring wells identified for groundwater monitoring. The groundwater monitoring well network consists of a total of 35 wells, of which 23 are part of the monitoring program. These wells are screened in the upper, middle, and lower portions of the shallow regional aquifer.

Table 5 summarizes the sampling locations in the monitoring plan, and illustrates any changes to the monitoring plan that have occurred during the monitoring period.

During this reporting period, groundwater monitoring was conducted in April and September. The April 2019 sample round consisted of collecting samples from nine monitoring wells. One well, MW-28A, was unable to be sampled due to spring flooding. The September 2019 round consisted of collecting samples from 20 monitoring wells. One well, MW-3A, was unable to be sampled in the September due to not being able to locate the well.

Monitoring well locations were sampled for analysis of volatile organic compounds (VOCs) + tetrahydrofuran, select dissolved metals, hardness, chloride, and, alkalinity. Select wells were sampled for ammonia/kjeldahl (TKN) nitrogen. Field parameters included in the sampling are pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity.

5.2 Hydraulic Monitoring Program

During this reporting period, GHD collected a water level measurement from each monitoring well during the annual fall sampling round. September 2019 groundwater contours for the upper “A” and middle “B” wells are presented on Figures 4 and 5. Groundwater elevations for the deep “C” wells are presented on Figure 6. Not enough data points were present to contour the “C” elevations. Table 6 presents the groundwater elevations for the September 2019 monitoring event.

Groundwater flow directions for the "A" and "B" wells exhibit a radial flow direction from the landfill to the surface water features located to northwest (Slaughterhouse Creek) and southwest (Pelican River). Groundwater flows from the landfill towards Slaughterhouse Creek to the north and towards the Pelican River to the southwest. The low vertical gradients indicate that groundwater flow is predominantly horizontal with minimal vertical movement.

5.3 Groundwater Sampling Program

Groundwater sampling was conducted in accordance with the April 29, 2016 letter from the WDNR to the RLG. Sampling methods are in accordance with the WDNR Groundwater Sampling Field Manual. Table 5 summarizes the monitoring well sampling events.

Samples were collected immediately after purging. Samples were placed in iced coolers and shipped via standard chain of custody procedures to Pace Analytical Laboratories in Green Bay, Wisconsin.

Appendix B contains a copy of the laboratory reports associated with the 2019 groundwater sampling events. A copy of the data quality assessments and validation memos are also provided in Appendix B.

Table 7 provides a summary of detected compounds in monitoring wells sampled during the April and September 2019 sampling events.

5.4 Groundwater Sampling Results

The analytical results from the 2019 sampling events, along with the previous two years, are presented on Table 7. The groundwater sampling results from 2019 are consistent with historical results. Groundwater laboratory reports, along with the Data Validation Memos, for this period are in Appendix B.

5.4.1 VOCs

Four VOCs exceeded their respective Wisconsin Enforcement Standard (WES) in monitoring well samples collected during this reporting period: benzene, tetrahydrofuran, trichloroethene (TCE), and vinyl chloride.

Benzene results exceeded the WES at one location (MW-2A). Tetrahydrofuran results exceeded the WES at two locations (MW-2A and MW-21A). TCE results exceeded the WES at two locations (MW-18B and MW-18C). Vinyl chloride results exceeded the WES at eleven locations (MW-2B,

MW-16A, MW-16B, MW-16C, MW-18A, MW-20B, MW-20C, MW-25B, MW-26B, MW-26C, and MW-28A).

The VOC exceedances, along with the concentrations for the September 2019 monitoring event, are presented on Figure 7. Graphs of vinyl chloride concentrations over time at select well nests are provided in Appendix C.

5.4.2 Metals

Three dissolved metals exceeded their respective WES in monitoring well samples collected during this reporting period: boron, iron, and manganese.

Boron results exceeded the WES at two locations: MW-2A and MW-21A.

Iron results exceeded the WES at 13 locations: MW-2A, MW-2B, MW-16A, MW-16B, MW-16C, MW-18A, MW-20A, MW-20B, MW-20C, MW-21A, MW-26B, MW-26C, and MW-28A.

Manganese results exceeded the WES at 17 locations: MW-2A, MW-2B, MW-5A, MW-16A, MW-16B, MW-16C, MW-18A, MW-18B, MW-18C, MW-20A, MW-20B, MW-20C, MW-21A, MW-26B, MW-26C, MW-27B, and MW-28A.

5.4.3 Other Analytes

Two other analytes exceeded the WES in the monitoring well samples collected during this reporting period: ammonia and chloride. Ammonia results exceeded the WES at two locations (MW-2A and MW-21A. Chloride results exceeded the WES at one location (MW-5A).

6. Conclusions and Recommendations

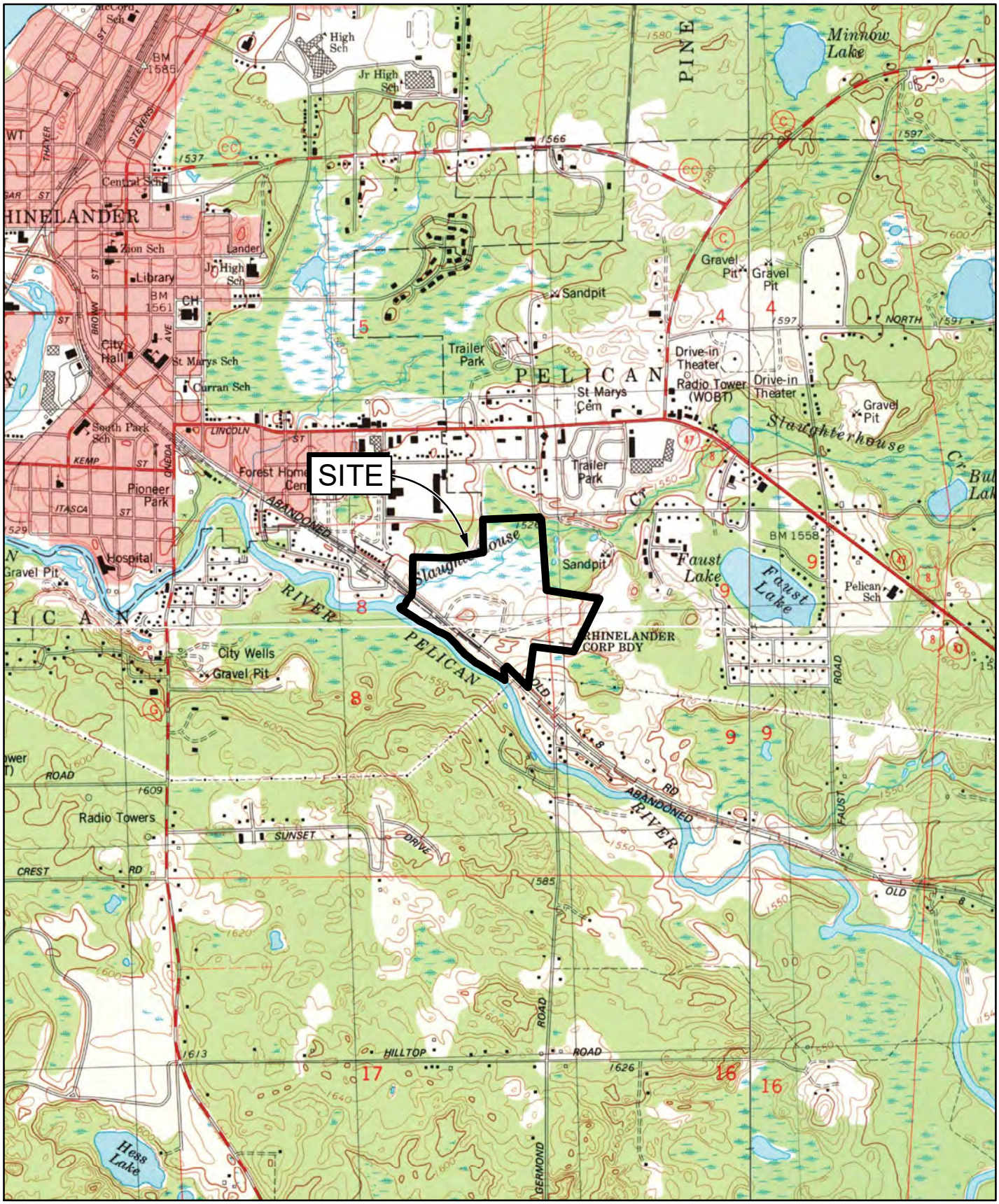
Based on the 2019 surface water and groundwater sampling activities, the following conclusions are made:

- Ammonia exceeded the NR 105 standards in the SW-28 sample from the September 2019 sampling event. No other sample results from the 2019 surface water sampling events indicated an exceedance of any applicable standard.
- Other typical landfill parameters (ammonia and chloride) are present in groundwater but are not impacting the adjacent surface water.
- Groundwater exhibits a radial flow direction from the landfill towards Slaughterhouse Creek to the north and towards the Pelican River to the southwest.
- Four VOCs exceeded their respective WES in monitoring well samples collected during this reporting period: benzene, tetrahydrofuran, TCE, and vinyl chloride.
- Three dissolved metals exceeded their respective WES in monitoring well samples collected during this reporting period: boron, iron, and manganese.
- Two other analytes exceeded the WES in the monitoring well samples collected during this reporting period: ammonia and chloride.
- The groundwater sampling results from 2019 are consistent with historical results.

- The elevated levels of iron and manganese are attributed to naturally occurring conditions.
- VOCs are sporadically present at low concentrations and do not indicate the presence of a plume emanating from the Site and impacting surface waters.

Based on the conclusions stated above, GHD, on behalf of the RLG, recommends the following:

- Continue the semi-annual monitoring of the surface water as outlined in Table 5.
- Reduce the amount of analytes collected during the semi-annual and annual sampling rounds. Currently, GHD samples for VOCs + tetrahydrofuran, alkalinity, chloride, hardness, dissolved metals, ammonia, and TKN. Moving forward, GHD recommends only sampling for VOCs + tetrahydrofuran, and ammonia and TKN, in select wells. The RLG has over twenty years of data indicating consistent levels of alkalinity, chloride, hardness, and dissolved metals. As presented in Table 7, alkalinity, chloride, hardness, and dissolved metals have shown consistent values since 2016. GHD believes that after 20 years of monitoring a comprehensive and consistent database has been established for these parameters, which show a steady state condition. Hence, sampling for these analytes provides no added benefit and is no longer necessary.



Source: USGS 7.5 Minute Topos - Rhinelander; Moen Lake; Lake Julia; George Lake

0 1,000 2,000 ft

N

GHD

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2019 SITE MONITORING REPORT

11115796-50

Dec 18, 2019

SITE LOCATION

FIGURE 1

GIS File: I:\GIS\Projects\8-chars\11------\1111----\111157--\11115796\11115796-REPORTS\11115796-50(006)\11115796-50(006)GIS-SP001.mxd

Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 50 100 150 ft

N

LEGEND

- SURFACE WATER SAMPLING LOCATION
- APPROXIMATE EDGE OF WASTE
- SITE PROPERTY BOUNDARY

GHD

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2019 SITE MONITORING REPORT

11115796-50
Dec 18, 2019

SURFACE WATER SAMPLING LOCATIONS

FIGURE 2

GIS File: I:\GIS\Projects\8-chars\11------\1111----\111157--\11115796\11115796-REPORTS\11115796-50(006)\11115796-50(006)GIS-SP002.mxd

Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

N

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- APPROXIMATE EDGE OF WASTE
- SITE PROPERTY BOUNDARY

GHD

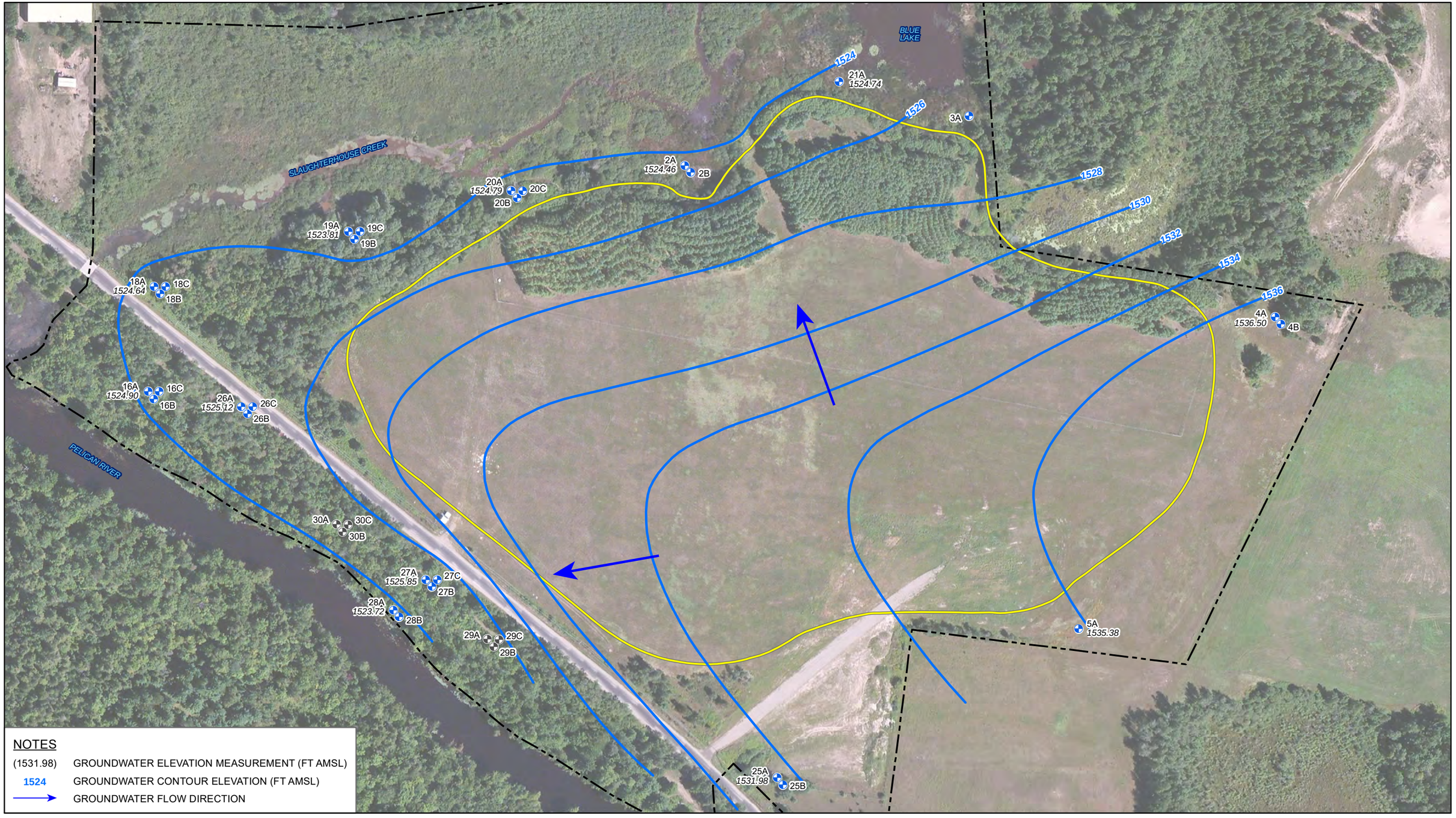
FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2019 SITE MONITORING REPORT

11115796-50
Dec 18, 2019

MONITORING WELL LOCATIONS

FIGURE 3

GIS File: I:\GIS\Projects\8-chars\11------\1111----\111157--\11115796\11115796-REPORTS\11115796-50(006)\11115796-50(006)GIS-SP003.mxd



Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

N

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- GROUNDWATER CONTOUR (FT AMSL)
- APPROXIMATE EDGE OF WASTE

GHD

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2019 SITE MONITORING REPORT

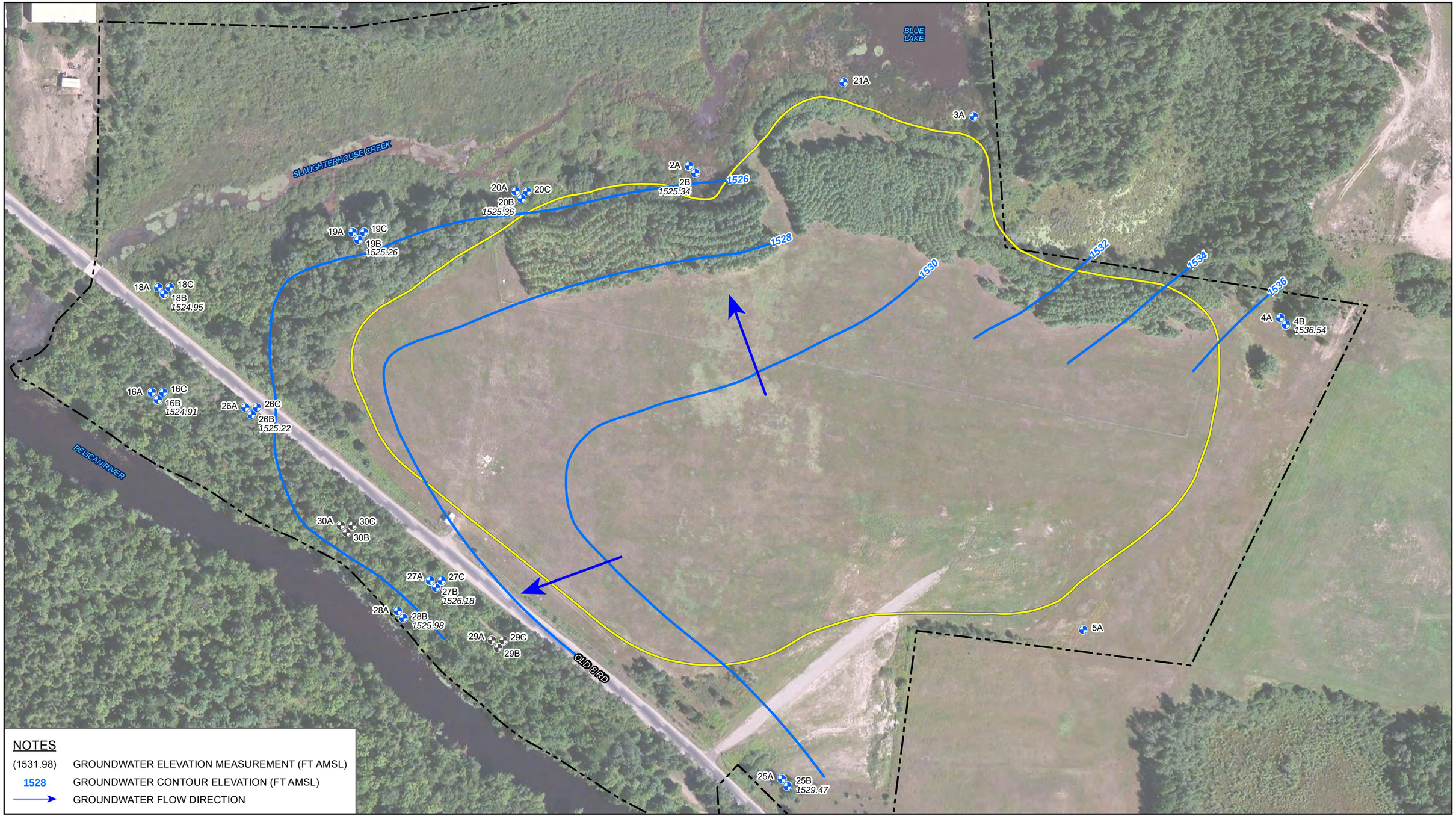
SHALLOW GROUNDWATER CONTOURS "A" MONITORING WELLS

11115796-50

Jan 22, 2020

FIGURE 4

GIS File: I:\GIS\Projects\8-chars\11------\1111----\111157--\11115796\11115796-REPORTS\11115796-50(006)\11115796-50(006)GIS-SP004.mxd



Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

N

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- GROUNDWATER CONTOUR (FT AMSL)
- APPROXIMATE EDGE OF WASTE

GHD

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2019 SITE MONITORING REPORT

INTERMEDIATE GROUNDWATER CONTOURS "B" MONITORING WELLS

11115796-50

Jan 22, 2020

FIGURE 5

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Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- APPROXIMATE EDGE OF WASTE

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2019 SITE MONITORING REPORT

DEEP GROUNDWATER ELEVATIONS "C" MONITORING WELLS

11115796-50
Dec 18, 2019

FIGURE 6

GIS File: I:\GIS\Projects\8-chars\11------\1111----\111157--\11115796\11115796-REPORTS\11115796-50(006)\11115796-50(006)GIS-SP006.mxd

Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- APPROXIMATE EDGE OF WASTE
- SITE PROPERTY BOUNDARY

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2019 SITE MONITORING REPORT

11115796-50
Jan 21, 2020

SEPTEMBER 2019 WES VOC EXCEEDANCES

FIGURE 7

GIS File: I:\GIS\Projects\8-chars\11------\1111----\111157--\11115796\11115796-REPORTS\11115796-50(006)\11115796-50(006)GIS-SP007.mxd

Table 1

2019 Surface Water Sample Results
Former City of Rhinelander Landfill - Slaughterhouse Creek
Rhinelander, Wisconsin

		Upstream		Downstream		Near Seep	
Sample Location:		**SW-10**	**SW-10**	**SW-20**	**SW-20**	**SW-28**	**SW-28**
Sample Date:		**04/30/19**	**09/24/19**	**04/30/19**	**09/24/19**	**04/30/19**	**09/24/19**
Parameters	**Unit**						
Metals							
Hardness	mg/L	41.7	66.9	45.4	101	49.4	278
Copper	µg/L	< 6.3	< 3.4	< 6.3	< 3.4	< 6.3	4.0 J
Iron	µg/L	2,650	5,150	2,280	5,320	2,760	12,900
Lead	µg/L	7.6 J	< 5.9	< 5.9	< 5.9	6.1 J	< 5.9
Sodium	µg/L	17,900	21,200	21,100	25,300	20,000	40,200
Zinc	µg/L	18.0 J	< 11.6	< 11.6	12.4 J	13.6 J	< 11.6
General Chemistry							
Fecal coliform bacteria	cfu/100mL	28	29.40	2.0	29.3	5.71	18.0
Ammonia	mg/L	< 0.25	< 0.25	< 0.25	1.2	< 0.25	87.7
Chemical oxygen demand (COD)	mg/L	30.4 J	30.4 J	25.2 J	19.7 J	29.7 J	90.6
Chloride	mg/L	42.4	42.8	44.2	59.8	46.5	33.2
Nitrite/Nitrate	mg/L	0.12 J	0.10 J	0.14 J	0.23 J	0.13 J	0.21 J
Total kjeldahl nitrogen (TKN)	mg/L	0.78	0.48 J	0.51 J	1.6	0.63 J	80.2
Turbidity	NTU	12.3	-	9.1	-	12.0	-
Field Data							
Temperature	º C	5.35	15.05	6.18	17.60	5.81	18.31
pH	SU	7.25	8.13	7.42	8.07	7.29	6.70
Conductivity	µS	236	267	247	417	263	203
Dissolved Oxygen	mg/L	7.91	1.32	5.68	0.00	5.24	0.00
Oxidation Reduction Potential	mV	24	-2	-11	-32	10	-46
Turbidity	NTU	31.0	36.1	16.8	10.2	19	457

Chloride Results Relative to NR 105 Standards
Former City of Rhinelander Landfill - Slaughterhouse Creek
Rhinelander, Wisconsin

Sample Location	Sample Date	Parameter	Units	Result	WWSF Table 1 Standard	WWSF Table 5 Standard
SW-10	4/30/2019	Chloride	mg/L	42.4	757	395
SW-10	9/24/2019	Chloride	mg/L	42.8	757	395
SW-20	4/30/2019	Chloride	mg/L	44.2	757	395
SW-20	9/24/2019	Chloride	mg/L	59.8	757	395
SW-28	4/30/2019	Chloride	mg/L	46.5	757	395
SW-28	9/24/2019	Chloride	mg/L	33.2	757	395

Notes:

mg/L - Milligram per liter
WWSF - Warm water sportfish

Table 3

Metals Results Relative to NR 105 Standards
Former City of Rhinelander Landfill - Slaughterhouse Creek
Rhinelander, Wisconsin

Sample Location	Sample Date	Parameter	Units	Result	WWSF Table 2 Calculated Standard	WWSF Table 6 Calculated Standard
SW-10	4/30/2019	Copper	µg/L	< 6.3	6.8	4.9
SW-10	4/30/2019	Lead	µg/L	7.6 J	45.93	12.03
SW-10	4/30/2019	Zinc	µg/L	18.0 J	56.02	56.02
SW-10	9/24/2019	Copper	µg/L	< 3.4	10.62	7.34
SW-10	9/24/2019	Lead	µg/L	< 5.9	72.51	18.99
SW-10	9/24/2019	Zinc	µg/L	< 11.6	84.7	84.7
SW-20	4/30/2019	Copper	µg/L	< 6.3	7.36	5.27
SW-20	4/30/2019	Lead	µg/L	< 5.9	49.86	13.06
SW-20	4/30/2019	Zinc	µg/L	< 11.6	60.34	60.34
SW-20	9/24/2019	Copper	µg/L	< 3.4	15.66	10.44
SW-20	9/24/2019	Lead	µg/L	< 5.9	107.96	28.28
SW-20	9/24/2019	Zinc	µg/L	12.4 J	121.43	121.43
SW-28	4/30/2019	Copper	µg/L	< 6.3	7.98	5.66
SW-28	4/30/2019	Lead	µg/L	6.1 J	54.09	14.17
SW-28	4/30/2019	Zinc	µg/L	13.6 J	64.97	64.97
SW-28	9/24/2019	Copper	µg/L	4.0 J	40.72	24.83
SW-28	9/24/2019	Lead	µg/L	< 5.9	287.15	75.21
SW-28	9/24/2019	Zinc	µg/L	< 11.6	294.35	294.35

Notes:

µg/L - Milligram per liter
WWSF - Warm water sportfish

Ammonia Results Relative to NR 105 Standards
Former City of Rhinelander Landfill - Slaughterhouse Creek
Rhinelander, Wisconsin

Sample Location	Sample Date	Parameter	Units	Result	Temperature (ºC)	pH	WWSF Table 2C Acute Calculated Standard	WWSF Table 4B 30-Day Calculated Standard	WWSF Table 4B Ammonia 4-Day Calculated Standard
SW-10	4/30/2019	Ammonia	mg/L	< 0.25	5.35	7.25	27.87	8.50	21.26
SW-10	9/24/2019	Ammonia	mg/L	< 0.25	15.05	8.13	6.56	1.93	4.84
SW-20	4/30/2019	Ammonia	mg/L	< 0.25	6.18	7.42	22.34	7.57	18.92
SW-20	9/24/2019	Ammonia	mg/L	1.2	17.60	8.07	7.36	1.80	4.50
SW-28	4/30/2019	Ammonia	mg/L	< 0.25	5.81	7.29	26.54	8.30	20.74
SW-28	9/24/2019	Ammonia	mg/L	87.7	18.31	6.70	44.57	5.05	12.61

Notes:

mg/L - Milligram per liter
WWSF - Warm water sportfish

Table 5

Current Monitoring Plan
Rhinelander Landfill
Rhinelander, Wisconsin

Sample Matrix	Field Parameters	Laboratory Parameters	Investigative Samples	QA Samples [1] Field Blanks	Field Duplicates	MS [2]	MSD [2]	Total Per Round	Current Sampling Frequency
Groundwater									
Semi-Annual Wells [3]	pH, Temperature, Conductivity, DO, Turbidity, ORP	VOCs+tetrahydrofuran, Alkalinity, Chloride, Hardness, Dissolved Metals[6] [7], Ammonia-N[8], Kjeldahl-N[8]	9	1	1	1	1	13	Semi-Annually
Annual Wells [4] [5]	pH, Temperature, Conductivity, DO, Turbidity, ORP	VOCs+tetrahydrofuran, Alkalinity, Chloride, Hardness, Dissolved Metals[6] [7], Ammonia-N[8], Kjeldahl-N[8]	11	1	1	-	-	13	Annually
Surface Water									
Surface Water [9]	pH, Temperature, Conductivity, DO, Turbidity, ORP	Fecal Coliform, Ammonia, Kjeldahl-N, NO3+NO2, COD, Chloride, Turbidity, Cu, Fe, Pb, Na, Zn, Hardness	3	-	-	-	-	3	Semi-Annually

Notes:

- Semi-Annual sampling will occur in April and October.
- Annual sampling will occur in October (along with a complete round of water level measurements).

1 One trip blank, which consists of a filled 40-mL preserved glass vial, shall be shipped with each cooler of VOC water samples.
2 For MS/MSD samples within a water matrix, triple the normal sample volumes will be collected.
3 Semi-Annual Wells currently include: 2A, 2B, 16A, 16B, 16C, 20A, 20B, 20C, 28A
4 Annual Wells currently include: 3A, 4A, 5A, 18A, 18B, 18C, 21A, 25B, 26B, 26C, 27B
5 Field Parameters are recorded for the following annual wells but are not sampled - 19B, 19C, 28B
6 Dissolved Metals will be field filtered and inlcude Iron, Manganese, and Boron
7 Only the following wells are sampled for dissolved Boron - 2A, 4A, 5A, 18C, 20A, 21A, 25B, 28A
8 Only the following wells are sampled for Ammonia-N and Kjeldahl-N - 2A, 3A, 21A
9 Upstream (Sample Point 10), Area 2 Restoration (Sample Point 28), Downstream at Newell St. Bridge (Sample Point 20)

Table 6

2019 Groundwater Elevation Summary
Rhinelander Landfill
Rhinelander, Wisconsin

Monitoring Well	Top of Casing Elevation	Groundwater Elevation September 2019
MW2A	1527.01	1524.46
MW2B	1528.04	1525.34
MW3A	1527.02	NA
MW4A	1551.28	1536.50
MW4B	1549.99	1536.54
MW5A	1549.13	1535.80
MW16A	1533.07	1524.90
MW16B	1532.85	1524.91
MW16C	1533.09	1524.94
MW18A	1529.83	1524.64
MW18B	1529.83	1524.95
MW18C	1529.76	1524.88
MW19A	1531.91	1523.81
MW19B	1532.16	1525.26
MW19C	1532.04	1525.35
MW20A	1529.35	1524.79
MW20B	1530.56	1525.36
MW20C	1530.34	1525.45
MW21A	1528.42	1524.74
MW25A	1544.85	1531.98
MW25B	1545.18	1529.47
MW26A	1529.95	1525.12
MW26B	1529.21	1525.22
MW26C	1530.06	1524.99
MW27A	1537.44	1525.85
MW27B	1536.52	1526.18
MW27C	1536.79	1527.29
MW28A	1529.04	1523.72
MW28B	1528.33	1525.98

Notes:

All elevations in feet above mean sea level (AMSL)
NA - Water level not collected in September 2019

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Boron (dissolved) ug/L	Hardness, calculation mg/L	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Alkalinity, total (as CaCO3) mg/L	Ammonia mg/L	Chloride mg/L	Total kjeldahl nitrogen (TKN) mg/L	1,1-Dichloroethane ug/L	1,2,4-Trimethylbenzene ug/L	1,3,5-Trimethylbenzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,4-Dichlorobenzene ug/L	Benzene ug/L	Chlorobenzene ug/L	Chloromethane (Methyl chloride) ug/L	cis-1,2-Dichloroethene ug/L	Cymene (p-Isopropyltoluene) ug/L
		WES	1000	- -	300	50	- -	9.7	250	- -	850	480		600	5	75	5	100	30	70	- -
		PAL	200	- -	150	25	- -	0.97	- -	- -	85	96		60	0.5	15	0.5	- -	3	7	- -
MW-2A	6/30/2016		1900	1080	64200	676	2300	287	67.5	284	< 1.23	4.2 J	3.2 J	< 5.0	< 5.0	< 5.0	34.6	< 5.0	< 5.0	< 5.0	< 5.0
MW-2A	6/30/2016	D	1880	1090	64300	676	2310	289	67.8	279	< 1.22	3.9 J	3.1 J	< 5.0	< 5.0	< 5.0	36.6	< 5.0	< 5.0	< 5.0	< 5.0
MW-2A	10/4/2016		2120	1100	60600	716	2150	271	72.4	276	< 1.21	2.9	2.1	< 1.0	< 1.0	1.8	29.2	1.7	< 1.0	< 1.0	< 1.0
MW-2A	10/4/2016	D	2050	1060	57300	641	2140	277	73.3	282	< 1.20	2.9	2.2	< 1.0	< 1.0	1.8	27.4	1.8	< 1.0	< 1.0	< 1.0
MW-2A	4/25/2017		1600	1140	64900	647	2320	266	77.2	259	< 1.19	1.4	1.1	< 1.0	< 1.0	0.80 J	16.1	0.77 J	0.77 J	< 1.0	< 1.0
MW-2A	10/11/2017		1430	879	49800	1050	1720	214	58.0	198	< 1.18	1.9	2.0	< 1.0	< 1.0	1.1	18.9	0.77 J	< 1.0	< 1.0	< 1.0
MW-2A	4/24/2018		1670	1040	56400	722	2220	256	69.1	263	< 1.17	3.4	2.8	< 2.0	< 2.0	1.5 J	27.3	1.4 J	< 2.0	< 2.0	< 2.0
MW-2A	10/22/2018		2090	1040	57800	625	2340	265	71.4	259	< 1.16	3.0	2.0 J	< 2.4	< 1.0	1.6 J	28.5	1.6 J	< 7.3	< 1.0	< 2.7
MW-2A	4/30/2019		677	499	58300	760	734	96.9	44.1	96.0	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	13.8	< 2.4	< 7.3	< 1.0	< 2.7
MW-2A	9/25/2019		1320	890	36800	1060	1660	198	57.0	192	< 1.0 J	1.4 J-	1.0 J-	< 2.4 J	< 1.0 J	< 3.1 J	17.7	0.76 J-	< 7.3 J	< 1.0 J	< 2.7 J
MW-2B	6/30/2016		--	179	21200	1200	226	--	28.7	--	< 1.15	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.77 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	10/4/2016		--	157	20000	1210	220	--	21.4	--	< 1.14	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.52 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	4/25/2017		--	187	22500	1200	227	--	31.3	--	< 1.13	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	10/11/2017		145	169	21100	1350	211	--	23.7	--	< 1.12	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.74 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	4/24/2018		--	142	12400	1160	168	--	17.0	--	< 1.11	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	10/22/2018		--	139	15500	1250	193	--	17.5	--	< 1.10	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.40 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-2B	4/30/2019		--	182	22200	1220	214	--	28.3	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.86 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-2B	9/25/2019		--	208	24600	1200	209	--	37.8	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.36 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-3A	10/4/2016		42.7 J	396	53300	4690	807	102	30.8	93.4	< 1.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.1	< 1.0	< 1.0	< 1.0	< 1.0
MW-3A	10/11/2017		44.3	365	48300	4750	704	86.4	28.5	75.6	< 1.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.8	< 1.0	7.0	< 1.0	< 1.0
MW-3A	10/22/2018		--	309	47800	3800	722	67.2	27.5	64.4	< 1.7	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	2.4	< 2.4	< 7.3	< 1.0	< 2.7
MW-4A	10/3/2016		14.5 J	110	< 100	< 5.0	123	--	1.2 J	--	< 1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-4A	10/10/2017		--	146	< 100	< 5.0	82.9	--	54.1	--	< 1.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-4A	10/23/2018		14.2 J	116	< 118	< 5.0	101	--	25.3	--	< 1.4	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-4A	10/23/2018	D	13.7 J	116	< 118	< 5.0	105	--	25.4	--	< 1.3	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-4A	9/24/2019		16.3 J	144	< 100	< 5.0	111	--	22.4	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	2.6 J	< 1.0	< 2.7

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Boron (dissolved) ug/L	Hardness, calculation mg/L	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Alkalinity, total (as CaCO3) mg/L	Ammonia mg/L	Chloride mg/L	Total kjeldahl nitrogen (TKN) mg/L	1,1-Dichloroethane ug/L	1,2,4-Trimethylbenzene ug/L	1,3,5-Trimethylbenzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,4-Dichlorobenzene ug/L	Benzene ug/L	Chlorobenzene ug/L	Chloromethane (Methyl chloride) ug/L	cis-1,2-Dichloroethene ug/L	Cymene (p-Isopropyltoluene) ug/L
		WES	1000	- -	300	50	- -	9.7	250	- -	850		480	600	5	75	5	100	30	70	- -
		PAL	200	- -	150	25	- -	0.97	- -	- -	85		96	60	0.5	15	0.5	- -	3	7	- -
MW-5A	10/3/2016		13.3 J	138	< 100	89.7	54.0	--	134	--	< 1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-5A	10/10/2017		--	312	< 100	609	51.0	--	281	--	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-5A	10/23/2018		15.6 J	828	< 118	2910	39.5	--	797	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-5A	9/24/2019		18.7 J	958	56.4 J	2490	21.1 J	--	1200	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-16A	6/29/2016		--	209	1320	4440	225	--	24.5	--	0.30 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.76 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-16A	10/3/2016		--	209	1550	4610	252	--	28.3	--	0.41 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	< 1.0	< 1.0	0.27 J	< 1.0
MW-16A	4/24/2017		--	202	1810	3970	222	--	24.6	--	0.29 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.82 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-16A	10/10/2017		--	237	2470	5220	258	--	31.0	--	0.46 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0
MW-16A	4/24/2018		--	168	2550	3260	165	--	20.1	--	0.24 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.75 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-16A	10/23/2018		--	126	1480	2470	139	--	14.8	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.43 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-16A	4/29/2019		--	201	3690	4100	211	--	25.8	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.76 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-16A	9/25/2019		--	249	5310	4430	225	--	28.7	--	0.41 J	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.1	< 2.4	3.7 J	< 1.0	< 2.7
MW-16A	9/25/2019	D	--	245	5540	4430	230	--	28.7	--	0.43 J	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.1	< 2.4	< 7.3	< 1.0	< 2.7
MW-16B	6/29/2016		--	216	36200	3760	234	--	32.9	--	0.40 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0
MW-16B	10/3/2016		--	205	35500	3400	242	--	34.9	--	0.28 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.5	0.53 J	< 1.0	< 1.0	< 1.0
MW-16B	10/3/2016	D	--	207	35400	3510	238	--	34.8	--	0.30 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.4	< 1.0	< 1.0	< 1.0	< 1.0
MW-16B	4/24/2017		--	236	39900	3690	257	--	38.6	--	0.29 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	0.52 J	< 1.0	< 1.0	< 1.0
MW-16B	10/10/2017		--	226	38800	4000	249	--	36.4	--	0.39 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	< 1.0	< 1.0	< 1.0	< 1.0
MW-16B	4/24/2018		--	227	37300	3520	225	--	37.2	--	0.27 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-16B	10/23/2018		--	240	38700	4130	261	--	39.2	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.3	< 2.4	< 7.3	< 1.0	< 2.7
MW-16B	4/29/2019		--	221	34400	3690	224	--	36.4	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.0 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-16B	4/29/2019	D	--	220	34100	3700	232	--	36.7	--	0.28 J	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-16B	9/25/2019		--	241	35600	3640	228	--	34.2	--	0.41 J	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.2	< 2.4	< 7.3	< 1.0	< 2.7
MW-16C	6/29/2016		--	221	24400	1940	245	--	34.6	--	0.35 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	0.51 J	< 1.0	< 1.0	< 1.0
MW-16C	10/3/2016		--	222	24800	1910	238	--	37.0	--	0.29 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.6	0.60 J	< 1.0	< 1.0	< 1.0
MW-16C	4/24/2017		--	232	26200	2050	257	--	39.7	--	0.27 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	0.59 J	< 1.0	< 1.0	< 1.0
MW-16C	10/10/2017		--	233	27100	2190	256	--	38.9	--	0.30 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	0.56 J	< 1.0	< 1.0	< 1.0

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Boron (dissolved) ug/L	Hardness, calculation mg/L	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Alkalinity, total (as CaCO3) mg/L	Ammonia mg/L	Chloride mg/L	Total kjeldahl nitrogen (TKN) mg/L	1,1-Dichloroethane ug/L	1,2,4-Trimethylbenzene ug/L	1,3,5-Trimethylbenzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,4-Dichlorobenzene ug/L	Benzene ug/L	Chlorobenzene ug/L	Chloromethane (Methyl chloride) ug/L	cis-1,2-Dichloroethene ug/L	Cymene (p-Isopropyltoluene) ug/L
		WES	1000	- -	300	50	- -	9.7	250	- -	850	480		600	5	75	5	100	30	70	- -
		PAL	200	- -	150	25	- -	0.97	- -	- -	85	96		60	0.5	15	0.5	- -	3	7	- -
MW-16C	4/24/2018		--	232	26700	2110	237	--	41.5	--	0.24 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	0.64 J	< 1.0	< 1.0	< 1.0
MW-16C	10/23/2018		--	241	28000	2280	266	--	43.7	--	0.30 J	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.5	< 2.4	< 7.3	< 1.0	< 2.7
MW-16C	4/29/2019		--	232	27200	2180	232	--	43.9	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.2	< 2.4	< 7.3	< 1.0	< 2.7
MW-16C	9/25/2019		--	252	28400	2160	239	--	40.2	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.1	< 2.4	< 7.3	< 1.0	< 2.7
MW-18A	10/3/2016		--	209	2290	1100	165	--	68.3	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.4	< 1.0
MW-18A	10/9/2017		--	236	2880	1020	181	--	67.6	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.2	< 1.0
MW-18A	10/23/2018		--	233	2050	1470	164	--	81.2	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	4.9	< 2.7
MW-18A	9/25/2019		--	271	2880	1180	177	--	71.6	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	4.1	< 2.7
MW-18B	10/3/2016		--	303	< 100	1640	165	--	137	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	< 1.0
MW-18B	10/9/2017		--	351	< 100	2030	201	--	157	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.57 J	< 1.0
MW-18B	10/23/2018		--	305	38.3 J	2110	306	--	51.5	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.54 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-18B	9/25/2019		--	395	30.7 J	2330	216	--	147	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	0.83 J	< 2.7
MW-18C	10/3/2016		90.9 J	351	14.3 J	1140	214	--	161	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.40 J	< 1.0
MW-18C	10/9/2017		--	334	< 100	1240	171	--	162	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.61 J	< 1.0
MW-18C	10/9/2017	D	59.2	326	< 100	1220	171	--	162	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.71 J	< 1.0
MW-18C	10/23/2018		141	315	< 118	1490	276	--	83.8	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.42 J	< 2.4	< 7.3	0.40 J	< 2.7
MW-18C	9/25/2019		60.8	356	< 100	1460	158	--	157	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	1.0	< 2.7
MW-20A	6/29/2016		689	198	76500	788	385	--	14.3 J	--	< 1.0	22.9	5.2	1.2	< 1.0	2.3	1.7	6.9	< 1.0	< 1.0	0.59 J
MW-20A	10/3/2016		812	238	102000	1040	408	--	19.5 J	--	< 1.0	24.8	5.6	1.0	< 1.0	2.4	3.1	8.4	< 1.0	< 1.0	< 1.0
MW-20A	4/24/2017		428	167	71200	755	299	--	8.4 J	--	< 1.0	17.7	3.6	0.53 J	< 1.0	1.6	1.2	3.6	< 1.0	< 1.0	< 1.0
MW-20A	10/10/2017		782	249	114000	1130	466	--	13.1	--	< 1.0	18.8	4.1	0.79 J	< 1.0	1.5	2.1	6.8	< 1.0	< 1.0	< 1.0
MW-20A	4/24/2018		398	143	69400	654	253	--	8.9 J	--	< 1.0	19.7	4.6	0.63 J	< 1.0	1.6	1.0 J	5.2	< 1.0	< 1.0	0.59 J
MW-20A	10/23/2018		611	180	80700	712	277	--	7.8 J	--	< 1.0	23.5	4.8	0.86 J	< 1.0	1.9 J	1.9	6.2	< 7.3	< 1.0	< 2.7
MW-20A	4/30/2019		505	175	75300	848	255	--	10.8	--	< 1.0	16.7	3.1	< 2.4	< 1.0	1.6 J	1.2	4.3	< 7.3	< 1.0	< 2.7
MW-20A	9/24/2019		813	264	115000	953	446	--	11.8	--	< 1.0	23.7	4.4	0.85 J	< 1.0	2.0 J	2.2	7.2	3.4 J	< 1.0	< 2.7
MW-20B	6/29/2016		--	164	17600	1140	160	--	40.4	--	< 1.55	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.63 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-20B	10/3/2016		--	156	17300	1060	153	--	44.2	--	< 1.54	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.90 J	< 1.0	< 1.0	< 1.0	< 1.0

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Boron (dissolved) ug/L	Hardness, calculation mg/L	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Alkalinity, total (as CaCO3) mg/L	Ammonia mg/L	Chloride mg/L	Total kjeldahl nitrogen (TKN) mg/L	1,1-Dichloroethane ug/L	1,2,4-Trimethylbenzene ug/L	1,3,5-Trimethylbenzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,4-Dichlorobenzene ug/L	Benzene ug/L	Chlorobenzene ug/L	Chloromethane (Methyl chloride) ug/L	cis-1,2-Dichloroethene ug/L	Cymene (p-Isopropyltoluene) ug/L
		WES	1000	- -	300	50	- -	9.7	250	- -	850	480		600	5	75	5	100	30	70	- -
		PAL	200	- -	150	25	- -	0.97	- -	- -	85	96		60	0.5	15	0.5	- -	3	7	- -
MW-20B	4/24/2017		--	167	18200	1090	162	--	45.7	--	< 1.53	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.70 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-20B	10/10/2017		128	162	15700	1120	146	--	46.8	--	< 1.52	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.68 J	0.55 J	< 1.0	< 1.0	< 1.0
MW-20B	4/24/2018		--	162	17600	1080	145	--	46.3	--	< 1.51	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.64 J	0.57 J	< 1.0	< 1.0	< 1.0
MW-20B	10/23/2018		--	160	17700	1100	158	--	47.7	--	< 1.50	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.74 J	0.77 J	< 7.3	< 1.0	< 2.7
MW-20B	4/30/2019		--	158	16800	1040	142	--	49.5	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.70 J	0.90 J	< 7.3	< 1.0	< 2.7
MW-20B	9/24/2019		--	169	17900	1030	140	--	43.9	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.67 J	0.97 J	< 7.3	< 1.0	< 2.7
MW-20C	6/29/2016		--	179	20900	1380	182	--	40.0	--	< 1.49	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.81 J	0.56 J	< 1.0	< 1.0	< 1.0
MW-20C	10/3/2016		--	173	20800	1360	189	--	39.3	--	< 1.48	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	0.83 J	< 1.0	< 1.0	< 1.0
MW-20C	4/24/2017		--	180	21400	1350	188	--	45.9	--	< 1.47	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.80 J	0.59 J	< 1.0	< 1.0	< 1.0
MW-20C	4/24/2017	D	--	183	21600	1410	370	--	46.3	--	< 1.46	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.86 J	0.60 J	< 1.0	< 1.0	< 1.0
MW-20C	10/10/2017		--	180	21300	1430	179	--	44.9	--	< 1.45	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.77 J	0.95 J	< 1.0	< 1.0	< 1.0
MW-20C	4/24/2018		--	183	21500	1400	183	--	46.9	--	< 1.44	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.90 J	0.74 J	< 1.0	< 1.0	< 1.0
MW-20C	10/23/2018		--	186	22000	1460	187	--	47.2	--	< 1.43	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.0	0.81 J	< 7.3	< 1.0	< 2.7
MW-20C	4/30/2019		--	188	22200	1460	176	--	49.1	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.94 J	0.72 J	< 7.3	< 1.0	< 2.7
MW-20C	9/24/2019		--	205	23400	1390	186	--	44.9	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.90 J	0.83 J	< 7.3	< 1.0	< 2.7
MW-21A	10/4/2016		1230	627	57900	1280	1810	265	60.4	264	< 1.42	4.4	1.7	< 1.0	< 1.0	1.8	4.6	5.5	< 1.0	< 1.0	< 1.0
MW-21A	10/11/2017		1220	732	39600	1220	1820	267	56.0	254	< 1.41	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	5.4 J	< 10.0	< 10.0	< 10.0
MW-21A	10/22/2018		1110	738	57300	1200	1830	232	46.8	230	< 1.40	5.0	2.2 J	< 2.4	< 1.0	1.9 J	4.7	7.1	< 7.3	< 1.0	< 2.7
MW-21A	9/25/2019		1180	805	53600	1050	1710	224	46.3	212	< 1.0	3.5	1.8 J	< 2.4	< 1.0	1.9 J	4.2	6.7	< 7.3	< 1.0	< 2.7
MW-25B	10/4/2016		24.1 J	260	21900	594	135	--	15.1	--	< 1.39	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-25B	10/10/2017		< 40.0	174	< 100	193	156	--	16.8	--	< 1.38	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-25B	10/23/2018		< 40.0	166	< 118	190	163	--	16.5	--	< 1.37	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-25B	9/24/2019		11.4 J	187	73.6 J	41.4	148	--	16.8	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-26B	10/3/2016		--	189	54.5 J	100	178	--	12.0	--	< 1.36	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-26B	10/9/2017		--	197	457	666	183	--	12.4	--	< 1.35	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-26B	10/23/2018		--	21.4	10700	984	40.7	--	88.0	--	< 1.34	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-26B	9/25/2019		--	216	1410	633	182	--	12.2	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Boron (dissolved) ug/L	Hardness, calculation mg/L	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Alkalinity, total (as CaCO3) mg/L	Ammonia mg/L	Chloride mg/L	Total kjeldahl nitrogen (TKN) mg/L	1,1-Dichloroethane ug/L	1,2,4-Trimethylbenzene ug/L	1,3,5-Trimethylbenzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,4-Dichlorobenzene ug/L	Benzene ug/L	Chlorobenzene ug/L	Chloromethane (Methyl chloride) ug/L	cis-1,2-Dichloroethene ug/L	Cymene (p-Isopropyltoluene) ug/L
		WES	1000	- -	300	50	- -	9.7	250	- -	850	480		600	5	75	5	100	30	70	- -
		PAL	200	- -	150	25	- -	0.97	- -	- -	85	96		60	0.5	15	0.5	- -	3	7	- -
MW-26C	10/3/2016		--	226	1040	2720	227	--	20.8	--	< 1.33	< 1.0	< 1.0	< 1.0	0.29 J	< 1.0	0.96 J	< 1.0	< 1.0	0.70 J	< 1.0
MW-26C	10/9/2017		--	241	1050	2830	227	--	22.8	--	< 1.32	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.86 J	< 1.0	< 1.0	0.61 J	< 1.0
MW-26C	10/23/2018		--	235	930	2600	232	--	22.8	--	< 1.31	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.95 J	< 2.4	< 7.3	0.61 J	< 2.7
MW-26C	9/25/2019		--	256	1440	2500	216	--	22.5	--	0.80 J	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.92 J	< 2.4	< 7.3	0.47 J	< 2.7
MW-27B	10/4/2016		--	86.5	54.6 J	155	77.3	--	4.5	--	< 1.30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-27B	10/10/2017		--	91.8	48.3 J	179	81.8	--	4.7	--	< 1.29	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-27B	10/23/2018		--	89.6	41.2 J	175	79.7	--	5.0	--	< 1.28	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-27B	9/25/2019		--	99.6	52.5 J	170	77.1	--	5.5	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-28A	6/30/2016		283	312	5680	548	314	--	25.1	--	< 1.27	< 1.0	< 1.0	< 1.0	< 1.0	1.1	0.99 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-28A	10/4/2016		70.5 J	125	7420	2220	127	--	76.7	--	< 1.26	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-28A	10/10/2017		210	245	7200	1640	298	--	22.1	--	< 1.25	< 1.0	< 1.0	< 1.0	< 1.0	0.85 J	0.64 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-28A	10/22/2018		242	298	4940	604	323	--	20.3	--	< 1.24	< 2.8	< 2.9	< 2.4	< 1.0	1.0 J	1.3	< 2.4	< 7.3	< 1.0	< 2.7
MW-28A	9/25/2019		154	204	6730	1580	213	--	33.3	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.55 J	< 2.4	< 7.3	< 1.0	< 2.7

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Dichlorodifluoromethane (CFC-12) ug/L	Isopropyl benzene ug/L	m&p-Xylenes ug/L	o-Xylene ug/L	Methylene chloride ug/L	Naphthalene ug/L	N-Butylbenzene ug/L	N-Propylbenzene ug/L	Tetrachloroethene ug/L	Tetrahydrofuran ug/L	Toluene ug/L	Trichloroethene ug/L	Vinyl chloride ug/L
		WES	1000	- -	2000		5	100	- -	- -	5	50	800	5	0.2
		PAL	200	- -	400		0.5	10	- -	- -	0.5	10	160	0.5	0.02
MW-2A	6/30/2016		< 5.0	< 5.0	8.5 J	< 5.0	< 5.0	< 25.0	< 5.0	< 5.0	< 5.0	210	< 5.0	< 5.0	< 5.0
MW-2A	6/30/2016	D	< 5.0	0.75 J	8.5 J	< 5.0	< 5.0	< 25.0	< 5.0	< 5.0	< 5.0	202	< 5.0	< 5.0	< 5.0
MW-2A	10/4/2016		< 1.0	0.55 J	6.1	0.72 J	< 1.0	4.4 J	< 1.0	0.67 J	< 1.0	239	0.53 J	< 1.0	< 1.0
MW-2A	10/4/2016	D	< 1.0	0.58 J	6.3	0.77 J	< 1.0	4.7 J	< 1.0	0.68 J	< 1.0	217	< 1.0	< 1.0	< 1.0
MW-2A	4/25/2017		< 1.0	0.29 J	3.2	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	184	< 1.0	< 1.0	< 1.0
MW-2A	10/11/2017		< 1.0	0.35 J	2.3	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	133	< 1.0	< 1.0	< 1.0
MW-2A	4/24/2018		< 2.0	0.55 J	5.7	< 2.0	< 2.0	< 10.0	< 2.0	< 2.0	< 2.0	185	< 2.0	< 2.0	< 2.0
MW-2A	10/22/2018		< 5.0	0.48 J	6.1	0.58 J	< 5.0	4.2 J	< 2.4	< 5.0	< 1.1	216	0.32 J	< 1.0	< 1.0
MW-2A	4/30/2019		< 5.0	< 5.0	1.5 J	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	85.9	0.19 J	< 1.0	< 1.0
MW-2A	9/25/2019		< 5.0 J	< 5.0 J	2.1	0.51 J-	< 5.0 J	3.9 J-	< 2.4 J	< 5.0 J	< 1.1 J	157	0.35 J-	< 1.0 J	< 1.0 J
MW-2B	6/30/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	17.2	< 1.0	< 1.0	0.59 J
MW-2B	10/4/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	14.5	< 1.0	< 1.0	< 1.0
MW-2B	4/25/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	19.0	< 1.0	< 1.0	0.40 J
MW-2B	10/11/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	10.6	< 1.0	< 1.0	< 1.0
MW-2B	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	7.3	< 1.0	< 1.0	< 1.0
MW-2B	10/22/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	8.9 J	< 5.0	< 1.0	< 1.0
MW-2B	4/30/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	16.0 J	< 5.0	< 1.0	0.42 J
MW-2B	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	9.3 J	< 5.0	< 1.0	< 1.0
MW-3A	10/4/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	177	< 1.0	< 1.0	0.22 J
MW-3A	10/11/2017		< 1.0	< 1.0	< 2.0	< 1.0	1.0	< 5.0	< 1.0	< 1.0	< 1.0	82.7	< 1.0	< 1.0	< 1.0
MW-3A	10/22/2018		< 5.0	< 5.0	1.6 J	< 1.0	< 5.0	1.2 J	< 2.4	< 5.0	< 1.1	90.1	0.19 J	< 1.0	< 1.0
MW-4A	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-4A	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-4A	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-4A	10/23/2018	D	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-4A	9/24/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Dichlorodifluoromethane (CFC-12) ug/L	Isopropyl benzene ug/L	m&p-Xylenes ug/L	o-Xylene ug/L	Methylene chloride ug/L	Naphthalene ug/L	N-Butylbenzene ug/L	N-Propylbenzene ug/L	Tetrachloroethene ug/L	Tetrahydrofuran ug/L	Toluene ug/L	Trichloroethene ug/L	Vinyl chloride ug/L
		WES	1000	- -	2000		5	100	- -	- -	5	50	800	5	0.2
		PAL	200	- -	400		0.5	10	- -	- -	0.5	10	160	0.5	0.02
MW-5A	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-5A	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-5A	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-5A	9/24/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-16A	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.2
MW-16A	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	2.0
MW-16A	4/24/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.71 J
MW-16A	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.1
MW-16A	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.34 J
MW-16A	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	0.27 J
MW-16A	4/29/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-16A	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	1.1
MW-16A	9/25/2019	D	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	1.1
MW-16B	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	4.6 J	< 1.0	< 1.0	0.59 J
MW-16B	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	7.0	< 1.0	< 1.0	0.57 J
MW-16B	10/3/2016	D	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	6.9	< 1.0	< 1.0	0.56 J
MW-16B	4/24/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	11.5	< 1.0	< 1.0	< 1.0
MW-16B	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	7.6	< 1.0	< 1.0	0.24 J
MW-16B	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	7.2	< 1.0	< 1.0	< 1.0
MW-16B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	8.3 J	< 5.0	< 1.0	< 1.0
MW-16B	4/29/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	0.24 J
MW-16B	4/29/2019	D	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	0.22 J
MW-16B	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	2.8 J	< 5.0	< 1.0	0.27 J
MW-16C	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	2.6 J	< 1.0	< 1.0	< 1.0	11.9	< 1.0	< 1.0	0.39 J
MW-16C	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	3.1 J	< 1.0	< 1.0	< 1.0	18.2	< 1.0	< 1.0	0.34 J
MW-16C	4/24/2017		< 1.0	< 1.0	1.1 J	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	15.9	< 1.0	< 1.0	0.24 J
MW-16C	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	12.9	< 1.0	< 1.0	0.22 J

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Dichlorodifluoromethane (CFC-12) ug/L	Isopropyl benzene ug/L	m&p-Xylenes ug/L	o-Xylene ug/L	Methylene chloride ug/L	Naphthalene ug/L	N-Butylbenzene ug/L	N-Propylbenzene ug/L	Tetrachloroethene ug/L	Tetrahydrofuran ug/L	Toluene ug/L	Trichloroethene ug/L	Vinyl chloride ug/L
		WES	1000	- -	2000		5	100	- -	- -	5	50	800	5	0.2
		PAL	200	- -	400		0.5	10	- -	- -	0.5	10	160	0.5	0.02
MW-16C	4/24/2018		< 1.0	< 1.0	1.4 J	< 1.0	< 1.0	3.3 J	< 1.0	< 1.0	< 1.0	15.6	< 1.0	< 1.0	0.29 J
MW-16C	10/23/2018		< 5.0	< 5.0	1.6 J	< 1.0	< 5.0	4.5 J	< 2.4	< 5.0	< 1.1	16.6 J	< 5.0	< 1.0	0.35 J
MW-16C	4/29/2019		< 5.0	< 5.0	0.89 J	< 1.0	< 5.0	1.8 J	< 2.4	< 5.0	< 1.1	9.0 J	< 5.0	< 1.0	0.26 J
MW-16C	9/25/2019		< 5.0	< 5.0	0.75 J	< 1.0	< 5.0	3.6 J	< 2.4	< 5.0	< 1.1	8.2 J	< 5.0	< 1.0	0.29 J
MW-18A	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	0.94 J	0.27 J
MW-18A	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	1.7	0.36 J
MW-18A	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	3.9	0.22 J
MW-18A	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	3.7	0.31 J
MW-18B	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.86 J	< 5.0	< 1.0	22.1	< 1.0
MW-18B	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.1	< 5.0	< 1.0	10.7	< 1.0
MW-18B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	4.0 J	< 5.0	2.2	< 1.0
MW-18B	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	0.72 J	< 20.0	< 5.0	7.5	< 1.0
MW-18C	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.61 J	< 5.0	< 1.0	5.2	0.23 J
MW-18C	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.3	< 5.0	< 1.0	13.7	< 1.0
MW-18C	10/9/2017	D	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.2	< 5.0	< 1.0	15.1	< 1.0
MW-18C	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	0.35 J	3.1 J	< 5.0	6.1	< 1.0
MW-18C	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	0.84 J	< 20.0	< 5.0	16.7	< 1.0
MW-20A	6/29/2016		< 1.0	4.7	82.5	3.3	< 1.0	19.5	1.4	3.5	< 1.0	10.7	< 1.0	< 1.0	< 1.0
MW-20A	10/3/2016		< 1.0	4.4	72.0	2.2	< 1.0	21.0	1.6	3.6	< 1.0	18.7	< 1.0	< 1.0	< 1.0
MW-20A	4/24/2017		< 1.0	2.7	40.8	1.3	< 1.0	11.0	< 1.0	2.1	< 1.0	6.8	< 1.0	< 1.0	< 1.0
MW-20A	10/10/2017		< 1.0	3.3	46.5	1.0	< 1.0	12.9	< 1.0	2.3	< 1.0	9.6	< 1.0	< 1.0	< 1.0
MW-20A	4/24/2018		< 1.0	3.5	50.6	1.1	< 1.0	12.5	1.4	2.4	< 1.0	7.5	< 1.0	< 1.0	< 1.0
MW-20A	10/23/2018		< 5.0	4.0 J	56.4	1.6	< 5.0	18.0	< 2.4	3.0 J	< 1.1	8.7 J	0.38 J	< 1.0	< 1.0
MW-20A	4/30/2019		< 5.0	3.2 J	39.4	1.0	< 5.0	10.7	1.0 J	2.2 J	< 1.1	6.8 J	0.18 J	< 1.0	< 1.0
MW-20A	9/24/2019		< 5.0	4.3 J	53.0	1.6	< 5.0	18.3	< 2.4	2.9 J	< 1.1	12.4 J	0.35 J	< 1.0	< 1.0
MW-20B	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	15.4	< 1.0	< 1.0	< 1.0	12.2	< 1.0	< 1.0	0.76 J
MW-20B	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	11.9	< 1.0	< 1.0	< 1.0	14.5	< 1.0	< 1.0	0.69 J

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Dichlorodifluoromethane (CFC-12) ug/L	Isopropyl benzene ug/L	m&p-Xylenes ug/L	o-Xylene ug/L	Methylene chloride ug/L	Naphthalene ug/L	N-Butylbenzene ug/L	N-Propylbenzene ug/L	Tetrachloroethene ug/L	Tetrahydrofuran ug/L	Toluene ug/L	Trichloroethene ug/L	Vinyl chloride ug/L
		WES	1000	- -	2000		5	100	- -	- -	5	50	800	5	0.2
		PAL	200	- -	400		0.5	10	- -	- -	0.5	10	160	0.5	0.02
MW-20B	4/24/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	11.6	< 1.0	< 1.0	< 1.0	14.5	< 1.0	< 1.0	0.54 J
MW-20B	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	6.9	< 1.0	< 1.0	< 1.0	5.9	< 1.0	< 1.0	< 1.0
MW-20B	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	10.6	< 1.0	< 1.0	< 1.0	15.2	< 1.0	< 1.0	0.48 J
MW-20B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	12.3	< 2.4	< 5.0	< 1.1	11.0 J	< 5.0	< 1.0	0.43 J
MW-20B	4/30/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	6.7	< 2.4	< 5.0	< 1.1	8.0 J	< 5.0	< 1.0	0.25 J
MW-20B	9/24/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	6.4	< 2.4	< 5.0	< 1.1	5.4 J	< 5.0	< 1.0	0.19 J
MW-20C	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	8.3	< 1.0	< 1.0	< 1.0	8.1	< 1.0	< 1.0	1.1
MW-20C	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	6.2	< 1.0	< 1.0	< 1.0	12.2	< 1.0	< 1.0	1.2
MW-20C	4/24/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	6.7	< 1.0	< 1.0	< 1.0	7.1	< 1.0	< 1.0	0.84 J
MW-20C	4/24/2017	D	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	6.7	< 1.0	< 1.0	< 1.0	7.5	< 1.0	< 1.0	0.81 J
MW-20C	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	5.6	< 1.0	< 1.0	< 1.0	6.4	< 1.0	< 1.0	< 1.0
MW-20C	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	8.9	< 1.0	< 1.0	< 1.0	14.1	< 1.0	< 1.0	0.78 J
MW-20C	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	7.7	< 2.4	< 5.0	< 1.1	10.6 J	< 5.0	< 1.0	0.84 J
MW-20C	4/30/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	5.1	< 2.4	< 5.0	< 1.1	12.3 J	< 5.0	< 1.0	0.80 J
MW-20C	9/24/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	5.5	< 2.4	< 5.0	< 1.1	11.5 J	< 5.0	< 1.0	0.64 J
MW-21A	10/4/2016		< 1.0	0.44 J	10.3	3.0	< 1.0	5.8	< 1.0	0.67 J	< 1.0	285	0.82 J	< 1.0	< 1.0
MW-21A	10/11/2017		< 10.0	< 10.0	< 20.0	< 10.0	< 10.0	< 50.0	< 10.0	< 10.0	< 10.0	189	< 10.0	5.4 J	< 10.0
MW-21A	10/22/2018		< 5.0	0.68 J	10.6	2.1	< 5.0	14.0	< 2.4	0.86 J	< 1.1	130	0.71 J	< 1.0	< 1.0
MW-21A	9/25/2019		< 5.0	0.60 J	6.8	1.7	< 5.0	8.2	< 2.4	0.93 J	< 1.1	208	0.65 J	< 1.0	< 1.0
MW-25B	10/4/2016		0.53 J	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.83 J
MW-25B	10/10/2017		0.47 J	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.4
MW-25B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	1.6
MW-25B	9/24/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	1.4
MW-26B	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-26B	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-26B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-26B	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	2.9 J	< 5.0	< 1.0	0.52 J

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Dichlorodifluoromethane (CFC-12) ug/L	Isopropyl benzene ug/L	m&p-Xylenes ug/L	o-Xylene ug/L	Methylene chloride ug/L	Naphthalene ug/L	N-Butylbenzene ug/L	N-Propylbenzene ug/L	Tetrachloroethene ug/L	Tetrahydrofuran ug/L	Toluene ug/L	Trichloroethene ug/L	Vinyl chloride ug/L
		WES	1000	- -	2000		5	100	- -	- -	5	50	800	5	0.2
		PAL	200	- -	400		0.5	10	- -	- -	0.5	10	160	0.5	0.02
MW-26C	10/3/2016		0.36 J	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	4.6
MW-26C	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	4.8
MW-26C	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	5.1
MW-26C	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	16.3 J	< 5.0	< 1.0	3.7
MW-27B	10/4/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-27B	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-27B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-27B	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-28A	6/30/2016		< 1.0	0.15 J	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	59.3	< 1.0	< 1.0	2.4
MW-28A	10/4/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	11.3	< 1.0	< 1.0	< 1.0
MW-28A	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	19.0	< 1.0	< 1.0	1.5
MW-28A	10/22/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	29.4	< 5.0	< 1.0	1.0
MW-28A	9/25/2019		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	10.1 J	< 5.0	< 1.0	0.84 J

Notes:

WES	- Wisconsin Enforcement Standard
PAL	- Preventative Action Limit
	- Outlined cells exceed WES
ug/L	- Micograms per Liter
mg/L	- Milligrams per Liter
D	- Duplicate Sample
J-	- Estimated Concentration, may be biased low
J	- Estimated Concentration

Appendix A
Surface Water Sampling Laboratory Reports and Data Validation

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

October 08, 2019

Grant Anderson
GHD Services; St. Paul
1801 Old Highway 8 Northwest
Suite 114
Saint Paul, MN 55112

RE: Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

Dear Grant Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

Green Bay Certification IDs

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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40195833001	**W-190924-RA-SW-20**	Water	09/24/19 12:50	09/25/19 09:30
40195833002	**W-190924-RA-SW-28**	Water	09/24/19 13:01	09/25/19 09:30
40195833003	**W-190924-RA-SW-10**	Water	09/24/19 13:20	09/25/19 09:30

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40195833001	**W-190924-RA-SW-20**	EPA 6010	TXW	6
		SM 9222D	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1
40195833002	**W-190924-RA-SW-28**	EPA 6010	TXW	6
		SM 9222D	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1
40195833003	**W-190924-RA-SW-10**	EPA 6010	TXW	6
		SM 9222D	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1

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ANALYTICAL RESULTS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

Sample: W-190924-RA-SW-20 **Lab ID: 40195833001** Collected: 09/24/19 12:50 Received: 09/25/19 09:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<3.4**	ug/L	11.2	3.4	1	09/30/19 13:22	10/01/19 19:11	7440-50-8	
Iron	**5320**	ug/L	117	35.2	1	09/30/19 13:22	10/01/19 19:11	7439-89-6	
Lead	**<5.9**	ug/L	19.7	5.9	1	09/30/19 13:22	10/01/19 19:11	7439-92-1	
Sodium	**25300**	ug/L	1170	350	1	09/30/19 13:22	10/01/19 19:11	7440-23-5	
Total Hardness by 2340B	**101**	mg/L	2.0	0.15	1	09/30/19 13:22	10/01/19 19:11		
Zinc	**12.4J**	ug/L	40.0	11.6	1	09/30/19 13:22	10/01/19 19:11	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**29.3**	CFU/100 mL	2.4	2.4	2.44	09/25/19 11:50	09/25/19 11:50		H3
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**59.8**	mg/L	10.0	2.5	5		09/27/19 15:45	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**1.2**	mg/L	0.50	0.25	1		09/26/19 17:34	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**1.6**	mg/L	0.73	0.22	1	09/27/19 11:35	09/27/19 18:22	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.23J**	mg/L	0.25	0.095	1		09/25/19 13:28		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**19.7J**	mg/L	44.8	13.4	1	10/02/19 07:55	10/02/19 10:42		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

Sample: W-190924-RA-SW-28 **Lab ID: 40195833002** Collected: 09/24/19 13:01 Received: 09/25/19 09:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**4.0J**	ug/L	11.2	3.4	1	09/30/19 13:22	10/01/19 19:13	7440-50-8	
Iron	**12900**	ug/L	117	35.2	1	09/30/19 13:22	10/01/19 19:13	7439-89-6	
Lead	**<5.9**	ug/L	19.7	5.9	1	09/30/19 13:22	10/01/19 19:13	7439-92-1	
Sodium	**40200**	ug/L	1170	350	1	09/30/19 13:22	10/01/19 19:13	7440-23-5	
Total Hardness by 2340B	**278**	mg/L	2.0	0.15	1	09/30/19 13:22	10/01/19 19:13		
Zinc	**<11.6**	ug/L	40.0	11.6	1	09/30/19 13:22	10/01/19 19:13	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**18.0**	CFU/100 mL	9.0	9.0	9.01	09/25/19 11:50	09/25/19 11:50		H3
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**33.2**	mg/L	2.0	0.50	1		09/27/19 16:00	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**87.7**	mg/L	5.0	2.5	10		09/26/19 18:11	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**80.2**	mg/L	7.3	2.2	10	09/27/19 11:35	09/27/19 18:42	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.21J**	mg/L	0.25	0.095	1		09/25/19 13:29		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**90.6**	mg/L	44.8	13.4	1	10/02/19 07:55	10/02/19 10:42		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

Sample: W-190924-RA-SW-10 **Lab ID: 40195833003** Collected: 09/24/19 13:20 Received: 09/25/19 09:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<3.4**	ug/L	11.2	3.4	1	09/30/19 13:22	10/01/19 19:16	7440-50-8	
Iron	**5150**	ug/L	117	35.2	1	09/30/19 13:22	10/01/19 19:16	7439-89-6	
Lead	**<5.9**	ug/L	19.7	5.9	1	09/30/19 13:22	10/01/19 19:16	7439-92-1	
Sodium	**21200**	ug/L	1170	350	1	09/30/19 13:22	10/01/19 19:16	7440-23-5	
Total Hardness by 2340B	**66.9**	mg/L	2.0	0.15	1	09/30/19 13:22	10/01/19 19:16		
Zinc	**<11.6**	ug/L	40.0	11.6	1	09/30/19 13:22	10/01/19 19:16	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**29.4**	CFU/100 mL	2.0	2.0	1.96	09/25/19 11:50	09/25/19 11:50		H3
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**42.8**	mg/L	2.0	0.50	1		09/27/19 16:20	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**<0.25**	mg/L	0.50	0.25	1		09/26/19 17:37	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**0.48J**	mg/L	0.73	0.22	1	09/27/19 11:35	09/27/19 18:25	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.10J**	mg/L	0.25	0.095	1		09/25/19 13:29		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**30.4J**	mg/L	44.8	13.4	1	10/02/19 07:55	10/02/19 10:42		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

QC Batch: 335792 Analysis Method: SM 9222D
QC Batch Method: SM 9222D Analysis Description: 9222D MICRO Fecal Coliform by MF
Associated Lab Samples: 40195833001, 40195833002, 40195833003

METHOD BLANK: 1949895 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1.00	1.0	09/25/19 11:50	

METHOD BLANK: 1949897 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1.00	1.0	09/25/19 11:50	

METHOD BLANK: 1949898 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1.00	1.0	09/25/19 15:45	

METHOD BLANK: 1949899 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1.00	1.0	09/25/19 16:20	

SAMPLE DUPLICATE: 1949896

Parameter	Units	40195833001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fecal Coliforms	CFU/100 mL	29.3	31.7			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

QC Batch: 335727 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 40195833001, 40195833002, 40195833003

METHOD BLANK: 1949603 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	<3.4	11.2	10/01/19 18:45	
Iron	ug/L	<35.2	117	10/01/19 18:45	
Lead	ug/L	<5.9	19.7	10/01/19 18:45	
Sodium	ug/L	<350	1170	10/01/19 18:45	
Total Hardness by 2340B	mg/L	<0.15	2.0	10/01/19 18:45	
Zinc	ug/L	<11.6	40.0	10/01/19 18:45	

LABORATORY CONTROL SAMPLE: 1949604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	500	487	97	80-120	
Iron	ug/L	5000	5180	104	80-120	
Lead	ug/L	500	517	103	80-120	
Sodium	ug/L	5000	5110	102	80-120	
Total Hardness by 2340B	mg/L		34.3			
Zinc	ug/L	500	529	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1949605 1949606

Parameter	Units	40195789001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	80.7	500	500	581	567	100	97	75-125	2	20	
Iron	ug/L	23000	5000	5000	27200	27600	84	92	75-125	1	20	
Lead	ug/L	<5.9	500	500	510	489	101	97	75-125	4	20	
Sodium	ug/L	483000	5000	5000	481000	487000	-48	72	75-125	1	20	P6
Total Hardness by 2340B	mg/L	934000 ug/L			933	949				2	20	
Zinc	ug/L	92.2	500	500	588	582	99	98	75-125	1	20	

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

QC Batch: 335263 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40195833001, 40195833002, 40195833003

METHOD BLANK: 1946255 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	09/26/19 20:09	

LABORATORY CONTROL SAMPLE: 1946256

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.6	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1946257 1946258

Parameter	Units	40195838001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	63.7	200	200	284	285	110	111	90-110	0	15	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1946259 1946260

Parameter	Units	40195844001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	26.1	20	20	47.0	47.0	105	105	90-110	0	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

QC Batch: 335378 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 40195833001, 40195833002, 40195833003

METHOD BLANK: 1946965 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.25	0.50	09/26/19 17:29	

LABORATORY CONTROL SAMPLE: 1946966

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1946967 1946968

Parameter	Units	40195314001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	<0.25	10	10	9.9	9.9	98	98	90-110	0	20	

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

QC Batch: 335536 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 40195833001, 40195833002, 40195833003

METHOD BLANK: 1947756 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.22	0.73	09/27/19 18:09	

LABORATORY CONTROL SAMPLE: 1947757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	4.7	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1947758 1947759

Parameter	Units	40195833001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	1.6	5	5	6.3	6.5	94	99	90-110	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1947760 1947761

Parameter	Units	40195844001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	0.48J	5	5	5.1	5.0	93	90	90-110	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

QC Batch: 335242 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 40195833001, 40195833002, 40195833003

METHOD BLANK: 1946181 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	<0.095	0.25	09/25/19 13:21	

LABORATORY CONTROL SAMPLE: 1946182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.6	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1946183 1946184

Parameter	Units	40195833003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	0.10J	2.5	2.5	2.4	2.4	93	94	90-110	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

QC Batch: 335973 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 40195833001, 40195833002, 40195833003

METHOD BLANK: 1950948 Matrix: Water
Associated Lab Samples: 40195833001, 40195833002, 40195833003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<13.4	44.8	10/02/19 10:41	

LABORATORY CONTROL SAMPLE: 1950949

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	493	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950950 1950951

Parameter	Units	40195451001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	97.6	526	526	632	625	101	100	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950952 1950953

Parameter	Units	40195844001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	29.7J	526	526	550	548	99	98	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

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

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40195833

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40195833001	**W-190924-RA-SW-20**	EPA 3010	335727	EPA 6010	335870
40195833002	**W-190924-RA-SW-28**	EPA 3010	335727	EPA 6010	335870
40195833003	**W-190924-RA-SW-10**	EPA 3010	335727	EPA 6010	335870
40195833001	**W-190924-RA-SW-20**	SM 9222D	335791	SM 9222D	335792
40195833002	**W-190924-RA-SW-28**	SM 9222D	335791	SM 9222D	335792
40195833003	**W-190924-RA-SW-10**	SM 9222D	335791	SM 9222D	335792
40195833001	**W-190924-RA-SW-20**	EPA 300.0	335263		
40195833002	**W-190924-RA-SW-28**	EPA 300.0	335263		
40195833003	**W-190924-RA-SW-10**	EPA 300.0	335263		
40195833001	**W-190924-RA-SW-20**	EPA 350.1	335378		
40195833002	**W-190924-RA-SW-28**	EPA 350.1	335378		
40195833003	**W-190924-RA-SW-10**	EPA 350.1	335378		
40195833001	**W-190924-RA-SW-20**	EPA 351.2	335536	EPA 351.2	335601
40195833002	**W-190924-RA-SW-28**	EPA 351.2	335536	EPA 351.2	335601
40195833003	**W-190924-RA-SW-10**	EPA 351.2	335536	EPA 351.2	335601
40195833001	**W-190924-RA-SW-20**	EPA 353.2	335242		
40195833002	**W-190924-RA-SW-28**	EPA 353.2	335242		
40195833003	**W-190924-RA-SW-10**	EPA 353.2	335242		
40195833001	**W-190924-RA-SW-20**	EPA 410.4	335973	EPA 410.4	336057
40195833002	**W-190924-RA-SW-28**	EPA 410.4	335973	EPA 410.4	336057
40195833003	**W-190924-RA-SW-10**	EPA 410.4	335973	EPA 410.4	336057

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

40195833

(Please Print Clearly)	
Company Name:	GHD
Branch/Location:	St. Paul
Project Contact:	Grant Anderson
Phone:	651-639-0913
Project Number:	11115796-40
Project Name:	Rhinelander LF
Project State:	WI
Sampled By (Print):	Ryan Aarnot
Sampled By (Sign):	
PO #:	550W
Regulatory Program:	

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	See 550W
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analysis Requested: Fecal Coliform	COD	Ammonia, TKN, NFN	Chloride	Metals: Hardness	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					Y/N	Pick Letter								
001	W-190924-RA-SW-20	9/24/19	1250	SW	N	A	✓	✓	✓	✓	✓	Sample times are not on bottles	101	
002	W-190924-RA-SW-28	↓	1301	↓	N	C	✓	✓	✓	✓	✓			
003	W-190924-RA-SW-10	↓	1320	↓	N	A	✓	✓	✓	✓	✓			
						D								

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	1350 9/24/19		
Fedex	9/25/19 0930		9/25/19 0930

PACE Project No.: 40195833
Receipt Temp = 10.1 °C
Sample Receipt pH: OK / Adjusted
Cooler Custody Seal: Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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

Sample Preservation Receipt Form

Client Name: GWP Project # 40195833

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

Lab Lot# of pH paper: 160508A1 Lab Std #ID of preservation (if pH adjusted):

Initial when completed: [illegible] Date/Time:

	Glass							Plastic							Vials						Jars			General							
Pace Lab #	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001											✓		✓	✓										✓				✓			✓		2.5 / 5 / 10
002											✓		✓	✓										✓				✓			✓		2.5 / 5 / 10
003											✓		✓	✓										✓				✓			✓		2.5 / 5 / 10
004	✓																																2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																			[illegible]														2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	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**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40195833

40195833

Client Name: GHD

Courier: ☐ CS Logistics ☑ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other:

Tracking #: 8142 2608 2162

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 - NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: R01 /Corr:

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Person examining contents:
Date: 9/25/19
Initials:

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time: DM 9/25/19	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑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:

Project Manager Review: ALG for DM **Date:** 9/25/19

Memorandum

December 19, 2019

To:	Ryan Aamot, GHD	Ref. No.:	11115796-30
From:	Grant Anderson/sb/3	Tel:	(651) 639-0913

Subject: **Analytical Results and Reduced Data Validation**
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site – Rhinelander, Wisconsin
September 2019

1. Introduction

The following document details a reduced validation of analytical results for groundwater and surface water samples collected in support of the monitoring event at the Rhinelander Landfill Site in Rhinelander, Wisconsin during September 2019. Samples were submitted to Pace Analytical Services, Inc. (Pace), located in Green Bay, Wisconsin. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Tables 2A and 2B. A summary of the analytical methodology is presented in Table 3.

Standard GHD Services, Inc. (GHD) report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spike samples (MS), and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

i) "National Functional Guidelines for Organic Superfund Methods Data Review," EPA-540-R-2017-002, January 2017

ii) "National Functional Guidelines for Inorganic Superfund Methods Data Review," EPA-540-R-2017-001, January 2017

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 3. The sample chain of custody documents and analytical reports were used to determine sample holding times. With the exception of fecal coliform bacteria analyses, all samples were analyzed within the required holding times. Table 4 lists the holding time exceedances. Associated sample data are qualified as noted in the table.

All samples were properly preserved and delivered on ice, and stored by the laboratory at the required temperature (0-6°C). The vial used for VOC analysis of sample MW-2A contained an air bubble greater than 6mm. As a result, the associated sample results are qualified estimated as noted in Table 5.

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

Laboratory method blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

Hardness and chloride were detected in the method blanks. However, in both cases the associated sample results were sufficiently high enough that qualification of data was not necessary. The remaining method blank results were non-detect.

4. Surrogate Spike Recoveries

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries were within the laboratory control limits.

5. Laboratory Control Sample (LCS) Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

LCS were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Organic Analyses

The LCS contained all compounds of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1. The laboratory performed additional site-specific MS/MSD analyses internally.

Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the acceptance criteria, demonstrating acceptable analytical accuracy and precision.

Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within acceptance criteria, demonstrating acceptable analytical accuracy and precision.

7. Field QA/QC Samples

The field QA/QC samples consisted of one trip blank sample, one field blank sample and one field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank sample was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

Field Blank Sample Analysis

To assess ambient conditions at the site and cleanliness of sample containers, a field blank was submitted for analysis, as identified in Table 1. With the exception of hardness and toluene, all results were non-detect for the analytes of interest. Associated hardness results were sufficiently high enough and toluene was not detected in any associated samples; therefore, no qualification of data was necessary based on analytes detected in the field blank.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample set was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters											Comments
					VOC	Select Metals (total)	Select Metals (dissolved)	Hardness	Fecal Coliforms	Chloride	Alkalinity	Ammonia	Total Kjeldahl Nitrogen	Chemical Oxygen Demand	Nitrate/Nitrite	
W-190924-RA-SW-20	SW-20	water	09/24/2019	12:50		x		x	x	x		x	x	x	x	
W-190924-RA-SW-28	SW-28	water	09/24/2019	13:01		x		x	x	x		x	x	x	x	
W-190924-RA-SW-10	SW-10	water	09/24/2019	13:20		x		x	x	x		x	x	x	x	
MW-20C	MW-20C	water	09/24/2019	16:00	x		x	x		x	x					
MW-20B	MW-20B	water	09/24/2019	16:02	x		x	x		x	x					
MW-4A	MW-4A	water	09/24/2019	14:16	x		x	x		x	x					
MW-5A	MW-5A	water	09/24/2019	14:35	x		x	x		x	x					
MW-25B	MW-25B	water	09/24/2019	15:28	x		x	x		x	x					
MW-20A	MW-20A	water	09/24/2019	16:11	x		x	x		x	x					
MW-16A	MW-16A	water	09/25/2019	09:44	x		x	x		x	x					
MW-16A DUP	MW-16A DUP	water	09/25/2019	09:44	x		x	x		x	x					Duplicate (MW-16A)
MW-16B	MW-16B	water	09/25/2019	09:44	x		x	x		x	x					
FIELD BLANK	FIELD BLANK	water	09/25/2019	09:44	x		x	x		x	x					Field Blank
MW-16C	MW-16C	water	09/25/2019	10:07	x		x	x		x	x					MS/MSD
MW-18A	MW-18A	water	09/25/2019	10:26	x		x	x		x	x					
MW-18B	MW-18B	water	09/25/2019	10:23	x		x	x		x	x					
MW-18C	MW-18C	water	09/25/2019	11:38	x		x	x		x	x					
MW-26B	MW-26B	water	09/25/2019	11:09	x		x	x		x	x					

Table 1

Sample Collection and Analysis Summary
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters											Comments
					VOC	Select Metals (total)	Select Metals (dissolved)	Hardness	Fecal Coliforms	Chloride	Alkalinity	Ammonia	Total Kjeldahl Nitrogen	Chemical Oxygen Demand	Nitrate/Nitrite	
MW-26C	MW-26C	water	09/25/2019	11:10	x		x	x		x	x					
MW-28A	MW-28A	water	09/25/2019	12:32	x		x	x		x	x					
MW-27B	MW-27B	water	09/25/2019	12:36	x		x	x		x	x					
MW-21A	MW-21A	water	09/25/2019	13:44	x		x	x		x	x	x	x			
MW-2A	MW-2A	water	09/25/2019	14:06	x		x	x		x	x	x	x			
MW-2B	MW-2B	water	09/25/2019	14:30	x		x	x		x	x					
TRIP BLANK	TRIP BLANK	water	09/25/2019	00:00	x											Trip Blank

Notes:

VOC - Volatile Organic Compounds
MS/MSD - Matrix Spike/Matrix Spike Duplicate

Table 2A

Validated Analytical Results Summary - Groundwater
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Location ID:		MW-2A	MW-2B	MW-4A	MW-5A	MW-16A	MW-16A	MW-16B	MW-16C	MW-18A	MW-18B	MW-18C	MW-20A
Sample Name:		MW-2A	MW-2B	MW-4A	MW-5A	MW-16A	MW-16A DUP	MW-16B	MW-16C	MW-18A	MW-18B	MW-18C	MW-20A
Sample Date:		09/25/2019	09/25/2019	09/24/2019	09/24/2019	09/25/2019	09/25/2019 Duplicate	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/24/2019
Parameters	**Unit**												
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	0.41 J	0.43 J	0.41 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	µg/L	1.8 UJ	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
1,2,3-Trichlorobenzene	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	µg/L	1.4 J-	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	23.7
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.9 UJ	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	2.8 UJ	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
1,2-Dichlorobenzene	µg/L	2.4 UJ	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.85 J
1,2-Dichloroethane	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 J-	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	4.4
1,3-Dichlorobenzene	µg/L	2.1 UJ	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
1,3-Dichloropropane	µg/L	2.8 UJ	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
1,4-Dichlorobenzene	µg/L	3.1 UJ	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	2.0 J
2,2-Dichloropropane	µg/L	7.6 UJ	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U
2-Chlorotoluene	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Phenylbutane (sec-Butylbenzene)	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	µg/L	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Benzene	µg/L	17.7	0.36 J	1.0 U	1.0 U	1.1	1.1	1.2	1.1	1.0 U	1.0 U	1.0 U	2.2
Bromobenzene	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.2 UJ	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Bromoform	µg/L	13.2 UJ	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U
Bromomethane (Methyl bromide)	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	0.76 J-	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	7.2
Chlorobromomethane	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2A

Validated Analytical Results Summary - Groundwater
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Location ID:		MW-2A	MW-2B	MW-4A	MW-5A	MW-16A	MW-16A	MW-16B	MW-16C	MW-18A	MW-18B	MW-18C	MW-20A
Sample Name:		MW-2A	MW-2B	MW-4A	MW-5A	MW-16A	MW-16A DUP	MW-16B	MW-16C	MW-18A	MW-18B	MW-18C	MW-20A
Sample Date:		09/25/2019	09/25/2019	09/24/2019	09/24/2019	09/25/2019	09/25/2019 Duplicate	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/24/2019
Parameters	**Unit**												
Volatile Organic Compounds													
Chloroethane	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	7.3 UJ	7.3 U	2.6 J	7.3 U	3.7 J	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	3.4 J
cis-1,2-Dichloroethene	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.1	0.83 J	1.0	1.0 U
cis-1,3-Dichloropropene	µg/L	12.1 UJ	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U
Cymene (p-Isopropyltoluene)	µg/L	2.7 UJ	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Dibromochloromethane	µg/L	8.7 UJ	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U
Dibromomethane	µg/L	3.1 UJ	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diisopropyl ether	µg/L	6.3 UJ	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U
Ethylbenzene	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropyl benzene	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.3 J
m&p-Xylenes	µg/L	2.1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.75 J	2.0 U	2.0 U	2.0 U	53.0
Methyl tert butyl ether (MTBE)	µg/L	4.2 UJ	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U
Methylene chloride	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Butylbenzene	µg/L	2.4 UJ	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
N-Propylbenzene	µg/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.9 J
Naphthalene	µg/L	3.9 J-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.6 J	5.0 U	5.0 U	5.0 U	18.3
o-Xylene	µg/L	0.51 J-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6
Styrene	µg/L	1.6 UJ	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
tert-Butylbenzene	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.1 UJ	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.72 J	0.84 J	1.1 U
Tetrahydrofuran	µg/L	157	9.3 J	20.0 U	20.0 U	20.0 U	20.0 U	2.8 J	8.2 J	20.0 U	20.0 U	20.0 U	12.4 J
Toluene	µg/L	0.35 J-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.35 J
trans-1,2-Dichloroethene	µg/L	3.6 UJ	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
trans-1,3-Dichloropropene	µg/L	14.6 UJ	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U
Trichloroethene	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.7	7.5	16.7	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.1	1.1	0.27 J	0.29 J	0.31 J	1.0 U	1.0 U	1.0 U

Table 2A

Validated Analytical Results Summary - Groundwater
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Location ID:		MW-2A	MW-2B	MW-4A	MW-5A	MW-16A	MW-16A	MW-16B	MW-16C	MW-18A	MW-18B	MW-18C	MW-20A
Sample Name:		MW-2A	MW-2B	MW-4A	MW-5A	MW-16A	MW-16A DUP	MW-16B	MW-16C	MW-18A	MW-18B	MW-18C	MW-20A
Sample Date:		09/25/2019	09/25/2019	09/24/2019	09/24/2019	09/25/2019	09/25/2019 Duplicate	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/24/2019
Parameters	**Unit**												
Metals													
Hardness, calculation	mg/L	890	208	144	958	249	245	241	252	271	395	356	264
Boron (dissolved)	µg/L	1320	--	16.3 J	18.7 J	--	--	--	--	--	--	60.8	813
Iron (dissolved)	µg/L	36800	24600	100 U	56.4 J	5310	5540	35600	28400	2880	30.7 J	100 U	115000
Manganese (dissolved)	µg/L	1060	1200	5.0 U	2490	4430	4430	3640	2160	1180	2330	1460	953
General Chemistry													
Alkalinity, total (as CaCO3)	mg/L	1660	209	111	21.1 J	225	230	228	239	177	216	158	446
Ammonia	mg/L	198	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	57.0	37.8	22.4	1200	28.7	28.7	34.2	40.2	71.6	147	157	11.8
Total kjeldahl nitrogen (TKN)	mg/L	192	--	--	--	--	--	--	--	--	--	--	--

Note:

U - Not detected at the associated reporting limit
J - Estimated concentration
J- - Estimated concentration, may be biased low
UJ - Not detected; associated reporting limit is estimated

Table 2A

Validated Analytical Results Summary - Groundwater
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Location ID:	MW-20B	MW-20C	MW-21A	MW-25B	MW-26B	MW-26C	MW-27B	MW-28A
Sample Name:	MW-20B	MW-20C	MW-21A	MW-25B	MW-26B	MW-26C	MW-27B	MW-28A
Sample Date:	09/24/2019	09/24/2019	09/25/2019	09/24/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.80 J	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	µg/L	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
1,2,3-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	µg/L	2.8 U	2.8 U	3.5	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
1,2-Dichlorobenzene	µg/L	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	2.9 U	2.9 U	1.8 J	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U
1,3-Dichlorobenzene	µg/L	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
1,3-Dichloropropane	µg/L	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
1,4-Dichlorobenzene	µg/L	3.1 U	3.1 U	1.9 J	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
2,2-Dichloropropane	µg/L	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U
2-Chlorotoluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Phenylbutane (sec-Butylbenzene)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Benzene	µg/L	0.67 J	0.90 J	4.2	1.0 U	1.0 U	0.92 J	1.0 U	0.55 J
Bromobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Bromoform	µg/L	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	0.97 J	0.83 J	6.7	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Chlorobromomethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2A

Validated Analytical Results Summary - Groundwater
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Location ID:		**MW-20B**	**MW-20C**	**MW-21A**	**MW-25B**	**MW-26B**	**MW-26C**	**MW-27B**	**MW-28A**
Sample Name:		**MW-20B**	**MW-20C**	**MW-21A**	**MW-25B**	**MW-26B**	**MW-26C**	**MW-27B**	**MW-28A**
Sample Date:		**09/24/2019**	**09/24/2019**	**09/25/2019**	**09/24/2019**	**09/25/2019**	**09/25/2019**	**09/25/2019**	**09/25/2019**
Parameters	**Unit**								
Volatile Organic Compounds									
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.47 J	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U
Cymene (p-Isopropyltoluene)	µg/L	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Dibromochloromethane	µg/L	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U
Dibromomethane	µg/L	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diisopropyl ether	µg/L	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U	0.60 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m&p-Xylenes	µg/L	2.0 U	2.0 U	6.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Butylbenzene	µg/L	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
N-Propylbenzene	µg/L	5.0 U	5.0 U	0.93 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	µg/L	6.4	5.5	8.2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	µg/L	1.0 U	1.0 U	1.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
tert-Butylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Tetrahydrofuran	µg/L	5.4 J	11.5 J	208	20.0 U	2.9 J	16.3 J	20.0 U	10.1 J
Toluene	µg/L	5.0 U	5.0 U	0.65 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
trans-1,3-Dichloropropene	µg/L	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	0.19 J	0.64 J	1.0 U	1.4	0.52 J	3.7	1.0 U	0.84 J

Table 2A

Validated Analytical Results Summary - Groundwater
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Location ID:	MW-20B	MW-20C	MW-21A	MW-25B	MW-26B	MW-26C	MW-27B	MW-28A
Sample Name:	MW-20B	MW-20C	MW-21A	MW-25B	MW-26B	MW-26C	MW-27B	MW-28A
Sample Date:	09/24/2019	09/24/2019	09/25/2019	09/24/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019
Parameters	**Unit**							
Metals								
Hardness, calculation	mg/L	169	205	805	187	216	256	99.6	204
Boron (dissolved)	µg/L	--	--	1180	11.4 J	--	--	--	154
Iron (dissolved)	µg/L	17900	23400	53600	73.6 J	1410	1440	52.5 J	6730
Manganese (dissolved)	µg/L	1030	1390	1050	41.4	633	2500	170	1580
General Chemistry								
Alkalinity, total (as CaCO3)	mg/L	140	186	1710	148	182	216	77.1	213
Ammonia	mg/L	--	--	224	--	--	--	--	--
Chloride	mg/L	43.9	44.9	46.3	16.8	12.2	22.5	5.5	33.3
Total kjeldahl nitrogen (TKN)	mg/L	--	--	212	--	--	--	--	--

Note:

U - Not detected at the associated reporting limit
J - Estimated concentration
J- - Estimated concentration, may be biased low
UJ - Not detected; associated reporting limit is estimat

Table 2B

Validated Analytical Results Summary - Surface Water
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Location ID:		**SW-10**	**SW-20**	**SW-28**
Sample Name:		**W-190924-RA-SW-10**	**W-190924-RA-SW-20**	**W-190924-RA-SW-28**
Sample Date:		**09/24/2019**	**09/24/2019**	**09/24/2019**
Parameters	**Unit**			
Metals				
Hardness, calculation	mg/L	66.9	101	278
Copper	µg/L	11.2 U	11.2 U	4.0 J
Iron	µg/L	5150	5320	12900
Lead	µg/L	19.7 U	19.7 U	19.7 U
Sodium	µg/L	21200	25300	40200
Zinc	µg/L	40.0 U	12.4 J	40.0 U
General Chemistry				
Fecal coliform bacteria	cfu/100mL	29.4 J	29.3 J	18.0 J
Ammonia	mg/L	0.50 U	1.2	87.7
Chemical oxygen demand (COD)	mg/L	30.4 J	19.7 J	90.6
Chloride	mg/L	42.8	59.8	33.2
Nitrite/Nitrate	mg/L	0.10 J	0.23 J	0.21 J
Total kjeldahl nitrogen (TKN)	mg/L	0.48 J	1.6	80.2

Note:

U - Not detected at the associated reporting limit
J - Estimated concentration

Table 3

Analytical Methods
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Parameter	Method	Matrix	Holding Time: Collection to Extraction (days)	Holding Time: Collection or Extraction to Analysis (days)
Volatile Organic Compounds (VOC)	SW-846 8260	Water	-	14
Select Metals	SW-846 6010	Water	-	180
Select Metals, dissolved	SW-846 6010	Water	-	180
Hardness	SM 2340B	Water	-	180
Fecal Coliforms	SM 9222D	Water	-	6 hours
Chloride	EPA 300.0	Water	-	28
Ammonia	EPA 350.1	Water	-	28
Total Kjeldahl Nitrogen (TKN)	EPA 351.2	Water	-	28
Chemical Oxygen Demand (COD)	EPA 410.4	Water	-	28
Nitrate/Nitrite	EPA 353.2	Water	-	28
Alkalinity	EPA 310.2	Water	-	14

Notes:

Method References:
SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
SM - "Standard Methods For the Examination of Water and Wastewater"
EPA - "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions

Table 4

Qualified Sample Results Due to Holding Time Exceedance
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Parameter	Sample ID	Holding Time (hours)	Holding Time Criteria (hours)	Analyte	Qualified Sample Results	Units
Fecal coliform bacteria	SW-20	24	6	Fecal coliform bacteria	29.3 J	cfu/100mL
	SW-28	24	6	Fecal coliform bacteria	18.0 J	cfu/100mL
	SW-10	25	6	Fecal coliform bacteria	29.4 J	cfu/100mL

Notes:

J - Estimated concentration

Table 5

Qualified Sample Data Due to Air Bubble - VOC Analysis
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Parameter	Sample ID	Air Bubble Size (mm)	Required Size (mm)	Analyte	Qualified Result	Units
VOC	MW-2A	>6	<6	1,1,1,2-Tetrachloroethane	1.0 UJ	ug/L
				1,1,1-Trichloroethane	1.0 UJ	ug/L
				1,1,2,2-Tetrachloroethane	1.0 UJ	ug/L
				1,1,2-Trichloroethane	5.0 UJ	ug/L
				1,1-Dichloroethane	1.0 UJ	ug/L
				1,1-Dichloroethene	1.0 UJ	ug/L
				1,1-Dichloropropene	1.8 UJ	ug/L
				1,2,3-Trichlorobenzene	5.0 UJ	ug/L
				1,2,3-Trichloropropane	5.0 UJ	ug/L
				1,2,4-Trichlorobenzene	5.0 UJ	ug/L
				1,2,4-Trimethylbenzene	1.4 J-	ug/L
				1,2-Dibromo-3-chloropropane (DBCP)	5.9 UJ	ug/L
				1,2-Dibromoethane (Ethylene dibromide)	2.8 UJ	ug/L
				1,2-Dichlorobenzene	2.4 UJ	ug/L
				1,2-Dichloroethane	1.0 UJ	ug/L
				1,2-Dichloropropane	1.0 UJ	ug/L
				1,3,5-Trimethylbenzene	1.0 J-	ug/L
				1,3-Dichlorobenzene	2.1 UJ	ug/L
				1,3-Dichloropropane	2.8 UJ	ug/L
				1,4-Dichlorobenzene	3.1 UJ	ug/L
				2,2-Dichloropropane	7.6 UJ	ug/L
				2-Chlorotoluene	5.0 UJ	ug/L
				2-Phenylbutane (sec-Butylbenzene)	5.0 UJ	ug/L
				4-Chlorotoluene	2.5 UJ	ug/L
				Bromobenzene	1.0 UJ	ug/L
				Bromodichloromethane	1.2 UJ	ug/L
				Bromoform	13.2 UJ	ug/L
				Bromomethane (Methyl bromide)	5.0 UJ	ug/L
				Carbon tetrachloride	1.0 UJ	ug/L
				Chlorobenzene	0.76 J-	ug/L
				Chlorobromomethane	5.0 UJ	ug/L
				Chloroethane	5.0 UJ	ug/L
				Chloroform (Trichloromethane)	5.0 UJ	ug/L

Table 5

Qualified Sample Data Due to Air Bubble - VOC Analysis
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site
Rhinelander, Wisconsin
September 2019

Parameter	Sample ID	Air Bubble Size (mm)	Required Size (mm)	Analyte	Qualified Result	Units
				Chloromethane (Methyl chloride)	7.3 UJ	ug/L
				cis-1,2-Dichloroethene	1.0 UJ	ug/L
				cis-1,3-Dichloropropene	12.1 UJ	ug/L
				Cymene (p-Isopropyltoluene)	2.7 UJ	ug/L
				Dibromochloromethane	8.7 UJ	ug/L
				Dibromomethane	3.1 UJ	ug/L
				Dichlorodifluoromethane (CFC-12)	5.0 UJ	ug/L
				Diisopropyl ether	6.3 UJ	ug/L
				Ethylbenzene	1.0 UJ	ug/L
				Hexachlorobutadiene	5.0 UJ	ug/L
				Isopropyl benzene	5.0 UJ	ug/L
				Methyl tert butyl ether (MTBE)	4.2 UJ	ug/L
				Methylene chloride	5.0 UJ	ug/L
				N-Butylbenzene	2.4 UJ	ug/L
				N-Propylbenzene	5.0 UJ	ug/L
				Naphthalene	3.9 J-	ug/L
				o-Xylene	0.51 J-	ug/L
				Styrene	1.6 UJ	ug/L
				tert-Butylbenzene	1.0 UJ	ug/L
				Tetrachloroethene	1.1 UJ	ug/L
				Toluene	0.35 J-	ug/L
				trans-1,2-Dichloroethene	3.6 UJ	ug/L
				trans-1,3-Dichloropropene	14.6 UJ	ug/L
				Trichloroethene	1.0 UJ	ug/L
				Trichlorofluoromethane (CFC-11)	1.0 UJ	ug/L
				Vinyl chloride	1.0 UJ	ug/L

Notes:

VOC - Volatile Organic Compounds
J- - Estimated concentration, may be biased low
UJ - Not detected; associated reporting limit is estimated

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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May 14, 2019

Grant Anderson
GHD Services; St. Paul
1801 Old Highway 8 Northwest
Suite 114
Saint Paul, MN 55112

RE: Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

Dear Grant Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
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Green Bay, WI 54302
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CERTIFICATIONS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

Green Bay Certification IDs

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

Pace Analytical Services, LLC
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(920)469-2436

SAMPLE SUMMARY

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186778001	**SW-20**	Water	04/30/19 11:40	05/01/19 10:05
40186778002	**SW-28**	Water	04/30/19 11:50	05/01/19 10:05
40186778003	**SW-10**	Water	04/30/19 12:30	05/01/19 10:05

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SAMPLE ANALYTE COUNT

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186778001	**SW-20**	EPA 6010	TXW	6
		SM 9222D	KTS	1
		EPA 180.1	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1
40186778002	**SW-28**	EPA 6010	TXW	6
		SM 9222D	KTS	1
		EPA 180.1	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1
40186778003	**SW-10**	EPA 6010	TXW	6
		SM 9222D	KTS	1
		EPA 180.1	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1

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ANALYTICAL RESULTS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

Sample: SW-20 **Lab ID: 40186778001** Collected: 04/30/19 11:40 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<6.3**	ug/L	20.0	6.3	1	05/03/19 07:18	05/06/19 17:18	7440-50-8	
Iron	**2280**	ug/L	246	73.9	1	05/03/19 07:18	05/06/19 17:18	7439-89-6	
Lead	**<5.9**	ug/L	19.7	5.9	1	05/03/19 07:18	05/06/19 17:18	7439-92-1	
Sodium	**21100**	ug/L	1530	458	1	05/03/19 07:18	05/06/19 17:18	7440-23-5	
Total Hardness by 2340B	**45.4**	mg/L	2.0	0.15	1	05/03/19 07:18	05/06/19 17:18		
Zinc	**<11.6**	ug/L	40.0	11.6	1	05/03/19 07:18	05/06/19 17:18	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**2.00**	CFU/100 mL	2.0	2.0	2	05/01/19 13:33	05/01/19 13:33		H3
180.1 Turbidity	Analytical Method: EPA 180.1								
Turbidity	**9.1**	NTU	1.8	0.55	1		05/01/19 14:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**44.2**	mg/L	10.0	2.5	5		05/09/19 17:04	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**<0.25**	mg/L	0.50	0.25	1		05/09/19 17:33	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**0.51J**	mg/L	0.73	0.22	1	05/08/19 11:10	05/08/19 16:31	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.14J**	mg/L	0.25	0.095	1		05/08/19 13:18		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**25.2J**	mg/L	47.2	14.2	1	05/09/19 08:26	05/09/19 10:48		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

Sample: SW-28 **Lab ID: 40186778002** Collected: 04/30/19 11:50 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<6.3**	ug/L	20.0	6.3	1	05/03/19 07:18	05/06/19 17:20	7440-50-8	
Iron	**2760**	ug/L	246	73.9	1	05/03/19 07:18	05/06/19 17:20	7439-89-6	
Lead	**6.1J**	ug/L	19.7	5.9	1	05/03/19 07:18	05/06/19 17:20	7439-92-1	B
Sodium	**20000**	ug/L	1530	458	1	05/03/19 07:18	05/06/19 17:20	7440-23-5	
Total Hardness by 2340B	**49.4**	mg/L	2.0	0.15	1	05/03/19 07:18	05/06/19 17:20		
Zinc	**13.6J**	ug/L	40.0	11.6	1	05/03/19 07:18	05/06/19 17:20	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**5.71**	CFU/100 mL	2.9	2.9	2.86	05/01/19 13:33	05/01/19 13:33		H3
180.1 Turbidity	Analytical Method: EPA 180.1								
Turbidity	**12.0**	NTU	1.8	0.55	1		05/01/19 14:46		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.5**	mg/L	2.0	0.50	1		05/09/19 17:18	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**<0.25**	mg/L	0.50	0.25	1		05/09/19 17:36	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**0.63J**	mg/L	0.73	0.22	1	05/08/19 11:10	05/08/19 16:34	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.13J**	mg/L	0.25	0.095	1		05/08/19 13:19		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**29.7J**	mg/L	47.2	14.2	1	05/09/19 08:26	05/09/19 10:49		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

Sample: SW-10 **Lab ID: 40186778003** Collected: 04/30/19 12:30 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<6.3**	ug/L	20.0	6.3	1	05/03/19 07:18	05/06/19 17:23	7440-50-8	
Iron	**2650**	ug/L	246	73.9	1	05/03/19 07:18	05/06/19 17:23	7439-89-6	
Lead	**7.6J**	ug/L	19.7	5.9	1	05/03/19 07:18	05/06/19 17:23	7439-92-1	B
Sodium	**17900**	ug/L	1530	458	1	05/03/19 07:18	05/06/19 17:23	7440-23-5	
Total Hardness by 2340B	**41.7**	mg/L	2.0	0.15	1	05/03/19 07:18	05/06/19 17:23		
Zinc	**18.0J**	ug/L	40.0	11.6	1	05/03/19 07:18	05/06/19 17:23	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**28.0**	CFU/100 mL	2.0	2.0	2	05/01/19 13:33	05/01/19 13:33		H3
180.1 Turbidity	Analytical Method: EPA 180.1								
Turbidity	**12.3**	NTU	1.8	0.55	1		05/01/19 14:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**42.4**	mg/L	2.0	0.50	1		05/09/19 17:33	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**<0.25**	mg/L	0.50	0.25	1		05/09/19 17:37	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**0.78**	mg/L	0.73	0.22	1	05/08/19 11:10	05/08/19 16:34	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.12J**	mg/L	0.25	0.095	1		05/08/19 13:21		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**30.4J**	mg/L	44.8	13.4	1	05/09/19 08:26	05/09/19 10:49		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

QC Batch: 320083 Analysis Method: SM 9222D
QC Batch Method: SM 9222D Analysis Description: 9222D MICRO Fecal Coliform by MF
Associated Lab Samples: 40186778001, 40186778002, 40186778003

METHOD BLANK: 1859279 Matrix: Water
Associated Lab Samples: 40186778001, 40186778002, 40186778003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1.00	1.0	05/01/19 13:33	

METHOD BLANK: 1860572 Matrix: Water
Associated Lab Samples: 40186778001, 40186778002, 40186778003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1.00	1.0	05/01/19 13:33	

SAMPLE DUPLICATE: 1859280

Parameter	Units	40186778001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fecal Coliforms	CFU/100 mL	2.00	<2.86			

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

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

QC Batch: 320257 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 40186778001, 40186778002, 40186778003

METHOD BLANK: 1860728 Matrix: Water
Associated Lab Samples: 40186778001, 40186778002, 40186778003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	<6.3	20.0	05/06/19 16:55	
Iron	ug/L	<73.9	246	05/06/19 16:55	
Lead	ug/L	8.0J	19.7	05/06/19 16:55	
Sodium	ug/L	<458	1530	05/06/19 16:55	
Total Hardness by 2340B	mg/L	0.38J	2.0	05/06/19 16:55	
Zinc	ug/L	<11.6	40.0	05/06/19 16:55	

LABORATORY CONTROL SAMPLE: 1860729

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	500	495	99	80-120	
Iron	ug/L	5000	5120	102	80-120	
Lead	ug/L	500	459	92	80-120	
Sodium	ug/L	5000	5120	102	80-120	
Total Hardness by 2340B	mg/L		33.6			
Zinc	ug/L	500	479	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1860730 1860731

Parameter	Units	40186783001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	67.6	500	500	576	571	102	101	75-125	1	20	
Iron	ug/L	0.62 mg/L	5000	5000	5730	5740	102	102	75-125	0	20	
Lead	ug/L	6.8J	500	500	467	474	92	94	75-125	2	20	
Sodium	ug/L	14.6 mg/L	5000	5000	20400	20200	116	111	75-125	1	20	
Total Hardness by 2340B	mg/L	167			210	207				2	20	
Zinc	ug/L	<11.6	500	500	491	494	97	98	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

QC Batch: 320055 Analysis Method: EPA 180.1
QC Batch Method: EPA 180.1 Analysis Description: 180.1 Turbidity
Associated Lab Samples: 40186778001, 40186778002, 40186778003

METHOD BLANK: 1859416 Matrix: Water
Associated Lab Samples: 40186778001, 40186778002, 40186778003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Turbidity	NTU	<0.55	1.8	05/01/19 14:40	

LABORATORY CONTROL SAMPLE: 1859417

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Turbidity	NTU	524	525	100	80-120	

SAMPLE DUPLICATE: 1859418

Parameter	Units	40186778001 Result	Dup Result	RPD	Max RPD	Qualifiers
Turbidity	NTU	9.1	8.4	9	10	

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

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

QC Batch: 320208 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40186778001, 40186778002, 40186778003

METHOD BLANK: 1860332 Matrix: Water
Associated Lab Samples: 40186778001, 40186778002, 40186778003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	05/09/19 14:08	

LABORATORY CONTROL SAMPLE: 1860333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.6	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1860334 1860335

Parameter	Units	40186739001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10300	10000	10000	20800	22000	105	117	90-110	5	15	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1860336 1860337

Parameter	Units	40186800002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	25.8	20	20	47.0	47.0	106	106	90-110	0	15	

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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

QC Batch: 320872 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 40186778001, 40186778002, 40186778003

METHOD BLANK: 1863724 Matrix: Water
Associated Lab Samples: 40186778001, 40186778002, 40186778003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.25	0.50	05/09/19 17:31	

LABORATORY CONTROL SAMPLE: 1863725

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863726 1863727

Parameter	Units	40186778001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	<0.25	10	10	9.4	9.2	93	91	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863728 1863729

Parameter	Units	40187208001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	1.0	10	10	10.4	10.5	94	95	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

QC Batch: 320730 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 40186778001, 40186778002, 40186778003

METHOD BLANK: 1862845 Matrix: Water
Associated Lab Samples: 40186778001, 40186778002, 40186778003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.22	0.73	05/08/19 16:20	

LABORATORY CONTROL SAMPLE: 1862846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	4.7	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862847 1862848

Parameter	Units	40186657001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	200	50	50	236	236	72	72	90-110	0	20	P6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862849 1862850

Parameter	Units	40186778001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	0.51J	5	5	5.1	5.2	93	93	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

QC Batch: 320716 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 40186778001, 40186778002, 40186778003

METHOD BLANK: 1862738 Matrix: Water
Associated Lab Samples: 40186778001, 40186778002, 40186778003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	<0.095	0.25	05/08/19 13:13	

LABORATORY CONTROL SAMPLE: 1862739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.3	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862740 1862741

Parameter	Units	40187060001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	4.1	2.5	2.5	6.7	6.7	101	104	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862742 1862743

Parameter	Units	40186864014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	0.14J	2.5	2.5	2.5	2.5	96	96	90-110	0	20	

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

REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

QC Batch: 320813 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 40186778001, 40186778002, 40186778003

METHOD BLANK: 1863497 Matrix: Water
Associated Lab Samples: 40186778001, 40186778002, 40186778003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<13.4	44.8	05/09/19 10:47	

LABORATORY CONTROL SAMPLE: 1863498

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	501	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863499 1863500

Parameter	Units	40186778001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	25.2J	526	526	528	537	95	97	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863501 1863502

Parameter	Units	40186778002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	29.7J	526	526	537	530	96	95	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

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

B	Analyte was detected in the associated method blank.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40186778

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186778001	**SW-20**	EPA 3010	320257	EPA 6010	320366
40186778002	**SW-28**	EPA 3010	320257	EPA 6010	320366
40186778003	**SW-10**	EPA 3010	320257	EPA 6010	320366
40186778001	**SW-20**	SM 9222D	320026	SM 9222D	320083
40186778002	**SW-28**	SM 9222D	320026	SM 9222D	320083
40186778003	**SW-10**	SM 9222D	320026	SM 9222D	320083
40186778001	**SW-20**	EPA 180.1	320055		
40186778002	**SW-28**	EPA 180.1	320055		
40186778003	**SW-10**	EPA 180.1	320055		
40186778001	**SW-20**	EPA 300.0	320208		
40186778002	**SW-28**	EPA 300.0	320208		
40186778003	**SW-10**	EPA 300.0	320208		
40186778001	**SW-20**	EPA 350.1	320872		
40186778002	**SW-28**	EPA 350.1	320872		
40186778003	**SW-10**	EPA 350.1	320872		
40186778001	**SW-20**	EPA 351.2	320730	EPA 351.2	320791
40186778002	**SW-28**	EPA 351.2	320730	EPA 351.2	320791
40186778003	**SW-10**	EPA 351.2	320730	EPA 351.2	320791
40186778001	**SW-20**	EPA 353.2	320716		
40186778002	**SW-28**	EPA 353.2	320716		
40186778003	**SW-10**	EPA 353.2	320716		
40186778001	**SW-20**	EPA 410.4	320813	EPA 410.4	320863
40186778002	**SW-28**	EPA 410.4	320813	EPA 410.4	320863
40186778003	**SW-10**	EPA 410.4	320813	EPA 410.4	320863

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of 1

CHAIN OF CUSTODY

401867778

(Please Print Clearly)	
Company Name:	GHD
Branch/Location:	St. Paul
Project Contact:	Grant Anderson
Phone:	651-639-0913
Project Number:	11115796-40
Project Name:	Rhinelander LF
Project State:	WI
Sampled By (Print):	Ryan Aamot
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested: Fecal Coliform	N+N, COD, Ammonia, TKN	Chloride, Turbidity	Metals, Hardness
					Y/N	Pick Letter	N	N	N	N
001	W-190430-RA-100	4/30/19	1140	SW			✓	✓	✓	✓
002	W-190430-RA-101		1150				✓	✓	✓	✓
003	W-190430-RA-102		1230				✓	✓	✓	✓

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
		19

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	4/30/19 1700		
FedEx	5/1/19 1025		5-1-19 1025
	5/1/19		

PACE Project No.: 401867778
Receipt Temp = ROI °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

4018778

Joshua Kryger - Past hold fecal coli arriving today

From: Dan Milewsky
To: WI Sample Receiving
Date: 5/1/2019 8:54 AM
Subject: Past hold fecal coli arriving today
Cc: WI Wetchem

GHD (Rhinelander LF)
3 fecal coli's arriving today, collected yesterday, OK to analyze past hold

Dan Milewsky
Project Manager
Pace Analytical Services
1241 Bellevue Street
Green Bay, WI 54302
920.412-8566 (Direct/Cell) | 920.469.2436 (Green Bay Lab) |
www.pacelabs.com

Pace Analytical Services, LL
1241 Bellevue Street, Suite
Green Bay, WI 54430

Sample Preservation Receipt Form

Client Name: GHD Project # 40186778

All containers needing preservation have been checked and noted below: ☑Yes ☐No ☐N/A Initial when completed: JK Date/ Time:

Lab Lot# of pH paper: 100338 Lab Std #ID of preservation (if pH adjusted):

	Glass							Plastic							Vials						Jars			General			VOA Vials (>6mm) *						
Pace Lab #	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN		H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001								1					1	1										1				X			X		2.5 / 5 / 10
002								1					1	1										1				X			X		2.5 / 5 / 10
003								1					1	1										1				X			X		2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
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014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	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**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40186778

40186778

Client Name: GHD

Courier: ☐ CS Logistics ☑ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other:

Tracking #: 8126 1666 0128

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 - NA **Type of Ice:** Wet Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: 0 KVI

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.

Person examining contents:
Date: 5-1-19
Initials: JK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1. 5-1-19JK
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. No ~~pH~~, preservation, mail/arrive 5-1-19JK
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☐Yes ☑No	5. Fecals ok to run past hold, per PM email 5-1-19JK
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: W	☐Yes ☑No ☐N/A	12. No time, labels have water damage 5-1-19JK
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑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:

Project Manager Review: Rmp for DR **Date:** 05/01/19

Memorandum

June 11, 2019

To:	Ryan Aamot, GHD	Ref. No.:	11115796-20
From:	Grant Anderson/sb/2	Tel:	(651) 639-0913

Subject: **Analytical Results and Reduced Data Validation**
Groundwater and Surface Water Sampling Event
Rhinelander Landfill Site – Rhinelander, Wisconsin
April 2019

1. Introduction

The following document details a reduced validation of analytical results for groundwater and surface water samples collected in support of the monitoring event at the Rhinelander Landfill Site in Rhinelander, Wisconsin during April 2019. Samples were submitted to Pace Analytical Services, Inc. (Pace), located in Green Bay, Wisconsin. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Tables 2A and 2B. A summary of the analytical methodology is presented in Table 3.

Standard GHD Services, Inc. (GHD) report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spike samples (MS), and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

i) "National Functional Guidelines for Organic Superfund Methods Data Review," EPA-540-R-2017-002, January 2017

ii) "National Functional Guidelines for Inorganic Superfund Methods Data Review," EPA-540-R-2017-001, January 2017

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 3. The sample chain of custody documents and analytical reports were used to determine sample holding times. With the exception of fecal coliform bacteria analyses, all samples were analyzed within the required holding times. Table 4 lists the holding time exceedances. Associated sample data are qualified as noted in the table.

All samples were properly preserved and delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

Laboratory method blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

Hardness and lead were detected in the method blanks. However, in the case of hardness, the associated sample results were sufficiently high enough that qualification of data was not necessary. Table 4 lists the method blank detection for lead. Associated sample data are qualified as noted in the table.

4. Surrogate Spike Recoveries

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries were within the laboratory control limits.

5. Laboratory Control Sample (LCS) Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

LCS were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Organic Analyses

The LCS contained all compounds of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

The laboratory performed site-specific MS/MSD analyses internally.

Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the acceptance criteria, demonstrating acceptable analytical accuracy and precision.

Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within acceptance criteria, demonstrating acceptable analytical accuracy and precision.

7. Field QA/QC Samples

The field QA/QC samples consisted of one trip blank sample, one field blank sample and one field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank sample was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

Field Blank Sample Analysis

To assess ambient conditions at the site and cleanliness of sample containers, a field blank was submitted for analysis, as identified in Table 1. With the exception of hardness, all results were non-detect for the analytes of interest. Associated hardness results were sufficiently high enough that qualification of data was not necessary based on analytes detected in the field blank.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample set was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Groundwater and Surface Water Sampling Event
Rhinelander Landfill
Rhinelander, Wisconsin
April 2019

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters												Comments
					VOC	Select Metals (total)	Select Metals (dissolved)	Hardness	Fecal Coliforms	Turbidity	Chloride	Alkalinity	Ammonia	Total Kjeldahl Nitrogen	Chemical Oxygen Demand	Nitrate/Nitrite	
SW-20	SW-20	water	04/30/2019	11:40		x		x	x	x	x		x	x	x	x	
SW-28	SW-28	water	04/30/2019	11:50		x		x	x	x	x		x	x	x	x	
SW-10	SW-10	water	04/30/2019	12:30		x		x	x	x	x		x	x	x	x	
MW-16C	MW-16C	water	04/29/2019	14:20	x		x	x			x	x					
MW-16A	MW-16A	water	04/29/2019	14:40	x		x	x			x	x					
MW-16B	MW-16B	water	04/29/2019	15:03	x		x	x			x	x					
MW-16B DUP	MW-16B	water	04/29/2019	15:03	x		x	x			x	x					Duplicate
MW-20C	MW-20C	water	04/30/2019	08:08	x		x	x			x	x					
MW-20B	MW-20B	water	04/30/2019	08:20	x		x	x			x	x					
MW-20A	MW-20A	water	04/30/2019	08:48	x		x	x			x	x					
FIELD BLANK	MW-20A	water	04/30/2019	09:00	x		x	x			x	x					Field Blank
MW-2A	MW-2A	water	04/30/2019	09:41	x		x	x			x	x	x	x			
MW-2B	MW-2B	water	04/30/2019	09:59	x		x	x			x	x					
TRIP BLANK	Lab	water	04/30/2019	00:00	x												Trip Blank

Notes:

VOC - Volatile Organic Compounds

Table 2A

Validated Analytical Results Summary - Groundwater
Groundwater and Surface Water Sampling Event
Rhinelander Landfill
Rhinelander, Wisconsin
April 2019

Location ID:		MW-16A	MW-16B	MW-16B	MW-16C	MW-20A	MW-20B	MW-20C	MW-2A	MW-2B
Sample Name:		MW-16A	MW-16B	MW-16B DUP	MW-16C	MW-20A	MW-20B	MW-20C	MW-2A	MW-2B
Sample Date:		04/29/2019	04/29/2019	04/29/2019 Duplicate	04/29/2019	04/30/2019	04/30/2019	04/30/2019	04/30/2019	04/30/2019
Parameters	**Unit**									
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	µg/L	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
1,2,3-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	µg/L	2.8 U	2.8 U	2.8 U	2.8 U	16.7	2.8 U	2.8 U	2.8 U	2.8 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
1,2-Dichlorobenzene	µg/L	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	2.9 U	2.9 U	2.9 U	2.9 U	3.1	2.9 U	2.9 U	2.9 U	2.9 U
1,3-Dichlorobenzene	µg/L	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
1,3-Dichloropropane	µg/L	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
1,4-Dichlorobenzene	µg/L	3.1 U	3.1 U	3.1 U	3.1 U	1.6 J	3.1 U	3.1 U	3.1 U	3.1 U
2,2-Dichloropropane	µg/L	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U
2-Chlorotoluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Phenylbutane (sec-Butylbenzene)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Benzene	µg/L	0.76 J	1.0 J	1.0	1.2	1.2	0.70 J	0.94 J	13.8	0.86 J
Bromobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Bromoform	µg/L	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	2.4 U	2.4 U	2.4 U	2.4 U	4.3	0.90 J	0.72 J	2.4 U	2.4 U
Chlorobromomethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2A

Validated Analytical Results Summary - Groundwater
Groundwater and Surface Water Sampling Event
Rhinelander Landfill
Rhinelander, Wisconsin
April 2019

Location ID:		MW-16A	MW-16B	MW-16B	MW-16C	MW-20A	MW-20B	MW-20C	MW-2A	MW-2B
Sample Name:		MW-16A	MW-16B	MW-16B DUP	MW-16C	MW-20A	MW-20B	MW-20C	MW-2A	MW-2B
Sample Date:		04/29/2019	04/29/2019	04/29/2019 Duplicate	04/29/2019	04/30/2019	04/30/2019	04/30/2019	04/30/2019	04/30/2019
Parameters	**Unit**									
Chloromethane (Methyl chloride)	µg/L	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U	12.1 U
Cymene (p-Isopropyltoluene)	µg/L	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Dibromochloromethane	µg/L	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U
Dibromomethane	µg/L	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diisopropyl ether	µg/L	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	3.2 J	5.0 U	5.0 U	5.0 U	5.0 U
m&p-Xylenes	µg/L	2.0 U	2.0 U	2.0 U	0.89 J	39.4	2.0 U	2.0 U	1.5 J	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Butylbenzene	µg/L	2.4 U	2.4 U	2.4 U	2.4 U	1.0 J	2.4 U	2.4 U	2.4 U	2.4 U
N-Propylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	2.2 J	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	µg/L	5.0 U	5.0 U	5.0 U	1.8 J	10.7	6.7	5.1	5.0 U	5.0 U
o-Xylene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
tert-Butylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Tetrahydrofuran	µg/L	20.0 U	20.0 U	20.0 U	9.0 J	6.8 J	8.0 J	12.3 J	85.9	16.0 J
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	0.18 J	5.0 U	5.0 U	0.19 J	5.0 U
trans-1,2-Dichloroethene	µg/L	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
trans-1,3-Dichloropropene	µg/L	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U	14.6 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	0.24 J	0.22 J	0.26 J	1.0 U	0.25 J	0.80 J	1.0 U	0.42 J
Metals										
Hardness, calculation	mg/L	201	221	220	232	175	158	188	499	182
Boron (dissolved)	µg/L	--	--	--	--	505	--	--	677	--
Iron (dissolved)	µg/L	3690	34400	34100	27200	75300	16800	22200	58300	22200
Manganese (dissolved)	µg/L	4100	3690	3700	2180	848	1040	1460	760	1220

Table 2A

Validated Analytical Results Summary - Groundwater
Groundwater and Surface Water Sampling Event
Rhinelander Landfill
Rhinelander, Wisconsin
April 2019

Location ID:		MW-16A	MW-16B	MW-16B	MW-16C	MW-20A	MW-20B	MW-20C	MW-2A	MW-2B
Sample Name:		MW-16A	MW-16B	MW-16B DUP	MW-16C	MW-20A	MW-20B	MW-20C	MW-2A	MW-2B
Sample Date:		04/29/2019	04/29/2019	04/29/2019 Duplicate	04/29/2019	04/30/2019	04/30/2019	04/30/2019	04/30/2019	04/30/2019
Parameters	**Unit**									
General Chemistry										
Alkalinity, total (as CaCO3)	mg/L	211	224	232	232	255	142	176	734	214
Ammonia	mg/L	--	--	--	--	--	--	--	96.9	--
Chloride	mg/L	25.8	36.4	36.7	43.9	10.8	49.5	49.1	44.1	28.3
Total Kjeldahl Nitrogen (TKN)	mg/L	--	--	--	--	--	--	--	96.0	--

Note:

U - Not detected at the associated reporting limit

J - Estimated concentration

Table 2B

Validated Analytical Results Summary - Surface Water
Groundwater and Surface Water Sampling Event
Rhinelander Landfill
Rhinelander, Wisconsin
April 2019

Location ID:		**SW-10**	**SW-20**	**SW-28**
Sample Name:		**SW-10**	**SW-20**	**SW-28**
Sample Date:		**04/30/2019**	**04/30/2019**	**04/30/2019**
Parameters	**Unit**			
Metals				
Hardness, calculation	mg/L	41.7	45.4	49.4
Copper	µg/L	20.0 U	20.0 U	20.0 U
Iron	µg/L	2650	2280	2760
Lead	µg/L	19.7 U	19.7 U	19.7 U
Sodium	µg/L	17900	21100	20000
Zinc	µg/L	18.0 J	40.0 U	13.6 J
General Chemistry				
Fecal coliform bacteria	cfu/100mL	28.0 J	2.00 J	5.71 J
Ammonia	mg/L	0.50 U	0.50 U	0.50 U
Chemical oxygen demand (COD)	mg/L	30.4 J	25.2 J	29.7 J
Chloride	mg/L	42.4	44.2	46.5
Nitrite/Nitrate	mg/L	0.12 J	0.14 J	0.13 J
Total Kjeldahl Nitrogen (TKN)	mg/L	0.78	0.51 J	0.63 J
Turbidity	NTU	12.3	9.1	12.0

Note:

U - Not detected at the associated reporting limit
J - Estimated concentration

Table 3

Analytical Methods
Groundwater and Surface Water Sampling Event
Rhinelander Landfill
Rhinelander, Wisconsin
April 2019

Parameter	Method	Matrix	Holding Time: Collection to Extraction (days)	Holding Time: Collection or Extraction to Analysis (days)
Volatile Organic Compounds (VOC)	SW-846 8260	Water	-	14
Select Metals	SW-846 6010	Water	-	180
Select Metals, (dissolved)	SW-846 6010	Water	-	180
Hardness	SM 2340B	Water	-	180
Fecal Coliforms	SM 9222D	Water	-	6 hours
Chloride	EPA 300.0	Water	-	28
Ammonia	EPA 350.1	Water	-	28
Total Kjeldahl Nitrogen (TKN)	EPA 351.2	Water	-	28
Chemical Oxygen Demand (COD)	EPA 410.4	Water	-	28
Nitrate/Nitrite	EPA 353.2	Water	-	28
Alkalinity	EPA 310.2	Water	-	14
Turbidity	EPA 180.1	Water	-	48 hours

Notes:

Method References:
SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
SM - "Standard Methods For the Examination of Water and Wastewater"
EPA - "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions

Table 4

Qualified Sample Results Due to Holding Time Exceedance
Groundwater and Surface Water Sampling Event
Rhinelander Landfill
Rhinelander, Wisconsin
April 2019

Parameter	Sample ID	Holding Time (hours)	Holding Time Criteria (hours)	Analyte	Qualified Sample Results	Units
Fecal coliform bacteria	SW-20	26	6	Fecal coliform bacteria	2.00 J	cfu/100mL
	SW-28	26	6	Fecal coliform bacteria	5.71 J	cfu/100mL
	SW-10	25	6	Fecal coliform bacteria	28.0 J	cfu/100mL

Notes:

J - Estimated concentration

Table 5

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Groundwater and Surface Water Sampling Event
Rhinelander Landfill
Rhinelander, Wisconsin
April 2019

Parameter	Analyte	Analysis Batch	Blank Result *	Sample ID	Original Result	Qualified Result	Units
Metals	Lead	320257	8.0J	SW-28	6.1 J	19.7 U	ug/L
				SW-10	7.6 J	19.7 U	ug/L

Notes:

* - Blank result adjusted for sample factors where applicable
U - Not detected at the associated reporting limit
J - Estimated concentration

Appendix B
Groundwater Sampling Laboratory Reports and Data Validation

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

December 12, 2019

Grant Anderson
GHD Services; St. Paul
1801 Old Highway 8 Northwest
Suite 114
Saint Paul, MN 55112

RE: Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Dear Grant Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40196011001	MW-20C	Water	09/24/19 16:00	09/26/19 09:40
40196011002	MW-20B	Water	09/24/19 16:02	09/26/19 09:40
40196011003	MW-4A	Water	09/24/19 14:16	09/26/19 09:40
40196011004	MW-5A	Water	09/24/19 14:35	09/26/19 09:40
40196011005	MW-25B	Water	09/24/19 15:28	09/26/19 09:40
40196011006	MW-20A	Water	09/24/19 16:11	09/26/19 09:40
40196011007	MW-16A	Water	09/25/19 09:44	09/26/19 09:40
40196011008	MW-16A DUP	Water	09/25/19 09:44	09/26/19 09:40
40196011009	MW-16B	Water	09/25/19 09:44	09/26/19 09:40
40196011010	FIELD BLANK	Water	09/25/19 09:44	09/26/19 09:40
40196011011	MW-16C	Water	09/25/19 10:07	09/26/19 09:40
40196011012	MW-18A	Water	09/25/19 10:26	09/26/19 09:40
40196011013	MW-18B	Water	09/25/19 10:23	09/26/19 09:40
40196011014	MW-18C	Water	09/25/19 11:38	09/26/19 09:40
40196011015	MW-26B	Water	09/25/19 11:09	09/26/19 09:40
40196011016	MW-26C	Water	09/25/19 11:10	09/26/19 09:40
40196011017	MW-28A	Water	09/25/19 12:32	09/26/19 09:40
40196011018	MW-27B	Water	09/25/19 12:36	09/26/19 09:40
40196011019	MW-21A	Water	09/25/19 13:44	09/26/19 09:40
40196011020	MW-2A	Water	09/25/19 14:06	09/26/19 09:40
40196011021	MW-2B	Water	09/25/19 14:30	09/26/19 09:40
40196011022	TRIP BLANK	Water	09/25/19 00:00	09/26/19 09:40
40196011023	MW-19B	Water	09/24/19 00:00	09/26/19 09:40
40196011024	MW-19C	Water	09/24/19 00:00	09/26/19 09:40
40196011025	MW-28B	Water	09/25/19 00:00	09/26/19 09:40

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SAMPLE ANALYTE COUNT

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40196011001	**MW-20C**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011002	**MW-20B**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011003	**MW-4A**	EPA 6010	TXW	4
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011004	**MW-5A**	EPA 6010	TXW	4
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011005	**MW-25B**	EPA 6010	TXW	4
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011006	**MW-20A**	EPA 6010	TXW	4
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011007	**MW-16A**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011008	**MW-16A DUP**	EPA 6010	TXW	3
		EPA 8260	SMT	65

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SAMPLE ANALYTE COUNT

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Lab ID	Sample ID	Method	Analysts	Analytes Reported
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011009	**MW-16B**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011010	**FIELD BLANK**	EPA 6010	TXW	3
		EPA 8260	SMT	65
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011011	**MW-16C**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011012	**MW-18A**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011013	**MW-18B**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011014	**MW-18C**	EPA 6010	TXW	4
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011015	**MW-26B**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1

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SAMPLE ANALYTE COUNT

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40196011016	**MW-26C**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011017	**MW-28A**	EPA 6010	TXW	4
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011018	**MW-27B**	EPA 6010	TXW	3
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011019	**MW-21A**	EPA 6010	TXW	4
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
40196011020	**MW-2A**	EPA 6010	TXW	4
		EPA 8260	SMT	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
40196011021	**MW-2B**	EPA 6010	TXW	3
		EPA 8260	LAP	65
			AXL	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40196011022	**TRIP BLANK**	EPA 8260	LAP	65
40196011023	**MW-19B**		AXL	6
40196011024	**MW-19C**		AXL	6

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SAMPLE ANALYTE COUNT

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40196011025	**MW-28B**		AXL	5

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-20C **Lab ID: 40196011001** Collected: 09/24/19 16:00 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**23400**	ug/L	100	29.6	1		10/02/19 01:34	7439-89-6	
Manganese, Dissolved	**1390**	ug/L	5.0	1.1	1		10/02/19 01:34	7439-96-5	
Total Hardness by 2340B, Dissolved	**205**	mg/L	2.0	0.15	1		10/02/19 01:34		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.90J**	ug/L	1.0	0.25	1		09/30/19 11:35	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 11:35	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 11:35	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 11:35	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 11:35	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 11:35	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 11:35	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 11:35	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 11:35	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 11:35	56-23-5	
Chlorobenzene	**0.83J**	ug/L	2.4	0.71	1		09/30/19 11:35	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 11:35	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 11:35	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 11:35	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 11:35	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 11:35	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 11:35	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 11:35	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 11:35	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 11:35	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 11:35	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 11:35	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 11:35	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 11:35	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 11:35	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 11:35	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 11:35	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 11:35	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 11:35	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 11:35	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 11:35	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 11:35	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 11:35	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 11:35	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 11:35	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 11:35	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 11:35	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 11:35	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 11:35	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 11:35	99-87-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-20C **Lab ID: 40196011001** Collected: 09/24/19 16:00 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 11:35	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 11:35	1634-04-4	
Naphthalene	**5.5**	ug/L	5.0	1.2	1		09/30/19 11:35	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 11:35	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 11:35	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 11:35	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 11:35	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 11:35	127-18-4	
Tetrahydrofuran	**11.5J**	ug/L	20.0	2.3	1		09/30/19 11:35	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 11:35	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 11:35	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 11:35	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 11:35	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 11:35	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 11:35	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 11:35	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 11:35	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 11:35	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 11:35	108-67-8	
Vinyl chloride	**0.64J**	ug/L	1.0	0.17	1		09/30/19 11:35	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 11:35	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 11:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		09/30/19 11:35	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		09/30/19 11:35	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		09/30/19 11:35	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.65**	Std. Units			1		09/24/19 16:00		
Field Specific Conductance	**620**	umhos/cm			1		09/24/19 16:00		
Oxygen, Dissolved	**2**	mg/L			1		09/24/19 16:00	7782-44-7	
REDOX	**-124**	mV			1		09/24/19 16:00		
Turbidity	**1.8**	NTU			1		09/24/19 16:00		
Temperature, Water (C)	**13.3**	deg C			1		09/24/19 16:00		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**44.9**	mg/L	10.0	2.5	5		10/04/19 16:45	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**186**	mg/L	23.5	7.0	1		10/07/19 12:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-20B **Lab ID: 40196011002** Collected: 09/24/19 16:02 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**17900**	ug/L	100	29.6	1		10/02/19 01:36	7439-89-6	
Manganese, Dissolved	**1030**	ug/L	5.0	1.1	1		10/02/19 01:36	7439-96-5	
Total Hardness by 2340B, Dissolved	**169**	mg/L	2.0	0.15	1		10/02/19 01:36		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.67J**	ug/L	1.0	0.25	1		09/30/19 11:54	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 11:54	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 11:54	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 11:54	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 11:54	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 11:54	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 11:54	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 11:54	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 11:54	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 11:54	56-23-5	
Chlorobenzene	**0.97J**	ug/L	2.4	0.71	1		09/30/19 11:54	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 11:54	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 11:54	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 11:54	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 11:54	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 11:54	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 11:54	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 11:54	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 11:54	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 11:54	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 11:54	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 11:54	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 11:54	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 11:54	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 11:54	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 11:54	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 11:54	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 11:54	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 11:54	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 11:54	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 11:54	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 11:54	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 11:54	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 11:54	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 11:54	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 11:54	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 11:54	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 11:54	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 11:54	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 11:54	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-20B **Lab ID: 40196011002** Collected: 09/24/19 16:02 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 11:54	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 11:54	1634-04-4	
Naphthalene	**6.4**	ug/L	5.0	1.2	1		09/30/19 11:54	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 11:54	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 11:54	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 11:54	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 11:54	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 11:54	127-18-4	
Tetrahydrofuran	**5.4J**	ug/L	20.0	2.3	1		09/30/19 11:54	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 11:54	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 11:54	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 11:54	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 11:54	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 11:54	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 11:54	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 11:54	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 11:54	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 11:54	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 11:54	108-67-8	
Vinyl chloride	**0.19J**	ug/L	1.0	0.17	1		09/30/19 11:54	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 11:54	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 11:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		09/30/19 11:54	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		09/30/19 11:54	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		09/30/19 11:54	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.09**	Std. Units			1		09/24/19 16:02		
Field Specific Conductance	**536**	umhos/cm			1		09/24/19 16:02		
Oxygen, Dissolved	**0**	mg/L			1		09/24/19 16:02	7782-44-7	
REDOX	**-130**	mV			1		09/24/19 16:02		
Turbidity	**11.1**	NTU			1		09/24/19 16:02		
Temperature, Water (C)	**10.79**	deg C			1		09/24/19 16:02		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**43.9**	mg/L	10.0	2.5	5		10/04/19 16:58	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**140**	mg/L	23.5	7.0	1		10/07/19 12:03		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-4A **Lab ID: 40196011003** Collected: 09/24/19 14:16 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**16.3J**	ug/L	40.0	9.7	1		10/02/19 01:39	7440-42-8	
Iron, Dissolved	**<29.6**	ug/L	100	29.6	1		10/02/19 01:39	7439-89-6	
Manganese, Dissolved	**<1.1**	ug/L	5.0	1.1	1		10/02/19 01:39	7439-96-5	
Total Hardness by 2340B, Dissolved	**144**	mg/L	2.0	0.15	1		10/02/19 01:39		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/30/19 12:14	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 12:14	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 12:14	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 12:14	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 12:14	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 12:14	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 12:14	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 12:14	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 12:14	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 12:14	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 12:14	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 12:14	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 12:14	67-66-3	
Chloromethane	**2.6J**	ug/L	7.3	2.2	1		09/30/19 12:14	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 12:14	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 12:14	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 12:14	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 12:14	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 12:14	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 12:14	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 12:14	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 12:14	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 12:14	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 12:14	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 12:14	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 12:14	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 12:14	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 12:14	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 12:14	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 12:14	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 12:14	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 12:14	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 12:14	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 12:14	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 12:14	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 12:14	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 12:14	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 12:14	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 12:14	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-4A **Lab ID: 40196011003** Collected: 09/24/19 14:16 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 12:14	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 12:14	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 12:14	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 12:14	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 12:14	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 12:14	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 12:14	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 12:14	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 12:14	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 12:14	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 12:14	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 12:14	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 12:14	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 12:14	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 12:14	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 12:14	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 12:14	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 12:14	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 12:14	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 12:14	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 12:14	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 12:14	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 12:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		09/30/19 12:14	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		09/30/19 12:14	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/30/19 12:14	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.16**	Std. Units			1		09/24/19 14:16		
Field Specific Conductance	**342**	umhos/cm			1		09/24/19 14:16		
Oxygen, Dissolved	**0**	mg/L			1		09/24/19 14:16	7782-44-7	
REDOX	**183**	mV			1		09/24/19 14:16		
Turbidity	**0**	NTU			1		09/24/19 14:16		
Temperature, Water (C)	**11.37**	deg C			1		09/24/19 14:16		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**22.4**	mg/L	2.0	0.50	1		10/04/19 17:11	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**111**	mg/L	23.5	7.0	1		10/07/19 12:03		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-5A **Lab ID: 40196011004** Collected: 09/24/19 14:35 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**18.7J**	ug/L	40.0	9.7	1		10/02/19 01:41	7440-42-8	
Iron, Dissolved	**56.4J**	ug/L	100	29.6	1		10/02/19 01:41	7439-89-6	
Manganese, Dissolved	**2490**	ug/L	5.0	1.1	1		10/02/19 01:41	7439-96-5	
Total Hardness by 2340B, Dissolved	**958**	mg/L	2.0	0.15	1		10/02/19 01:41		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/30/19 12:34	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 12:34	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 12:34	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 12:34	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 12:34	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 12:34	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 12:34	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 12:34	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 12:34	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 12:34	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 12:34	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 12:34	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 12:34	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 12:34	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 12:34	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 12:34	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 12:34	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 12:34	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 12:34	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 12:34	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 12:34	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 12:34	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 12:34	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 12:34	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 12:34	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 12:34	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 12:34	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 12:34	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 12:34	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 12:34	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 12:34	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 12:34	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 12:34	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 12:34	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 12:34	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 12:34	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 12:34	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 12:34	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 12:34	98-82-8	

REPORT OF LABORATORY ANALYSIS

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

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-5A **Lab ID: 40196011004** Collected: 09/24/19 14:35 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 12:34	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 12:34	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 12:34	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 12:34	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 12:34	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 12:34	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 12:34	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 12:34	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 12:34	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 12:34	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 12:34	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 12:34	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 12:34	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 12:34	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 12:34	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 12:34	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 12:34	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 12:34	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 12:34	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 12:34	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 12:34	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 12:34	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 12:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		09/30/19 12:34	460-00-4	
Dibromofluoromethane (S)	97	%	70-130		1		09/30/19 12:34	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		09/30/19 12:34	2037-26-5	
Field Data	Analytical Method:								
Field pH	**5.35**	Std. Units			1		09/24/19 14:35		
Field Specific Conductance	**4360**	umhos/cm			1		09/24/19 14:35		
Oxygen, Dissolved	**0**	mg/L			1		09/24/19 14:35	7782-44-7	
REDOX	**278**	mV			1		09/24/19 14:35		
Turbidity	**0**	NTU			1		09/24/19 14:35		
Temperature, Water (C)	**12.86**	deg C			1		09/24/19 14:35		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**1200**	mg/L	200	50.0	100		10/07/19 12:17	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**21.1J**	mg/L	23.5	7.0	1		10/07/19 12:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-25B **Lab ID: 40196011005** Collected: 09/24/19 15:28 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**11.4J**	ug/L	40.0	9.7	1		10/02/19 01:44	7440-42-8	
Iron, Dissolved	**73.6J**	ug/L	100	29.6	1		10/02/19 01:44	7439-89-6	
Manganese, Dissolved	**41.4**	ug/L	5.0	1.1	1		10/02/19 01:44	7439-96-5	
Total Hardness by 2340B, Dissolved	**187**	mg/L	2.0	0.15	1		10/02/19 01:44		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/30/19 12:53	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 12:53	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 12:53	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 12:53	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 12:53	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 12:53	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 12:53	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 12:53	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 12:53	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 12:53	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 12:53	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 12:53	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 12:53	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 12:53	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 12:53	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 12:53	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 12:53	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 12:53	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 12:53	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 12:53	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 12:53	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 12:53	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 12:53	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 12:53	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 12:53	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 12:53	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 12:53	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 12:53	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 12:53	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 12:53	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 12:53	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 12:53	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 12:53	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 12:53	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 12:53	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 12:53	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 12:53	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 12:53	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 12:53	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-25B **Lab ID: 40196011005** Collected: 09/24/19 15:28 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 12:53	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 12:53	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 12:53	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 12:53	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 12:53	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 12:53	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 12:53	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 12:53	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 12:53	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 12:53	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 12:53	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 12:53	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 12:53	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 12:53	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 12:53	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 12:53	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 12:53	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 12:53	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 12:53	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 12:53	108-67-8	
Vinyl chloride	**1.4**	ug/L	1.0	0.17	1		09/30/19 12:53	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 12:53	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 12:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		09/30/19 12:53	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		09/30/19 12:53	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/30/19 12:53	2037-26-5	
Field Data	Analytical Method:								
Field pH	**8**	Std. Units			1		09/24/19 15:28		
Field Specific Conductance	**413**	umhos/cm			1		09/24/19 15:28		
Oxygen, Dissolved	**0**	mg/L			1		09/24/19 15:28	7782-44-7	
REDOX	**160**	mV			1		09/24/19 15:28		
Turbidity	**216**	NTU			1		09/24/19 15:28		
Temperature, Water (C)	**9.83**	deg C			1		09/24/19 15:28		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**16.8**	mg/L	2.0	0.50	1		10/04/19 17:37	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**148**	mg/L	23.5	7.0	1		10/07/19 12:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-20A **Lab ID: 40196011006** Collected: 09/24/19 16:11 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**813**	ug/L	40.0	9.7	1		10/02/19 01:46	7440-42-8	
Iron, Dissolved	**115000**	ug/L	100	29.6	1		10/02/19 01:46	7439-89-6	
Manganese, Dissolved	**953**	ug/L	5.0	1.1	1		10/02/19 01:46	7439-96-5	
Total Hardness by 2340B, Dissolved	**264**	mg/L	2.0	0.15	1		10/02/19 01:46		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**2.2**	ug/L	1.0	0.25	1		09/30/19 13:13	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 13:13	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 13:13	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 13:13	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 13:13	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 13:13	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 13:13	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 13:13	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 13:13	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 13:13	56-23-5	
Chlorobenzene	**7.2**	ug/L	2.4	0.71	1		09/30/19 13:13	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 13:13	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 13:13	67-66-3	
Chloromethane	**3.4J**	ug/L	7.3	2.2	1		09/30/19 13:13	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 13:13	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 13:13	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 13:13	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 13:13	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 13:13	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 13:13	74-95-3	
1,2-Dichlorobenzene	**0.85J**	ug/L	2.4	0.71	1		09/30/19 13:13	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 13:13	541-73-1	
1,4-Dichlorobenzene	**2.0J**	ug/L	3.1	0.94	1		09/30/19 13:13	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 13:13	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 13:13	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 13:13	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 13:13	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 13:13	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 13:13	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 13:13	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 13:13	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 13:13	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 13:13	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 13:13	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 13:13	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 13:13	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 13:13	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 13:13	87-68-3	
Isopropylbenzene (Cumene)	**4.3J**	ug/L	5.0	0.39	1		09/30/19 13:13	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-20A **Lab ID: 40196011006** Collected: 09/24/19 16:11 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 13:13	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 13:13	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 13:13	1634-04-4	
Naphthalene	**18.3**	ug/L	5.0	1.2	1		09/30/19 13:13	91-20-3	
n-Propylbenzene	**2.9J**	ug/L	5.0	0.81	1		09/30/19 13:13	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 13:13	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 13:13	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 13:13	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 13:13	127-18-4	
Tetrahydrofuran	**12.4J**	ug/L	20.0	2.3	1		09/30/19 13:13	109-99-9	
Toluene	**0.35J**	ug/L	5.0	0.17	1		09/30/19 13:13	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 13:13	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 13:13	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 13:13	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 13:13	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 13:13	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 13:13	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 13:13	96-18-4	
1,2,4-Trimethylbenzene	**23.7**	ug/L	2.8	0.84	1		09/30/19 13:13	95-63-6	
1,3,5-Trimethylbenzene	**4.4**	ug/L	2.9	0.87	1		09/30/19 13:13	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 13:13	75-01-4	
m&p-Xylene	**53.0**	ug/L	2.0	0.47	1		09/30/19 13:13	179601-23-1	
o-Xylene	**1.6**	ug/L	1.0	0.26	1		09/30/19 13:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		09/30/19 13:13	460-00-4	
Dibromofluoromethane (S)	100	%	70-130		1		09/30/19 13:13	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/30/19 13:13	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.11**	Std. Units			1		09/24/19 16:11		
Field Specific Conductance	**1130**	umhos/cm			1		09/24/19 16:11		
Oxygen, Dissolved	**1.85**	mg/L			1		09/24/19 16:11	7782-44-7	
REDOX	**-94**	mV			1		09/24/19 16:11		
Turbidity	**36.3**	NTU			1		09/24/19 16:11		
Temperature, Water (C)	**17.46**	deg C			1		09/24/19 16:11		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**11.8**	mg/L	10.0	2.5	5		10/04/19 17:51	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**446**	mg/L	47.0	14.1	2		10/07/19 12:05		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-16A **Lab ID: 40196011007** Collected: 09/25/19 09:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**5310**	ug/L	100	29.6	1		10/02/19 01:48	7439-89-6	
Manganese, Dissolved	**4430**	ug/L	5.0	1.1	1		10/02/19 01:48	7439-96-5	
Total Hardness by 2340B, Dissolved	**249**	mg/L	2.0	0.15	1		10/02/19 01:48		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.1**	ug/L	1.0	0.25	1		09/30/19 13:32	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 13:32	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 13:32	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 13:32	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 13:32	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 13:32	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 13:32	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 13:32	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 13:32	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 13:32	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 13:32	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 13:32	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 13:32	67-66-3	
Chloromethane	**3.7J**	ug/L	7.3	2.2	1		09/30/19 13:32	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 13:32	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 13:32	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 13:32	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 13:32	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 13:32	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 13:32	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 13:32	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 13:32	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 13:32	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 13:32	75-71-8	
1,1-Dichloroethane	**0.41J**	ug/L	1.0	0.27	1		09/30/19 13:32	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 13:32	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 13:32	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 13:32	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 13:32	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 13:32	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 13:32	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 13:32	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 13:32	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 13:32	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 13:32	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 13:32	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 13:32	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 13:32	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 13:32	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 13:32	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-16A **Lab ID: 40196011007** Collected: 09/25/19 09:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 13:32	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 13:32	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 13:32	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 13:32	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 13:32	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 13:32	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 13:32	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 13:32	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 13:32	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 13:32	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 13:32	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 13:32	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 13:32	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 13:32	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 13:32	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 13:32	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 13:32	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 13:32	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 13:32	108-67-8	
Vinyl chloride	**1.1**	ug/L	1.0	0.17	1		09/30/19 13:32	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 13:32	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 13:32	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		09/30/19 13:32	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		09/30/19 13:32	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		09/30/19 13:32	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.99**	Std. Units			1		09/25/19 09:44		
Field Specific Conductance	**609**	umhos/cm			1		09/25/19 09:44		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 09:44	7782-44-7	
REDOX	**-128**	mV			1		09/25/19 09:44		
Turbidity	**29**	NTU			1		09/25/19 09:44		
Temperature, Water (C)	**9.96**	deg C			1		09/25/19 09:44		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**28.7**	mg/L	2.0	0.50	1		10/04/19 18:04	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**225**	mg/L	47.0	14.1	2		10/07/19 13:23		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-16A DUP **Lab ID: 40196011008** Collected: 09/25/19 09:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**5540**	ug/L	100	29.6	1		10/02/19 01:51	7439-89-6	
Manganese, Dissolved	**4430**	ug/L	5.0	1.1	1		10/02/19 01:51	7439-96-5	
Total Hardness by 2340B, Dissolved	**245**	mg/L	2.0	0.15	1		10/02/19 01:51		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.1**	ug/L	1.0	0.25	1		09/30/19 13:52	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 13:52	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 13:52	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 13:52	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 13:52	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 13:52	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 13:52	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 13:52	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 13:52	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 13:52	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 13:52	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 13:52	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 13:52	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 13:52	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 13:52	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 13:52	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 13:52	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 13:52	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 13:52	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 13:52	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 13:52	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 13:52	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 13:52	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 13:52	75-71-8	
1,1-Dichloroethane	**0.43J**	ug/L	1.0	0.27	1		09/30/19 13:52	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 13:52	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 13:52	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 13:52	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 13:52	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 13:52	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 13:52	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 13:52	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 13:52	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 13:52	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 13:52	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 13:52	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 13:52	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 13:52	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 13:52	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 13:52	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-16A DUP **Lab ID: 40196011008** Collected: 09/25/19 09:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 13:52	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 13:52	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 13:52	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 13:52	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 13:52	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 13:52	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 13:52	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 13:52	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 13:52	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 13:52	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 13:52	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 13:52	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 13:52	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 13:52	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 13:52	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 13:52	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 13:52	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 13:52	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 13:52	108-67-8	
Vinyl chloride	**1.1**	ug/L	1.0	0.17	1		09/30/19 13:52	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 13:52	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 13:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		09/30/19 13:52	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		09/30/19 13:52	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/30/19 13:52	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.99**	Std. Units			1		09/25/19 09:44		
Field Specific Conductance	**609**	umhos/cm			1		09/25/19 09:44		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 09:44	7782-44-7	
REDOX	**-128**	mV			1		09/25/19 09:44		
Turbidity	**29**	NTU			1		09/25/19 09:44		
Temperature, Water (C)	**9.96**	deg C			1		09/25/19 09:44		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**28.7**	mg/L	2.0	0.50	1		10/04/19 18:17	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**230**	mg/L	23.5	7.0	1		10/07/19 13:27		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-16B **Lab ID: 40196011009** Collected: 09/25/19 09:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**35600**	ug/L	100	29.6	1		10/02/19 01:53	7439-89-6	
Manganese, Dissolved	**3640**	ug/L	5.0	1.1	1		10/02/19 01:53	7439-96-5	
Total Hardness by 2340B, Dissolved	**241**	mg/L	2.0	0.15	1		10/02/19 01:53		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.2**	ug/L	1.0	0.25	1		09/30/19 14:11	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 14:11	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 14:11	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 14:11	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 14:11	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 14:11	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 14:11	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 14:11	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 14:11	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 14:11	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 14:11	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 14:11	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 14:11	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 14:11	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 14:11	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 14:11	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 14:11	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 14:11	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 14:11	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 14:11	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 14:11	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 14:11	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 14:11	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 14:11	75-71-8	
1,1-Dichloroethane	**0.41J**	ug/L	1.0	0.27	1		09/30/19 14:11	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 14:11	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 14:11	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 14:11	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 14:11	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 14:11	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 14:11	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 14:11	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 14:11	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 14:11	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 14:11	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 14:11	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 14:11	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 14:11	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 14:11	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 14:11	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-16B **Lab ID: 40196011009** Collected: 09/25/19 09:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 14:11	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 14:11	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 14:11	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 14:11	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 14:11	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 14:11	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 14:11	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 14:11	127-18-4	
Tetrahydrofuran	**2.8J**	ug/L	20.0	2.3	1		09/30/19 14:11	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 14:11	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 14:11	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 14:11	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 14:11	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 14:11	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 14:11	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 14:11	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 14:11	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 14:11	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 14:11	108-67-8	
Vinyl chloride	**0.27J**	ug/L	1.0	0.17	1		09/30/19 14:11	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 14:11	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 14:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		09/30/19 14:11	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		09/30/19 14:11	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/30/19 14:11	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.98**	Std. Units			1		09/25/19 09:44		
Field Specific Conductance	**667**	umhos/cm			1		09/25/19 09:44		
Oxygen, Dissolved	**3.95**	mg/L			1		09/25/19 09:44	7782-44-7	
REDOX	**-164**	mV			1		09/25/19 09:44		
Turbidity	**4.7**	NTU			1		09/25/19 09:44		
Temperature, Water (C)	**11.69**	deg C			1		09/25/19 09:44		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**34.2**	mg/L	10.0	2.5	5		10/04/19 19:10	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**228**	mg/L	23.5	7.0	1		10/07/19 13:28		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: FIELD BLANK **Lab ID: 40196011010** Collected: 09/25/19 09:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**<29.6**	ug/L	100	29.6	1		10/02/19 02:01	7439-89-6	
Manganese, Dissolved	**<1.1**	ug/L	5.0	1.1	1		10/02/19 02:01	7439-96-5	
Total Hardness by 2340B, Dissolved	**3.4**	mg/L	2.0	0.15	1		10/02/19 02:01		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/30/19 14:31	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 14:31	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 14:31	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 14:31	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 14:31	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 14:31	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 14:31	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 14:31	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 14:31	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 14:31	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 14:31	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 14:31	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 14:31	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 14:31	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 14:31	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 14:31	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 14:31	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 14:31	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 14:31	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 14:31	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 14:31	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 14:31	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 14:31	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 14:31	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 14:31	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 14:31	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 14:31	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 14:31	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 14:31	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 14:31	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 14:31	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 14:31	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 14:31	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 14:31	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 14:31	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 14:31	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 14:31	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 14:31	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 14:31	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 14:31	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: FIELD BLANK **Lab ID: 40196011010** Collected: 09/25/19 09:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 14:31	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 14:31	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 14:31	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 14:31	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 14:31	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 14:31	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 14:31	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 14:31	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 14:31	109-99-9	
Toluene	**0.25J**	ug/L	5.0	0.17	1		09/30/19 14:31	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 14:31	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 14:31	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 14:31	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 14:31	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 14:31	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 14:31	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 14:31	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 14:31	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 14:31	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 14:31	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 14:31	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 14:31	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		09/30/19 14:31	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		09/30/19 14:31	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/30/19 14:31	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**<0.50**	mg/L	2.0	0.50	1		10/04/19 19:23	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**<7.0**	mg/L	23.5	7.0	1		10/07/19 13:29		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-16C **Lab ID: 40196011011** Collected: 09/25/19 10:07 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**28400**	ug/L	100	29.6	1		10/02/19 01:22	7439-89-6	
Manganese, Dissolved	**2160**	ug/L	5.0	1.1	1		10/02/19 01:22	7439-96-5	
Total Hardness by 2340B, Dissolved	**252**	mg/L	2.0	0.15	1		10/02/19 01:22		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.1**	ug/L	1.0	0.25	1		09/30/19 11:15	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 11:15	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 11:15	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 11:15	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 11:15	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 11:15	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 11:15	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 11:15	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 11:15	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 11:15	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 11:15	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 11:15	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 11:15	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 11:15	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 11:15	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 11:15	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 11:15	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 11:15	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 11:15	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 11:15	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 11:15	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 11:15	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 11:15	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 11:15	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 11:15	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 11:15	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 11:15	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 11:15	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 11:15	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 11:15	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 11:15	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 11:15	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 11:15	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 11:15	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 11:15	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 11:15	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 11:15	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 11:15	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 11:15	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 11:15	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-16C **Lab ID: 40196011011** Collected: 09/25/19 10:07 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 11:15	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 11:15	1634-04-4	
Naphthalene	**3.6J**	ug/L	5.0	1.2	1		09/30/19 11:15	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 11:15	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 11:15	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 11:15	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 11:15	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 11:15	127-18-4	
Tetrahydrofuran	**8.2J**	ug/L	20.0	2.3	1		09/30/19 11:15	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 11:15	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 11:15	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 11:15	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 11:15	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 11:15	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 11:15	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 11:15	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 11:15	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 11:15	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 11:15	108-67-8	
Vinyl chloride	**0.29J**	ug/L	1.0	0.17	1		09/30/19 11:15	75-01-4	
m&p-Xylene	**0.75J**	ug/L	2.0	0.47	1		09/30/19 11:15	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 11:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		09/30/19 11:15	460-00-4	
Dibromofluoromethane (S)	97	%	70-130		1		09/30/19 11:15	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		09/30/19 11:15	2037-26-5	
Field Data	Analytical Method:								
Field pH	**8.25**	Std. Units			1		09/25/19 10:07		
Field Specific Conductance	**732**	umhos/cm			1		09/25/19 10:07		
Oxygen, Dissolved	**0.39**	mg/L			1		09/25/19 10:07	7782-44-7	
REDOX	**-116**	mV			1		09/25/19 10:07		
Turbidity	**12**	NTU			1		09/25/19 10:07		
Temperature, Water (C)	**10.26**	deg C			1		09/25/19 10:07		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**40.2**	mg/L	10.0	2.5	5		10/04/19 19:36	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**239**	mg/L	47.0	14.1	2		10/07/19 13:29		M0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-18A **Lab ID: 40196011012** Collected: 09/25/19 10:26 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**2880**	ug/L	100	29.6	1		10/02/19 02:03	7439-89-6	
Manganese, Dissolved	**1180**	ug/L	5.0	1.1	1		10/02/19 02:03	7439-96-5	
Total Hardness by 2340B, Dissolved	**271**	mg/L	2.0	0.15	1		10/02/19 02:03		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/30/19 14:51	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 14:51	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 14:51	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 14:51	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 14:51	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 14:51	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 14:51	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 14:51	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 14:51	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 14:51	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 14:51	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 14:51	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 14:51	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 14:51	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 14:51	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 14:51	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 14:51	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 14:51	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 14:51	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 14:51	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 14:51	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 14:51	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 14:51	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 14:51	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 14:51	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 14:51	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 14:51	75-35-4	
cis-1,2-Dichloroethene	**4.1**	ug/L	1.0	0.27	1		09/30/19 14:51	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 14:51	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 14:51	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 14:51	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 14:51	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 14:51	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 14:51	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 14:51	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 14:51	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 14:51	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 14:51	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 14:51	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 14:51	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-18A **Lab ID: 40196011012** Collected: 09/25/19 10:26 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 14:51	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 14:51	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 14:51	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 14:51	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 14:51	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 14:51	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 14:51	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 14:51	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 14:51	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 14:51	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 14:51	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 14:51	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 14:51	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 14:51	79-00-5	
Trichloroethene	**3.7**	ug/L	1.0	0.26	1		09/30/19 14:51	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 14:51	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 14:51	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 14:51	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 14:51	108-67-8	
Vinyl chloride	**0.31J**	ug/L	1.0	0.17	1		09/30/19 14:51	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 14:51	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 14:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		09/30/19 14:51	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		09/30/19 14:51	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		09/30/19 14:51	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.2**	Std. Units			1		09/25/19 10:26		
Field Specific Conductance	**691**	umhos/cm			1		09/25/19 10:26		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 10:26	7782-44-7	
REDOX	**-131**	mV			1		09/25/19 10:26		
Turbidity	**4.6**	NTU			1		09/25/19 10:26		
Temperature, Water (C)	**12.51**	deg C			1		09/25/19 10:26		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**71.6**	mg/L	10.0	2.5	5		10/07/19 12:30	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**177**	mg/L	23.5	7.0	1		10/07/19 13:31		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-18B **Lab ID: 40196011013** Collected: 09/25/19 10:23 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**30.7J**	ug/L	100	29.6	1		10/02/19 02:06	7439-89-6	
Manganese, Dissolved	**2330**	ug/L	5.0	1.1	1		10/02/19 02:06	7439-96-5	
Total Hardness by 2340B, Dissolved	**395**	mg/L	2.0	0.15	1		10/02/19 02:06		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/30/19 15:10	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 15:10	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 15:10	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 15:10	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 15:10	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 15:10	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 15:10	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 15:10	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 15:10	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 15:10	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 15:10	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 15:10	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 15:10	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 15:10	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 15:10	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 15:10	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 15:10	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 15:10	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 15:10	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 15:10	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 15:10	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 15:10	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 15:10	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 15:10	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 15:10	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 15:10	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 15:10	75-35-4	
cis-1,2-Dichloroethene	**0.83J**	ug/L	1.0	0.27	1		09/30/19 15:10	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 15:10	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 15:10	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 15:10	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 15:10	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 15:10	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 15:10	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 15:10	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 15:10	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 15:10	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 15:10	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 15:10	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 15:10	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-18B **Lab ID: 40196011013** Collected: 09/25/19 10:23 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 15:10	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 15:10	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 15:10	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 15:10	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 15:10	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 15:10	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 15:10	79-34-5	
Tetrachloroethene	**0.72J**	ug/L	1.1	0.33	1		09/30/19 15:10	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 15:10	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 15:10	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 15:10	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 15:10	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 15:10	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 15:10	79-00-5	
Trichloroethene	**7.5**	ug/L	1.0	0.26	1		09/30/19 15:10	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 15:10	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 15:10	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 15:10	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 15:10	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 15:10	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 15:10	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 15:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		09/30/19 15:10	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		09/30/19 15:10	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/30/19 15:10	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.68**	Std. Units			1		09/25/19 10:23		
Field Specific Conductance	**937**	umhos/cm			1		09/25/19 10:23		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 10:23	7782-44-7	
REDOX	**-16**	mV			1		09/25/19 10:23		
Turbidity	**29.9**	NTU			1		09/25/19 10:23		
Temperature, Water (C)	**10.69**	deg C			1		09/25/19 10:23		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**147**	mg/L	20.0	5.0	10		10/04/19 15:42	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**216**	mg/L	23.5	7.0	1		10/07/19 13:31		

REPORT OF LABORATORY ANALYSIS

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

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-18C **Lab ID: 40196011014** Collected: 09/25/19 11:38 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**60.8**	ug/L	40.0	9.7	1		10/02/19 02:08	7440-42-8	
Iron, Dissolved	**<29.6**	ug/L	100	29.6	1		10/02/19 02:08	7439-89-6	
Manganese, Dissolved	**1460**	ug/L	5.0	1.1	1		10/02/19 02:08	7439-96-5	
Total Hardness by 2340B, Dissolved	**356**	mg/L	2.0	0.15	1		10/02/19 02:08		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/30/19 15:30	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 15:30	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 15:30	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 15:30	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 15:30	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 15:30	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 15:30	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 15:30	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 15:30	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 15:30	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 15:30	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 15:30	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 15:30	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 15:30	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 15:30	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 15:30	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 15:30	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 15:30	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 15:30	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 15:30	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 15:30	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 15:30	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 15:30	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 15:30	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 15:30	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 15:30	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 15:30	75-35-4	
cis-1,2-Dichloroethene	**1.0**	ug/L	1.0	0.27	1		09/30/19 15:30	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 15:30	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 15:30	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 15:30	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 15:30	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 15:30	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 15:30	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 15:30	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 15:30	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 15:30	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 15:30	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 15:30	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-18C **Lab ID: 40196011014** Collected: 09/25/19 11:38 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 15:30	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 15:30	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 15:30	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 15:30	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 15:30	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 15:30	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 15:30	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 15:30	79-34-5	
Tetrachloroethene	**0.84J**	ug/L	1.1	0.33	1		09/30/19 15:30	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 15:30	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 15:30	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 15:30	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 15:30	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 15:30	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 15:30	79-00-5	
Trichloroethene	**16.7**	ug/L	1.0	0.26	1		09/30/19 15:30	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 15:30	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 15:30	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 15:30	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 15:30	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 15:30	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 15:30	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 15:30	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		09/30/19 15:30	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		09/30/19 15:30	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		09/30/19 15:30	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.06**	Std. Units			1		09/25/19 11:38		
Field Specific Conductance	**906**	umhos/cm			1		09/25/19 11:38		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 11:38	7782-44-7	
REDOX	**-10**	mV			1		09/25/19 11:38		
Turbidity	**2.3**	NTU			1		09/25/19 11:38		
Temperature, Water (C)	**9.86**	deg C			1		09/25/19 11:38		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**157**	mg/L	20.0	5.0	10		10/04/19 15:56	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**158**	mg/L	23.5	7.0	1		10/07/19 13:34		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-26B **Lab ID: 40196011015** Collected: 09/25/19 11:09 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**1410**	ug/L	100	29.6	1		10/02/19 02:11	7439-89-6	
Manganese, Dissolved	**633**	ug/L	5.0	1.1	1		10/02/19 02:11	7439-96-5	
Total Hardness by 2340B, Dissolved	**216**	mg/L	2.0	0.15	1		10/02/19 02:11		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/30/19 15:50	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 15:50	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 15:50	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 15:50	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 15:50	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 15:50	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 15:50	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 15:50	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 15:50	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 15:50	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 15:50	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 15:50	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 15:50	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 15:50	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 15:50	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 15:50	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 15:50	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 15:50	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 15:50	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 15:50	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 15:50	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 15:50	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 15:50	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 15:50	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 15:50	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 15:50	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 15:50	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 15:50	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 15:50	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 15:50	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 15:50	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 15:50	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 15:50	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 15:50	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 15:50	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 15:50	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 15:50	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 15:50	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 15:50	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 15:50	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-26B **Lab ID: 40196011015** Collected: 09/25/19 11:09 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 15:50	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 15:50	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 15:50	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 15:50	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 15:50	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 15:50	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 15:50	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 15:50	127-18-4	
Tetrahydrofuran	**2.9J**	ug/L	20.0	2.3	1		09/30/19 15:50	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 15:50	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 15:50	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 15:50	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 15:50	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 15:50	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 15:50	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 15:50	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 15:50	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 15:50	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 15:50	108-67-8	
Vinyl chloride	**0.52J**	ug/L	1.0	0.17	1		09/30/19 15:50	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 15:50	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 15:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		09/30/19 15:50	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		09/30/19 15:50	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/30/19 15:50	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.85**	Std. Units			1		09/25/19 11:09		
Field Specific Conductance	**414**	umhos/cm			1		09/25/19 11:09		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 11:09	7782-44-7	
REDOX	**-200**	mV			1		09/25/19 11:09		
Turbidity	**17.6**	NTU			1		09/25/19 11:09		
Temperature, Water (C)	**15.2**	deg C			1		09/25/19 11:09		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**12.2**	mg/L	2.0	0.50	1		10/03/19 15:37	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**182**	mg/L	23.5	7.0	1		10/07/19 13:35		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-26C **Lab ID: 40196011016** Collected: 09/25/19 11:10 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**1440**	ug/L	100	29.6	1		10/02/19 00:13	7439-89-6	
Manganese, Dissolved	**2500**	ug/L	5.0	1.1	1		10/02/19 00:13	7439-96-5	
Total Hardness by 2340B, Dissolved	**256**	mg/L	2.0	0.15	1		10/02/19 00:13		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.92J**	ug/L	1.0	0.25	1		09/30/19 16:09	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 16:09	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 16:09	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 16:09	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 16:09	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 16:09	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 16:09	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 16:09	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 16:09	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 16:09	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 16:09	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 16:09	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 16:09	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 16:09	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 16:09	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 16:09	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 16:09	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 16:09	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 16:09	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 16:09	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 16:09	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 16:09	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 16:09	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 16:09	75-71-8	
1,1-Dichloroethane	**0.80J**	ug/L	1.0	0.27	1		09/30/19 16:09	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 16:09	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 16:09	75-35-4	
cis-1,2-Dichloroethene	**0.47J**	ug/L	1.0	0.27	1		09/30/19 16:09	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 16:09	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 16:09	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 16:09	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 16:09	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 16:09	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 16:09	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 16:09	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 16:09	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 16:09	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 16:09	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 16:09	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 16:09	99-87-6	

REPORT OF LABORATORY ANALYSIS

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

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-26C **Lab ID: 40196011016** Collected: 09/25/19 11:10 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 16:09	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 16:09	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 16:09	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 16:09	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 16:09	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 16:09	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 16:09	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 16:09	127-18-4	
Tetrahydrofuran	**16.3J**	ug/L	20.0	2.3	1		09/30/19 16:09	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 16:09	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 16:09	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 16:09	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 16:09	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 16:09	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 16:09	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 16:09	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 16:09	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 16:09	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 16:09	108-67-8	
Vinyl chloride	**3.7**	ug/L	1.0	0.17	1		09/30/19 16:09	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 16:09	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 16:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		09/30/19 16:09	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		09/30/19 16:09	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		09/30/19 16:09	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.42**	Std. Units			1		09/25/19 11:10		
Field Specific Conductance	**523**	umhos/cm			1		09/25/19 11:10		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 11:10	7782-44-7	
REDOX	**-140**	mV			1		09/25/19 11:10		
Turbidity	**31.2**	NTU			1		09/25/19 11:10		
Temperature, Water (C)	**11.21**	deg C			1		09/25/19 11:10		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**22.5**	mg/L	2.0	0.50	1		10/03/19 15:51	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**216**	mg/L	23.5	7.0	1		10/07/19 13:35		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-28A **Lab ID: 40196011017** Collected: 09/25/19 12:32 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**154**	ug/L	40.0	9.7	1		10/02/19 00:20	7440-42-8	
Iron, Dissolved	**6730**	ug/L	100	29.6	1		10/02/19 00:20	7439-89-6	
Manganese, Dissolved	**1580**	ug/L	5.0	1.1	1		10/02/19 00:20	7439-96-5	
Total Hardness by 2340B, Dissolved	**204**	mg/L	2.0	0.15	1		10/02/19 00:20		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.55J**	ug/L	1.0	0.25	1		09/30/19 17:42	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 17:42	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 17:42	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 17:42	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 17:42	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 17:42	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 17:42	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 17:42	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 17:42	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 17:42	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 17:42	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 17:42	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 17:42	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 17:42	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 17:42	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 17:42	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 17:42	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 17:42	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 17:42	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 17:42	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 17:42	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 17:42	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 17:42	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 17:42	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 17:42	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 17:42	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 17:42	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 17:42	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 17:42	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 17:42	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 17:42	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 17:42	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 17:42	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 17:42	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 17:42	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 17:42	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 17:42	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 17:42	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 17:42	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-28A **Lab ID: 40196011017** Collected: 09/25/19 12:32 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 17:42	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 17:42	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 17:42	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 17:42	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 17:42	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 17:42	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 17:42	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 17:42	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 17:42	127-18-4	
Tetrahydrofuran	**10.1J**	ug/L	20.0	2.3	1		09/30/19 17:42	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 17:42	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 17:42	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 17:42	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 17:42	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 17:42	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 17:42	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 17:42	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 17:42	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 17:42	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 17:42	108-67-8	
Vinyl chloride	**0.84J**	ug/L	1.0	0.17	1		09/30/19 17:42	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 17:42	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 17:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		09/30/19 17:42	460-00-4	
Dibromofluoromethane (S)	95	%	70-130		1		09/30/19 17:42	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		09/30/19 17:42	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.58**	Std. Units			1		09/25/19 12:32		
Field Specific Conductance	**534**	umhos/cm			1		09/25/19 12:32		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 12:32	7782-44-7	
REDOX	**-57**	mV			1		09/25/19 12:32		
Turbidity	**15.3**	NTU			1		09/25/19 12:32		
Temperature, Water (C)	**14.94**	deg C			1		09/25/19 12:32		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**33.3**	mg/L	2.0	0.50	1		10/03/19 16:47	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**213**	mg/L	23.5	7.0	1		10/07/19 13:36		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-27B **Lab ID: 40196011018** Collected: 09/25/19 12:36 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**52.5J**	ug/L	100	29.6	1		10/02/19 00:22	7439-89-6	
Manganese, Dissolved	**170**	ug/L	5.0	1.1	1		10/02/19 00:22	7439-96-5	
Total Hardness by 2340B, Dissolved	**99.6**	mg/L	2.0	0.15	1		10/02/19 00:22		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/30/19 18:01	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 18:01	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 18:01	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 18:01	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 18:01	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 18:01	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 18:01	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 18:01	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 18:01	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 18:01	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 18:01	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 18:01	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 18:01	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 18:01	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 18:01	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 18:01	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 18:01	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 18:01	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 18:01	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 18:01	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 18:01	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 18:01	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 18:01	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 18:01	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 18:01	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 18:01	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 18:01	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 18:01	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 18:01	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 18:01	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 18:01	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 18:01	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 18:01	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 18:01	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 18:01	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 18:01	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 18:01	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 18:01	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 18:01	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 18:01	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-27B **Lab ID: 40196011018** Collected: 09/25/19 12:36 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 18:01	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 18:01	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 18:01	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 18:01	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 18:01	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 18:01	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 18:01	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 18:01	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		09/30/19 18:01	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 18:01	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 18:01	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 18:01	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 18:01	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 18:01	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 18:01	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 18:01	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 18:01	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 18:01	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 18:01	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 18:01	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 18:01	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 18:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		09/30/19 18:01	460-00-4	
Dibromofluoromethane (S)	100	%	70-130		1		09/30/19 18:01	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/30/19 18:01	2037-26-5	
Field Data	Analytical Method:								
Field pH	**8.12**	Std. Units			1		09/25/19 12:36		
Field Specific Conductance	**225**	umhos/cm			1		09/25/19 12:36		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 12:36	7782-44-7	
REDOX	**-142**	mV			1		09/25/19 12:36		
Turbidity	**3.8**	NTU			1		09/25/19 12:36		
Temperature, Water (C)	**9.76**	deg C			1		09/25/19 12:36		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**5.5**	mg/L	2.0	0.50	1		10/03/19 17:01	16887-00-6	B
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**77.1**	mg/L	23.5	7.0	1		10/07/19 13:36		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-21A **Lab ID: 40196011019** Collected: 09/25/19 13:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**1180**	ug/L	40.0	9.7	1		10/02/19 00:25	7440-42-8	
Iron, Dissolved	**53600**	ug/L	100	29.6	1		10/02/19 00:25	7439-89-6	
Manganese, Dissolved	**1050**	ug/L	5.0	1.1	1		10/02/19 00:25	7439-96-5	
Total Hardness by 2340B, Dissolved	**805**	mg/L	2.0	0.15	1		10/02/19 00:25		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**4.2**	ug/L	1.0	0.25	1		09/30/19 18:21	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 18:21	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 18:21	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 18:21	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 18:21	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 18:21	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 18:21	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 18:21	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 18:21	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 18:21	56-23-5	
Chlorobenzene	**6.7**	ug/L	2.4	0.71	1		09/30/19 18:21	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 18:21	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 18:21	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 18:21	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 18:21	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 18:21	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 18:21	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 18:21	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 18:21	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 18:21	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 18:21	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 18:21	541-73-1	
1,4-Dichlorobenzene	**1.9J**	ug/L	3.1	0.94	1		09/30/19 18:21	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 18:21	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 18:21	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 18:21	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 18:21	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 18:21	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 18:21	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 18:21	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 18:21	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 18:21	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 18:21	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 18:21	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 18:21	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 18:21	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 18:21	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 18:21	87-68-3	
Isopropylbenzene (Cumene)	**0.60J**	ug/L	5.0	0.39	1		09/30/19 18:21	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-21A **Lab ID: 40196011019** Collected: 09/25/19 13:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 18:21	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 18:21	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 18:21	1634-04-4	
Naphthalene	**8.2**	ug/L	5.0	1.2	1		09/30/19 18:21	91-20-3	
n-Propylbenzene	**0.93J**	ug/L	5.0	0.81	1		09/30/19 18:21	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 18:21	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 18:21	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 18:21	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 18:21	127-18-4	
Tetrahydrofuran	**208**	ug/L	20.0	2.3	1		09/30/19 18:21	109-99-9	
Toluene	**0.65J**	ug/L	5.0	0.17	1		09/30/19 18:21	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 18:21	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 18:21	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 18:21	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 18:21	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 18:21	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 18:21	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 18:21	96-18-4	
1,2,4-Trimethylbenzene	**3.5**	ug/L	2.8	0.84	1		09/30/19 18:21	95-63-6	
1,3,5-Trimethylbenzene	**1.8J**	ug/L	2.9	0.87	1		09/30/19 18:21	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 18:21	75-01-4	
m&p-Xylene	**6.8**	ug/L	2.0	0.47	1		09/30/19 18:21	179601-23-1	
o-Xylene	**1.7**	ug/L	1.0	0.26	1		09/30/19 18:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		09/30/19 18:21	460-00-4	
Dibromofluoromethane (S)	97	%	70-130		1		09/30/19 18:21	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		09/30/19 18:21	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.45**	Std. Units			1		09/25/19 13:44		
Field Specific Conductance	**3710**	umhos/cm			1		09/25/19 13:44		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 13:44	7782-44-7	
REDOX	**-113**	mV			1		09/25/19 13:44		
Turbidity	**62**	NTU			1		09/25/19 13:44		
Temperature, Water (C)	**16.22**	deg C			1		09/25/19 13:44		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**46.3**	mg/L	20.0	5.0	10		10/03/19 17:15	16887-00-6	B
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**1710**	mg/L	235	70.4	10		10/07/19 13:37		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**224**	mg/L	10.0	5.0	20		10/07/19 14:12	7664-41-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-21A **Lab ID: 40196011019** Collected: 09/25/19 13:44 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**212**	mg/L	14.6	4.4	1	10/03/19 11:37	10/03/19 17:16	7727-37-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-2A **Lab ID: 40196011020** Collected: 09/25/19 14:06 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**1320**	ug/L	40.0	9.7	1		10/02/19 00:32	7440-42-8	
Iron, Dissolved	**36800**	ug/L	100	29.6	1		10/02/19 00:32	7439-89-6	
Manganese, Dissolved	**1060**	ug/L	5.0	1.1	1		10/02/19 00:32	7439-96-5	
Total Hardness by 2340B, Dissolved	**890**	mg/L	2.0	0.15	1		10/02/19 00:32		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**17.7**	ug/L	1.0	0.25	1		09/30/19 18:41	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 18:41	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 18:41	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 18:41	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 18:41	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 18:41	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 18:41	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 18:41	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 18:41	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 18:41	56-23-5	
Chlorobenzene	**0.76J**	ug/L	2.4	0.71	1		09/30/19 18:41	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 18:41	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 18:41	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 18:41	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 18:41	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 18:41	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 18:41	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 18:41	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 18:41	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 18:41	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 18:41	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 18:41	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 18:41	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 18:41	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 18:41	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 18:41	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 18:41	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 18:41	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 18:41	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 18:41	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 18:41	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 18:41	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 18:41	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 18:41	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 18:41	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 18:41	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 18:41	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 18:41	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 18:41	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-2A **Lab ID: 40196011020** Collected: 09/25/19 14:06 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 18:41	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 18:41	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 18:41	1634-04-4	
Naphthalene	**3.9J**	ug/L	5.0	1.2	1		09/30/19 18:41	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 18:41	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 18:41	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 18:41	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 18:41	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 18:41	127-18-4	
Tetrahydrofuran	**157**	ug/L	20.0	2.3	1		09/30/19 18:41	109-99-9	
Toluene	**0.35J**	ug/L	5.0	0.17	1		09/30/19 18:41	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 18:41	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 18:41	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 18:41	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 18:41	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 18:41	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 18:41	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 18:41	96-18-4	
1,2,4-Trimethylbenzene	**1.4J**	ug/L	2.8	0.84	1		09/30/19 18:41	95-63-6	
1,3,5-Trimethylbenzene	**1.0J**	ug/L	2.9	0.87	1		09/30/19 18:41	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 18:41	75-01-4	
m&p-Xylene	**2.1**	ug/L	2.0	0.47	1		09/30/19 18:41	179601-23-1	
o-Xylene	**0.51J**	ug/L	1.0	0.26	1		09/30/19 18:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		09/30/19 18:41	460-00-4	
Dibromofluoromethane (S)	100	%	70-130		1		09/30/19 18:41	1868-53-7	HS
Toluene-d8 (S)	100	%	70-130		1		09/30/19 18:41	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.48**	Std. Units			1		09/25/19 14:06		
Field Specific Conductance	**3250**	umhos/cm			1		09/25/19 14:06		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 14:06	7782-44-7	
REDOX	**-82**	mV			1		09/25/19 14:06		
Turbidity	**47**	NTU			1		09/25/19 14:06		
Temperature, Water (C)	**12.83**	deg C			1		09/25/19 14:06		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**57.0**	mg/L	20.0	5.0	10		10/03/19 17:29	16887-00-6	B
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**1660**	mg/L	235	70.4	10		10/07/19 13:37		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**198**	mg/L	10.0	5.0	20		10/07/19 14:13	7664-41-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-2A **Lab ID: 40196011020** Collected: 09/25/19 14:06 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**192**	mg/L	7.3	2.2	1	10/03/19 11:37	10/03/19 17:17	7727-37-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-2B **Lab ID: 40196011021** Collected: 09/25/19 14:30 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**24600**	ug/L	100	29.6	1		10/02/19 00:35	7439-89-6	
Manganese, Dissolved	**1200**	ug/L	5.0	1.1	1		10/02/19 00:35	7439-96-5	
Total Hardness by 2340B, Dissolved	**208**	mg/L	2.0	0.15	1		10/02/19 00:35		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.36J**	ug/L	1.0	0.25	1		09/30/19 22:24	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 22:24	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/30/19 22:24	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/30/19 22:24	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/30/19 22:24	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/30/19 22:24	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 22:24	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/30/19 22:24	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/30/19 22:24	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 22:24	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 22:24	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/30/19 22:24	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/30/19 22:24	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/30/19 22:24	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/30/19 22:24	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/30/19 22:24	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/30/19 22:24	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/30/19 22:24	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/30/19 22:24	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/30/19 22:24	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/30/19 22:24	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/30/19 22:24	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/30/19 22:24	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/30/19 22:24	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 22:24	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 22:24	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/30/19 22:24	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/30/19 22:24	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/30/19 22:24	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 22:24	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/30/19 22:24	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/30/19 22:24	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/30/19 22:24	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/30/19 22:24	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/30/19 22:24	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/30/19 22:24	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/30/19 22:24	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 22:24	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/30/19 22:24	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/30/19 22:24	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-2B **Lab ID: 40196011021** Collected: 09/25/19 14:30 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/30/19 22:24	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/30/19 22:24	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/30/19 22:24	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/30/19 22:24	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/30/19 22:24	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/30/19 22:24	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/30/19 22:24	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/30/19 22:24	127-18-4	
Tetrahydrofuran	**9.3J**	ug/L	20.0	2.3	1		09/30/19 22:24	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/30/19 22:24	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/30/19 22:24	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/30/19 22:24	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/30/19 22:24	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/30/19 22:24	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 22:24	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/30/19 22:24	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/30/19 22:24	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/30/19 22:24	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/30/19 22:24	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/30/19 22:24	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/30/19 22:24	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/30/19 22:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		09/30/19 22:24	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		09/30/19 22:24	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		09/30/19 22:24	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.11**	Std. Units			1		09/25/19 14:30		
Field Specific Conductance	**626**	umhos/cm			1		09/25/19 14:30		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 14:30	7782-44-7	
REDOX	**-138**	mV			1		09/25/19 14:30		
Turbidity	**0**	NTU			1		09/25/19 14:30		
Temperature, Water (C)	**10.18**	deg C			1		09/25/19 14:30		
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**37.8**	mg/L	10.0	2.5	5		10/03/19 17:43	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**209**	mg/L	47.0	14.1	2		10/07/19 13:38		

REPORT OF LABORATORY ANALYSIS

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

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: TRIP BLANK **Lab ID: 40196011022** Collected: 09/25/19 00:00 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/01/19 21:27	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/01/19 21:27	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/01/19 21:27	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/01/19 21:27	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/01/19 21:27	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/01/19 21:27	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 21:27	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/01/19 21:27	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/01/19 21:27	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/01/19 21:27	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 21:27	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/01/19 21:27	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/01/19 21:27	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/01/19 21:27	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/01/19 21:27	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/01/19 21:27	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/01/19 21:27	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/01/19 21:27	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/01/19 21:27	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/01/19 21:27	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 21:27	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/01/19 21:27	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/01/19 21:27	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/01/19 21:27	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/01/19 21:27	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 21:27	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/01/19 21:27	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/01/19 21:27	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/01/19 21:27	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 21:27	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/01/19 21:27	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/01/19 21:27	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/01/19 21:27	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/01/19 21:27	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/01/19 21:27	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/01/19 21:27	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/01/19 21:27	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 21:27	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/01/19 21:27	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/01/19 21:27	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/01/19 21:27	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/01/19 21:27	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 21:27	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/01/19 21:27	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/01/19 21:27	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/01/19 21:27	630-20-6	

REPORT OF LABORATORY ANALYSIS

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

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: TRIP BLANK **Lab ID: 40196011022** Collected: 09/25/19 00:00 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 21:27	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/01/19 21:27	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/01/19 21:27	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/01/19 21:27	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/01/19 21:27	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/01/19 21:27	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/01/19 21:27	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/01/19 21:27	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/01/19 21:27	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/01/19 21:27	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/01/19 21:27	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/01/19 21:27	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/01/19 21:27	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/01/19 21:27	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/01/19 21:27	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/01/19 21:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		10/01/19 21:27	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		10/01/19 21:27	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/01/19 21:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-19B **Lab ID: 40196011023** Collected: 09/24/19 00:00 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.82**	Std. Units			1		09/24/19 00:00		
Field Specific Conductance	**570**	umhos/cm			1		09/24/19 00:00		
Oxygen, Dissolved	**1.92**	mg/L			1		09/24/19 00:00	7782-44-7	
REDOX	**-114**	mV			1		09/24/19 00:00		
Turbidity	**27**	NTU			1		09/24/19 00:00		
Temperature, Water (C)	**17.9**	deg C			1		09/24/19 00:00		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-19C **Lab ID: 40196011024** Collected: 09/24/19 00:00 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**5.92**	Std. Units			1		09/24/19 00:00		
Field Specific Conductance	**425**	umhos/cm			1		09/24/19 00:00		
Oxygen, Dissolved	**1.8**	mg/L			1		09/24/19 00:00	7782-44-7	
REDOX	**-111**	mV			1		09/24/19 00:00		
Turbidity	**32.8**	NTU			1		09/24/19 00:00		
Temperature, Water (C)	**18.58**	deg C			1		09/24/19 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Sample: MW-28B **Lab ID: 40196011025** Collected: 09/25/19 00:00 Received: 09/26/19 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.03**	Std. Units			1		09/25/19 00:00		
Field Specific Conductance	**297**	umhos/cm			1		09/25/19 00:00		
Oxygen, Dissolved	**0**	mg/L			1		09/25/19 00:00	7782-44-7	
REDOX	**-57**	mV			1		09/25/19 00:00		
Temperature, Water (C)	**15.86**	deg C			1		09/25/19 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 335944 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40196011001, 40196011002, 40196011003, 40196011004, 40196011005, 40196011006, 40196011007, 40196011008, 40196011009, 40196011010, 40196011011, 40196011012, 40196011013, 40196011014, 40196011015

METHOD BLANK: 1950628 Matrix: Water
Associated Lab Samples: 40196011001, 40196011002, 40196011003, 40196011004, 40196011005, 40196011006, 40196011007, 40196011008, 40196011009, 40196011010, 40196011011, 40196011012, 40196011013, 40196011014, 40196011015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron, Dissolved	ug/L	<9.7	40.0	10/02/19 01:17	
Iron, Dissolved	ug/L	<29.6	100	10/02/19 01:17	
Manganese, Dissolved	ug/L	<1.1	5.0	10/02/19 01:17	
Total Hardness by 2340B, Dissolved	mg/L	<0.15	2.0	10/02/19 01:17	

LABORATORY CONTROL SAMPLE: 1950629

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	500	522	104	80-120	
Iron, Dissolved	ug/L	5000	4950	99	80-120	
Manganese, Dissolved	ug/L	500	459	92	80-120	
Total Hardness by 2340B, Dissolved	mg/L		33.2			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950630 1950631

Parameter	Units	40196011011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	230	500	500	775	784	109	111	75-125	1	20	
Iron, Dissolved	ug/L	28400	5000	5000	32600	33100	85	95	75-125	1	20	
Manganese, Dissolved	ug/L	2160	500	500	2570	2580	83	84	75-125	0	20	
Total Hardness by 2340B, Dissolved	mg/L	252			277	283				2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 335948 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40196011016, 40196011017, 40196011018, 40196011019, 40196011020, 40196011021

METHOD BLANK: 1950632 Matrix: Water
Associated Lab Samples: 40196011016, 40196011017, 40196011018, 40196011019, 40196011020, 40196011021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron, Dissolved	ug/L	<9.7	40.0	10/02/19 00:08	
Iron, Dissolved	ug/L	<29.6	100	10/02/19 00:08	
Manganese, Dissolved	ug/L	<1.1	5.0	10/02/19 00:08	
Total Hardness by 2340B, Dissolved	mg/L	0.27J	2.0	10/02/19 00:08	

LABORATORY CONTROL SAMPLE: 1950633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	500	528	106	80-120	
Iron, Dissolved	ug/L	5000	4930	99	80-120	
Manganese, Dissolved	ug/L	500	450	90	80-120	
Total Hardness by 2340B, Dissolved	mg/L		33.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950634 1950635

Parameter	Units	40196011016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	50.9	500	500	583	584	106	107	75-125	0	20	
Iron, Dissolved	ug/L	1440	5000	5000	6350	6340	98	98	75-125	0	20	
Manganese, Dissolved	ug/L	2500	500	500	2880	2900	76	79	75-125	1	20	
Total Hardness by 2340B, Dissolved	mg/L	256			280	279				0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 335603 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40196011001, 40196011002, 40196011003, 40196011004, 40196011005, 40196011006, 40196011007, 40196011008, 40196011009, 40196011010, 40196011011, 40196011012, 40196011013, 40196011014, 40196011015, 40196011016, 40196011017, 40196011018, 40196011019, 40196011020

METHOD BLANK: 1948245 Matrix: Water
Associated Lab Samples: 40196011001, 40196011002, 40196011003, 40196011004, 40196011005, 40196011006, 40196011007, 40196011008, 40196011009, 40196011010, 40196011011, 40196011012, 40196011013, 40196011014, 40196011015, 40196011016, 40196011017, 40196011018, 40196011019, 40196011020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	09/30/19 08:19	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	09/30/19 08:19	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	09/30/19 08:19	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	09/30/19 08:19	
1,1-Dichloroethane	ug/L	<0.27	1.0	09/30/19 08:19	
1,1-Dichloroethene	ug/L	<0.24	1.0	09/30/19 08:19	
1,1-Dichloropropene	ug/L	<0.54	1.8	09/30/19 08:19	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	09/30/19 08:19	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	09/30/19 08:19	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	09/30/19 08:19	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	09/30/19 08:19	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	09/30/19 08:19	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	09/30/19 08:19	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	09/30/19 08:19	
1,2-Dichloroethane	ug/L	<0.28	1.0	09/30/19 08:19	
1,2-Dichloropropane	ug/L	<0.28	1.0	09/30/19 08:19	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	09/30/19 08:19	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	09/30/19 08:19	
1,3-Dichloropropane	ug/L	<0.83	2.8	09/30/19 08:19	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	09/30/19 08:19	
2,2-Dichloropropane	ug/L	<2.3	7.6	09/30/19 08:19	
2-Chlorotoluene	ug/L	<0.93	5.0	09/30/19 08:19	
4-Chlorotoluene	ug/L	<0.76	2.5	09/30/19 08:19	
Benzene	ug/L	<0.25	1.0	09/30/19 08:19	
Bromobenzene	ug/L	<0.24	1.0	09/30/19 08:19	
Bromochloromethane	ug/L	<0.36	5.0	09/30/19 08:19	
Bromodichloromethane	ug/L	<0.36	1.2	09/30/19 08:19	
Bromoform	ug/L	<4.0	13.2	09/30/19 08:19	
Bromomethane	ug/L	<0.97	5.0	09/30/19 08:19	
Carbon tetrachloride	ug/L	<0.17	1.0	09/30/19 08:19	
Chlorobenzene	ug/L	<0.71	2.4	09/30/19 08:19	
Chloroethane	ug/L	<1.3	5.0	09/30/19 08:19	
Chloroform	ug/L	<1.3	5.0	09/30/19 08:19	
Chloromethane	ug/L	<2.2	7.3	09/30/19 08:19	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	09/30/19 08:19	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	09/30/19 08:19	
Dibromochloromethane	ug/L	<2.6	8.7	09/30/19 08:19	
Dibromomethane	ug/L	<0.94	3.1	09/30/19 08:19	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

METHOD BLANK: 1948245 Matrix: Water

Associated Lab Samples: 40196011001, 40196011002, 40196011003, 40196011004, 40196011005, 40196011006, 40196011007, 40196011008, 40196011009, 40196011010, 40196011011, 40196011012, 40196011013, 40196011014, 40196011015, 40196011016, 40196011017, 40196011018, 40196011019, 40196011020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	<0.50	5.0	09/30/19 08:19	
Diisopropyl ether	ug/L	<1.9	6.3	09/30/19 08:19	
Ethylbenzene	ug/L	<0.22	1.0	09/30/19 08:19	
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	09/30/19 08:19	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	09/30/19 08:19	
m&p-Xylene	ug/L	<0.47	2.0	09/30/19 08:19	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	09/30/19 08:19	
Methylene Chloride	ug/L	<0.58	5.0	09/30/19 08:19	
n-Butylbenzene	ug/L	<0.71	2.4	09/30/19 08:19	
n-Propylbenzene	ug/L	<0.81	5.0	09/30/19 08:19	
Naphthalene	ug/L	<1.2	5.0	09/30/19 08:19	
o-Xylene	ug/L	<0.26	1.0	09/30/19 08:19	
p-Isopropyltoluene	ug/L	<0.80	2.7	09/30/19 08:19	
sec-Butylbenzene	ug/L	<0.85	5.0	09/30/19 08:19	
Styrene	ug/L	<0.47	1.6	09/30/19 08:19	
tert-Butylbenzene	ug/L	<0.30	1.0	09/30/19 08:19	
Tetrachloroethene	ug/L	<0.33	1.1	09/30/19 08:19	
Tetrahydrofuran	ug/L	<2.3	20.0	09/30/19 08:19	
Toluene	ug/L	<0.17	5.0	09/30/19 08:19	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	09/30/19 08:19	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	09/30/19 08:19	
Trichloroethene	ug/L	<0.26	1.0	09/30/19 08:19	
Trichlorofluoromethane	ug/L	<0.21	1.0	09/30/19 08:19	
Vinyl chloride	ug/L	<0.17	1.0	09/30/19 08:19	
4-Bromofluorobenzene (S)	%	96	70-130	09/30/19 08:19	
Dibromofluoromethane (S)	%	95	70-130	09/30/19 08:19	
Toluene-d8 (S)	%	98	70-130	09/30/19 08:19	

LABORATORY CONTROL SAMPLE: 1948246

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	54.8	110	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	54.6	109	70-130	
1,1,2-Trichloroethane	ug/L	50	53.6	107	70-130	
1,1-Dichloroethane	ug/L	50	59.9	120	73-150	
1,1-Dichloroethene	ug/L	50	45.8	92	73-138	
1,2,4-Trichlorobenzene	ug/L	50	52.6	105	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	54.1	108	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	55.3	111	70-130	
1,2-Dichlorobenzene	ug/L	50	52.1	104	70-130	
1,2-Dichloroethane	ug/L	50	53.5	107	75-140	
1,2-Dichloropropane	ug/L	50	56.2	112	73-135	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

LABORATORY CONTROL SAMPLE: 1948246

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichlorobenzene	ug/L	50	53.8	108	70-130	
1,4-Dichlorobenzene	ug/L	50	52.0	104	70-130	
Benzene	ug/L	50	54.4	109	70-130	
Bromodichloromethane	ug/L	50	53.5	107	70-130	
Bromoform	ug/L	50	45.4	91	68-129	
Bromomethane	ug/L	50	26.2	52	18-159	
Carbon tetrachloride	ug/L	50	53.2	106	70-130	
Chlorobenzene	ug/L	50	54.6	109	70-130	
Chloroethane	ug/L	50	37.2	74	53-147	
Chloroform	ug/L	50	53.3	107	74-136	
Chloromethane	ug/L	50	32.8	66	29-115	
cis-1,2-Dichloroethene	ug/L	50	51.3	103	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.3	101	70-130	
Dibromochloromethane	ug/L	50	48.8	98	70-130	
Dichlorodifluoromethane	ug/L	50	31.2	62	10-130	
Ethylbenzene	ug/L	50	54.3	109	80-124	
Isopropylbenzene (Cumene)	ug/L	50	55.0	110	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	55.6	111	54-137	
Methylene Chloride	ug/L	50	52.2	104	73-138	
o-Xylene	ug/L	50	54.1	108	70-130	
Styrene	ug/L	50	49.5	99	70-130	
Tetrachloroethene	ug/L	50	56.3	113	70-130	
Toluene	ug/L	50	54.1	108	80-126	
trans-1,2-Dichloroethene	ug/L	50	55.4	111	73-145	
trans-1,3-Dichloropropene	ug/L	50	51.2	102	70-130	
Trichloroethene	ug/L	50	56.2	112	70-130	
Trichlorofluoromethane	ug/L	50	39.1	78	76-147	
Vinyl chloride	ug/L	50	34.9	70	51-120	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			94	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1948247 1948248

Parameter	Units	40196011011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	53.6	51.8	107	104	70-130	4	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	54.1	53.0	108	106	70-130	2	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	54.3	52.6	109	105	70-137	3	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	60.1	59.6	120	119	73-153	1	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	46.1	43.3	92	87	73-138	6	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	54.3	53.9	108	107	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	57.0	53.6	114	107	58-129	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1948247 1948248

Parameter	Units	40196011011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	55.7	54.6	111	109	70-130	2	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	52.3	50.6	104	101	70-130	3	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	53.6	51.4	107	103	75-140	4	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	54.7	54.3	109	109	71-138	1	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	51.6	50.8	103	102	70-130	2	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	50.8	51.5	101	102	70-130	1	20	
Benzene	ug/L	1.1	50	50	56.0	52.8	110	103	70-130	6	20	
Bromodichloromethane	ug/L	<0.36	50	50	53.2	52.9	106	106	70-130	1	20	
Bromoform	ug/L	<4.0	50	50	47.6	46.6	95	93	68-129	2	20	
Bromomethane	ug/L	<0.97	50	50	27.4	27.3	55	55	15-170	0	20	
Carbon tetrachloride	ug/L	<0.17	50	50	52.6	51.5	105	103	70-130	2	20	
Chlorobenzene	ug/L	<0.71	50	50	56.3	55.4	111	110	70-130	2	20	
Chloroethane	ug/L	<1.3	50	50	37.7	35.0	75	70	51-148	7	20	
Chloroform	ug/L	<1.3	50	50	53.7	50.2	107	100	74-136	7	20	
Chloromethane	ug/L	<2.2	50	50	33.7	31.1	67	61	23-115	8	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	51.2	50.4	102	101	70-131	1	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	49.2	48.3	98	97	70-130	2	20	
Dibromochloromethane	ug/L	<2.6	50	50	50.2	49.9	100	100	70-130	0	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	30.4	29.3	61	59	10-132	4	20	
Ethylbenzene	ug/L	<0.22	50	50	55.0	53.3	110	107	80-125	3	20	
Isopropylbenzene (Cumene)	ug/L	<0.39	50	50	55.4	54.0	111	108	70-130	3	20	
m&p-Xylene	ug/L	0.75J	100	100	109	108	108	107	70-130	2	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	55.5	52.7	111	105	51-145	5	20	
Methylene Chloride	ug/L	<0.58	50	50	54.1	51.5	108	103	73-140	5	20	
o-Xylene	ug/L	<0.26	50	50	54.6	54.3	109	109	70-130	0	20	
Styrene	ug/L	<0.47	50	50	50.0	50.6	100	101	70-130	1	20	
Tetrachloroethene	ug/L	<0.33	50	50	57.7	56.0	115	112	70-130	3	20	
Toluene	ug/L	<0.17	50	50	54.6	53.6	109	107	80-131	2	20	
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	56.8	53.2	114	106	73-148	7	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	52.4	51.4	105	103	70-130	2	20	
Trichloroethene	ug/L	<0.26	50	50	54.5	53.0	109	106	70-130	3	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	38.6	37.1	77	74	74-147	4	20	
Vinyl chloride	ug/L	0.29J	50	50	35.1	34.4	70	68	41-129	2	20	
4-Bromofluorobenzene (S)	%						104	103	70-130			
Dibromofluoromethane (S)	%						100	93	70-130			
Toluene-d8 (S)	%						100	100	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 335606
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 40196011021

METHOD BLANK: 1948273
Matrix: Water
Associated Lab Samples: 40196011021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	09/30/19 16:47	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	09/30/19 16:47	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	09/30/19 16:47	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	09/30/19 16:47	
1,1-Dichloroethane	ug/L	<0.27	1.0	09/30/19 16:47	
1,1-Dichloroethene	ug/L	<0.24	1.0	09/30/19 16:47	
1,1-Dichloropropene	ug/L	<0.54	1.8	09/30/19 16:47	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	09/30/19 16:47	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	09/30/19 16:47	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	09/30/19 16:47	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	09/30/19 16:47	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	09/30/19 16:47	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	09/30/19 16:47	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	09/30/19 16:47	
1,2-Dichloroethane	ug/L	<0.28	1.0	09/30/19 16:47	
1,2-Dichloropropane	ug/L	<0.28	1.0	09/30/19 16:47	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	09/30/19 16:47	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	09/30/19 16:47	
1,3-Dichloropropane	ug/L	<0.83	2.8	09/30/19 16:47	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	09/30/19 16:47	
2,2-Dichloropropane	ug/L	<2.3	7.6	09/30/19 16:47	
2-Chlorotoluene	ug/L	<0.93	5.0	09/30/19 16:47	
4-Chlorotoluene	ug/L	<0.76	2.5	09/30/19 16:47	
Benzene	ug/L	<0.25	1.0	09/30/19 16:47	
Bromobenzene	ug/L	<0.24	1.0	09/30/19 16:47	
Bromochloromethane	ug/L	<0.36	5.0	09/30/19 16:47	
Bromodichloromethane	ug/L	<0.36	1.2	09/30/19 16:47	
Bromoform	ug/L	<4.0	13.2	09/30/19 16:47	
Bromomethane	ug/L	<0.97	5.0	09/30/19 16:47	
Carbon tetrachloride	ug/L	<0.17	1.0	09/30/19 16:47	
Chlorobenzene	ug/L	<0.71	2.4	09/30/19 16:47	
Chloroethane	ug/L	<1.3	5.0	09/30/19 16:47	
Chloroform	ug/L	<1.3	5.0	09/30/19 16:47	
Chloromethane	ug/L	<2.2	7.3	09/30/19 16:47	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	09/30/19 16:47	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	09/30/19 16:47	
Dibromochloromethane	ug/L	<2.6	8.7	09/30/19 16:47	
Dibromomethane	ug/L	<0.94	3.1	09/30/19 16:47	
Dichlorodifluoromethane	ug/L	<0.50	5.0	09/30/19 16:47	
Diisopropyl ether	ug/L	<1.9	6.3	09/30/19 16:47	
Ethylbenzene	ug/L	<0.22	1.0	09/30/19 16:47	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

METHOD BLANK: 1948273 Matrix: Water
Associated Lab Samples: 40196011021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	09/30/19 16:47	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	09/30/19 16:47	
m&p-Xylene	ug/L	<0.47	2.0	09/30/19 16:47	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	09/30/19 16:47	
Methylene Chloride	ug/L	<0.58	5.0	09/30/19 16:47	
n-Butylbenzene	ug/L	<0.71	2.4	09/30/19 16:47	
n-Propylbenzene	ug/L	<0.81	5.0	09/30/19 16:47	
Naphthalene	ug/L	<1.2	5.0	09/30/19 16:47	
o-Xylene	ug/L	<0.26	1.0	09/30/19 16:47	
p-Isopropyltoluene	ug/L	<0.80	2.7	09/30/19 16:47	
sec-Butylbenzene	ug/L	<0.85	5.0	09/30/19 16:47	
Styrene	ug/L	<0.47	1.6	09/30/19 16:47	
tert-Butylbenzene	ug/L	<0.30	1.0	09/30/19 16:47	
Tetrachloroethene	ug/L	<0.33	1.1	09/30/19 16:47	
Tetrahydrofuran	ug/L	<2.3	20.0	09/30/19 16:47	
Toluene	ug/L	<0.17	5.0	09/30/19 16:47	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	09/30/19 16:47	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	09/30/19 16:47	
Trichloroethene	ug/L	<0.26	1.0	09/30/19 16:47	
Trichlorofluoromethane	ug/L	<0.21	1.0	09/30/19 16:47	
Vinyl chloride	ug/L	<0.17	1.0	09/30/19 16:47	
4-Bromofluorobenzene (S)	%	92	70-130	09/30/19 16:47	
Dibromofluoromethane (S)	%	104	70-130	09/30/19 16:47	
Toluene-d8 (S)	%	95	70-130	09/30/19 16:47	

LABORATORY CONTROL SAMPLE: 1948274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	58.5	117	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.2	110	70-130	
1,1,2-Trichloroethane	ug/L	50	51.2	102	70-130	
1,1-Dichloroethane	ug/L	50	61.3	123	73-150	
1,1-Dichloroethene	ug/L	50	56.5	113	73-138	
1,2,4-Trichlorobenzene	ug/L	50	49.8	100	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	44.5	89	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	47.4	95	70-130	
1,2-Dichlorobenzene	ug/L	50	54.3	109	70-130	
1,2-Dichloroethane	ug/L	50	57.6	115	75-140	
1,2-Dichloropropane	ug/L	50	65.3	131	73-135	
1,3-Dichlorobenzene	ug/L	50	54.0	108	70-130	
1,4-Dichlorobenzene	ug/L	50	55.9	112	70-130	
Benzene	ug/L	50	58.1	116	70-130	
Bromodichloromethane	ug/L	50	61.0	122	70-130	
Bromoform	ug/L	50	44.8	90	68-129	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

LABORATORY CONTROL SAMPLE: 1948274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	50	40.0	80	18-159	
Carbon tetrachloride	ug/L	50	60.5	121	70-130	
Chlorobenzene	ug/L	50	55.1	110	70-130	
Chloroethane	ug/L	50	46.6	93	53-147	
Chloroform	ug/L	50	59.3	119	74-136	
Chloromethane	ug/L	50	36.3	73	29-115	
cis-1,2-Dichloroethene	ug/L	50	54.7	109	70-130	
cis-1,3-Dichloropropene	ug/L	50	58.3	117	70-130	
Dibromochloromethane	ug/L	50	47.2	94	70-130	
Dichlorodifluoromethane	ug/L	50	28.5	57	10-130	
Ethylbenzene	ug/L	50	60.4	121	80-124	
Isopropylbenzene (Cumene)	ug/L	50	60.4	121	70-130	
m&p-Xylene	ug/L	100	117	117	70-130	
Methyl-tert-butyl ether	ug/L	50	43.1	86	54-137	
Methylene Chloride	ug/L	50	57.8	116	73-138	
o-Xylene	ug/L	50	56.5	113	70-130	
Styrene	ug/L	50	59.0	118	70-130	
Tetrachloroethene	ug/L	50	48.3	97	70-130	
Toluene	ug/L	50	53.6	107	80-126	
trans-1,2-Dichloroethene	ug/L	50	59.1	118	73-145	
trans-1,3-Dichloropropene	ug/L	50	45.8	92	70-130	
Trichloroethene	ug/L	50	64.5	129	70-130	
Trichlorofluoromethane	ug/L	50	53.0	106	76-147	
Vinyl chloride	ug/L	50	39.3	79	51-120	
4-Bromofluorobenzene (S)	%			104	70-130	
Dibromofluoromethane (S)	%			107	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1949737 1949738

Parameter	Units	40196019021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	57.6	58.2	115	116	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	55.1	53.6	110	107	70-130	3	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	51.1	52.2	102	104	70-137	2	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	58.8	58.9	118	118	73-153	0	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	51.1	54.6	102	109	73-138	7	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	49.5	51.4	99	103	70-130	4	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	49.7	47.0	99	94	58-129	6	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	48.2	49.2	96	98	70-130	2	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	51.9	53.3	104	107	70-130	3	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	54.8	55.2	110	110	75-140	1	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	56.1	55.5	112	111	71-138	1	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	51.1	52.5	102	105	70-130	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1949737 1949738

Parameter	Units	40196019021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	<0.94	50	50	52.2	53.0	104	106	70-130	2	20	
Benzene	ug/L	<0.25	50	50	55.0	56.4	110	113	70-130	2	20	
Bromodichloromethane	ug/L	<0.36	50	50	52.0	51.2	104	102	70-130	2	20	
Bromoform	ug/L	<4.0	50	50	48.7	48.7	97	97	68-129	0	20	
Bromomethane	ug/L	<0.97	50	50	43.3	47.1	87	94	15-170	9	20	
Carbon tetrachloride	ug/L	<0.17	50	50	56.4	57.9	113	116	70-130	3	20	
Chlorobenzene	ug/L	<0.71	50	50	52.8	51.9	106	104	70-130	2	20	
Chloroethane	ug/L	<1.3	50	50	41.6	44.9	83	90	51-148	7	20	
Chloroform	ug/L	<1.3	50	50	55.8	57.1	112	114	74-136	2	20	
Chloromethane	ug/L	3.1J	50	50	36.1	35.9	66	66	23-115	0	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	51.9	51.2	104	102	70-131	1	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	50.8	50.2	102	100	70-130	1	20	
Dibromochloromethane	ug/L	<2.6	50	50	46.2	47.6	92	95	70-130	3	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	26.1	25.0	52	50	10-132	4	20	
Ethylbenzene	ug/L	<0.22	50	50	53.6	54.3	107	109	80-125	1	20	
Isopropylbenzene (Cumene)	ug/L	<0.39	50	50	53.3	54.6	107	109	70-130	2	20	
m&p-Xylene	ug/L	<0.47	100	100	106	108	106	108	70-130	2	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	43.5	42.8	87	86	51-145	2	20	
Methylene Chloride	ug/L	<0.58	50	50	53.9	52.9	108	106	73-140	2	20	
o-Xylene	ug/L	<0.26	50	50	50.8	51.7	102	103	70-130	2	20	
Styrene	ug/L	<0.47	50	50	52.4	53.5	105	107	70-130	2	20	
Tetrachloroethene	ug/L	<0.33	50	50	51.9	49.7	104	99	70-130	4	20	
Toluene	ug/L	<0.17	50	50	54.5	52.5	109	105	80-131	4	20	
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	54.2	54.5	108	109	73-148	1	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	47.7	48.3	95	97	70-130	1	20	
Trichloroethene	ug/L	2.8	50	50	57.8	57.6	110	110	70-130	0	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	48.8	49.4	98	99	74-147	1	20	
Vinyl chloride	ug/L	<0.17	50	50	39.7	40.3	79	81	41-129	1	20	
4-Bromofluorobenzene (S)	%						96	97	70-130			
Dibromofluoromethane (S)	%						107	108	70-130			
Toluene-d8 (S)	%						101	99	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 335812
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 40196011022

METHOD BLANK: 1950104
Matrix: Water
Associated Lab Samples: 40196011022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	10/01/19 16:58	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/01/19 16:58	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	10/01/19 16:58	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/01/19 16:58	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/01/19 16:58	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/01/19 16:58	
1,1-Dichloropropene	ug/L	<0.54	1.8	10/01/19 16:58	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	10/01/19 16:58	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	10/01/19 16:58	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	10/01/19 16:58	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	10/01/19 16:58	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/01/19 16:58	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/01/19 16:58	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/01/19 16:58	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/01/19 16:58	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/01/19 16:58	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	10/01/19 16:58	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/01/19 16:58	
1,3-Dichloropropane	ug/L	<0.83	2.8	10/01/19 16:58	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/01/19 16:58	
2,2-Dichloropropane	ug/L	<2.3	7.6	10/01/19 16:58	
2-Chlorotoluene	ug/L	<0.93	5.0	10/01/19 16:58	
4-Chlorotoluene	ug/L	<0.76	2.5	10/01/19 16:58	
Benzene	ug/L	<0.25	1.0	10/01/19 16:58	
Bromobenzene	ug/L	<0.24	1.0	10/01/19 16:58	
Bromochloromethane	ug/L	<0.36	5.0	10/01/19 16:58	
Bromodichloromethane	ug/L	<0.36	1.2	10/01/19 16:58	
Bromoform	ug/L	<4.0	13.2	10/01/19 16:58	
Bromomethane	ug/L	<0.97	5.0	10/01/19 16:58	
Carbon tetrachloride	ug/L	<0.17	1.0	10/01/19 16:58	
Chlorobenzene	ug/L	<0.71	2.4	10/01/19 16:58	
Chloroethane	ug/L	<1.3	5.0	10/01/19 16:58	
Chloroform	ug/L	<1.3	5.0	10/01/19 16:58	
Chloromethane	ug/L	<2.2	7.3	10/01/19 16:58	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/01/19 16:58	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/01/19 16:58	
Dibromochloromethane	ug/L	<2.6	8.7	10/01/19 16:58	
Dibromomethane	ug/L	<0.94	3.1	10/01/19 16:58	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/01/19 16:58	
Diisopropyl ether	ug/L	<1.9	6.3	10/01/19 16:58	
Ethylbenzene	ug/L	<0.22	1.0	10/01/19 16:58	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

METHOD BLANK: 1950104 Matrix: Water
Associated Lab Samples: 40196011022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	10/01/19 16:58	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	10/01/19 16:58	
m&p-Xylene	ug/L	<0.47	2.0	10/01/19 16:58	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/01/19 16:58	
Methylene Chloride	ug/L	<0.58	5.0	10/01/19 16:58	
n-Butylbenzene	ug/L	<0.71	2.4	10/01/19 16:58	
n-Propylbenzene	ug/L	<0.81	5.0	10/01/19 16:58	
Naphthalene	ug/L	<1.2	5.0	10/01/19 16:58	
o-Xylene	ug/L	<0.26	1.0	10/01/19 16:58	
p-Isopropyltoluene	ug/L	<0.80	2.7	10/01/19 16:58	
sec-Butylbenzene	ug/L	<0.85	5.0	10/01/19 16:58	
Styrene	ug/L	<0.47	1.6	10/01/19 16:58	
tert-Butylbenzene	ug/L	<0.30	1.0	10/01/19 16:58	
Tetrachloroethene	ug/L	<0.33	1.1	10/01/19 16:58	
Tetrahydrofuran	ug/L	<2.3	20.0	10/01/19 16:58	
Toluene	ug/L	<0.17	5.0	10/01/19 16:58	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/01/19 16:58	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/01/19 16:58	
Trichloroethene	ug/L	<0.26	1.0	10/01/19 16:58	
Trichlorofluoromethane	ug/L	<0.21	1.0	10/01/19 16:58	
Vinyl chloride	ug/L	<0.17	1.0	10/01/19 16:58	
4-Bromofluorobenzene (S)	%	97	70-130	10/01/19 16:58	
Dibromofluoromethane (S)	%	106	70-130	10/01/19 16:58	
Toluene-d8 (S)	%	98	70-130	10/01/19 16:58	

LABORATORY CONTROL SAMPLE: 1950105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	59.9	120	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.5	111	70-130	
1,1,2-Trichloroethane	ug/L	50	55.9	112	70-130	
1,1-Dichloroethane	ug/L	50	60.5	121	73-150	
1,1-Dichloroethene	ug/L	50	54.3	109	73-138	
1,2,4-Trichlorobenzene	ug/L	50	49.1	98	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.0	96	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	53.2	106	70-130	
1,2-Dichloroethane	ug/L	50	57.4	115	75-140	
1,2-Dichloropropane	ug/L	50	56.5	113	73-135	
1,3-Dichlorobenzene	ug/L	50	53.2	106	70-130	
1,4-Dichlorobenzene	ug/L	50	52.9	106	70-130	
Benzene	ug/L	50	58.6	117	70-130	
Bromodichloromethane	ug/L	50	52.4	105	70-130	
Bromoform	ug/L	50	49.3	99	68-129	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

LABORATORY CONTROL SAMPLE: 1950105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	50	43.6	87	18-159	
Carbon tetrachloride	ug/L	50	58.1	116	70-130	
Chlorobenzene	ug/L	50	51.9	104	70-130	
Chloroethane	ug/L	50	46.3	93	53-147	
Chloroform	ug/L	50	57.8	116	74-136	
Chloromethane	ug/L	50	39.9	80	29-115	
cis-1,2-Dichloroethene	ug/L	50	53.6	107	70-130	
cis-1,3-Dichloropropene	ug/L	50	51.3	103	70-130	
Dibromochloromethane	ug/L	50	49.1	98	70-130	
Dichlorodifluoromethane	ug/L	50	35.9	72	10-130	
Ethylbenzene	ug/L	50	54.6	109	80-124	
Isopropylbenzene (Cumene)	ug/L	50	54.1	108	70-130	
m&p-Xylene	ug/L	100	107	107	70-130	
Methyl-tert-butyl ether	ug/L	50	47.7	95	54-137	
Methylene Chloride	ug/L	50	54.1	108	73-138	
o-Xylene	ug/L	50	51.5	103	70-130	
Styrene	ug/L	50	53.4	107	70-130	
Tetrachloroethene	ug/L	50	51.4	103	70-130	
Toluene	ug/L	50	53.5	107	80-126	
trans-1,2-Dichloroethene	ug/L	50	58.7	117	73-145	
trans-1,3-Dichloropropene	ug/L	50	51.4	103	70-130	
Trichloroethene	ug/L	50	55.9	112	70-130	
Trichlorofluoromethane	ug/L	50	52.7	105	76-147	
Vinyl chloride	ug/L	50	43.1	86	51-120	
4-Bromofluorobenzene (S)	%			96	70-130	
Dibromofluoromethane (S)	%			101	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950106 1950107

Parameter	Units	40196133022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	60.3	62.3	121	125	70-130	3	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	57.1	60.6	114	121	70-130	6	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	49.8	53.2	100	106	70-137	7	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	62.4	64.8	125	130	73-153	4	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	54.3	56.4	109	113	73-138	4	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	52.2	52.8	104	106	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	48.7	53.9	97	108	58-129	10	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	46.8	50.4	94	101	70-130	7	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	53.4	54.0	107	108	70-130	1	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	59.0	61.3	118	123	75-140	4	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	65.1	61.5	130	123	71-138	6	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	52.3	53.1	105	106	70-130	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950106 1950107

Parameter	Units	40196133022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	<0.94	50	50	52.4	54.5	105	109	70-130	4	20	
Benzene	ug/L	<0.25	50	50	56.7	60.0	113	120	70-130	6	20	
Bromodichloromethane	ug/L	<0.36	50	50	60.4	58.4	121	117	70-130	3	20	
Bromoform	ug/L	<4.0	50	50	42.9	46.7	86	93	68-129	9	20	
Bromomethane	ug/L	<0.97	50	50	45.9	42.4	92	85	15-170	8	20	
Carbon tetrachloride	ug/L	<0.17	50	50	59.0	61.4	118	123	70-130	4	20	
Chlorobenzene	ug/L	<0.71	50	50	53.0	53.4	106	107	70-130	1	20	
Chloroethane	ug/L	<1.3	50	50	46.6	46.5	93	93	51-148	0	20	
Chloroform	ug/L	<1.3	50	50	58.5	59.7	117	119	74-136	2	20	
Chloromethane	ug/L	<2.2	50	50	39.8	39.8	78	78	23-115	0	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	56.7	55.8	113	112	70-131	2	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	59.6	56.1	119	112	70-130	6	20	
Dibromochloromethane	ug/L	<2.6	50	50	46.1	49.0	92	98	70-130	6	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	34.3	34.7	69	69	10-132	1	20	
Ethylbenzene	ug/L	10.2	50	50	69.2	69.1	118	118	80-125	0	20	
Isopropylbenzene (Cumene)	ug/L	0.48J	50	50	58.7	59.6	116	118	70-130	1	20	
m&p-Xylene	ug/L	2.6	100	100	115	117	112	114	70-130	2	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	46.2	51.6	92	103	51-145	11	20	
Methylene Chloride	ug/L	<0.58	50	50	55.0	56.2	110	112	73-140	2	20	
o-Xylene	ug/L	10.4	50	50	66.5	66.5	112	112	70-130	0	20	
Styrene	ug/L	<0.47	50	50	56.9	57.9	114	116	70-130	2	20	
Tetrachloroethene	ug/L	<0.33	50	50	46.7	47.4	93	95	70-130	1	20	
Toluene	ug/L	0.28J	50	50	51.8	52.6	103	105	80-131	2	20	
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	56.8	60.0	114	120	73-148	6	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	45.6	49.0	91	98	70-130	7	20	
Trichloroethene	ug/L	<0.26	50	50	63.8	60.9	128	122	70-130	5	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	53.0	54.3	106	109	74-147	3	20	
Vinyl chloride	ug/L	<0.17	50	50	41.6	43.4	83	87	41-129	4	20	
4-Bromofluorobenzene (S)	%						104	103	70-130			
Dibromofluoromethane (S)	%						112	113	70-130			
Toluene-d8 (S)	%						97	95	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 335874 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40196011001, 40196011002, 40196011003, 40196011004, 40196011005, 40196011006, 40196011007, 40196011008, 40196011009, 40196011010, 40196011011, 40196011012

METHOD BLANK: 1950263 Matrix: Water
Associated Lab Samples: 40196011001, 40196011002, 40196011003, 40196011004, 40196011005, 40196011006, 40196011007, 40196011008, 40196011009, 40196011010, 40196011011, 40196011012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	10/04/19 13:26	

LABORATORY CONTROL SAMPLE: 1950264

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950265 1950266

Parameter	Units	40195956001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	81.6	100	100	178	187	96	106	90-110	5	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950267 1950268

Parameter	Units	40196011011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	40.2	100	100	137	136	97	96	90-110	1	15	

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 336128 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40196011013, 40196011014, 40196011015, 40196011016, 40196011017, 40196011018, 40196011019, 40196011020, 40196011021

METHOD BLANK: 1951559 Matrix: Water
Associated Lab Samples: 40196011013, 40196011014, 40196011015, 40196011016, 40196011017, 40196011018, 40196011019, 40196011020, 40196011021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	0.66J	2.0	10/03/19 13:46	

LABORATORY CONTROL SAMPLE: 1951560

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.5	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1951561 1951562

Parameter	Units	40196305001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	91.0	200	200	304	299	107	104	90-110	2	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1951563 1951564

Parameter	Units	40196071003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	251	200	200	451	461	100	105	90-110	2	15	

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 336499 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40196011001, 40196011002, 40196011003, 40196011004, 40196011005, 40196011006

METHOD BLANK: 1954752 Matrix: Water
Associated Lab Samples: 40196011001, 40196011002, 40196011003, 40196011004, 40196011005, 40196011006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	10/07/19 11:55	

LABORATORY CONTROL SAMPLE: 1954753

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	104	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1954754 1954755

Parameter	Units	40196011006 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	446	200	200	653	646	103	100	90-110	1	20	

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 336528 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40196011007

METHOD BLANK: 1954833 Matrix: Water
Associated Lab Samples: 40196011007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	10/07/19 13:05	

LABORATORY CONTROL SAMPLE: 1954834

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	91.6	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1954835 1954836

Parameter	Units	40195929004 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	279	200	200	485	475	103	98	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1954837 1954838

Parameter	Units	40196011007 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	225	200	200	427	422	101	99	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 336529 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40196011008, 40196011009, 40196011010, 40196011011, 40196011012, 40196011013, 40196011014, 40196011015, 40196011016, 40196011017, 40196011018, 40196011019, 40196011020, 40196011021

METHOD BLANK: 1954839 Matrix: Water
Associated Lab Samples: 40196011008, 40196011009, 40196011010, 40196011011, 40196011012, 40196011013, 40196011014, 40196011015, 40196011016, 40196011017, 40196011018, 40196011019, 40196011020, 40196011021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	10/07/19 13:26	

LABORATORY CONTROL SAMPLE: 1954840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	98.1	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1954841 1954842

Parameter	Units	40196011011 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	239	200	200	426	408	94	85	90-110	5	20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1954843 1954844

Parameter	Units	40196071004 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	579	500	500	1050	1030	94	91	90-110	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 336530 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 40196011019, 40196011020

METHOD BLANK: 1954845 Matrix: Water
Associated Lab Samples: 40196011019, 40196011020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.25	0.50	10/07/19 14:06	

LABORATORY CONTROL SAMPLE: 1954846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1954847 1954848

Parameter	Units	40196200001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	<0.25	10	10	10.0	10.0	100	100	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1954849 1954850

Parameter	Units	40196518001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	<0.25	10	10	10.2	10.2	102	102	90-110	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

QC Batch: 336229 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 40196011019, 40196011020

METHOD BLANK: 1952166 Matrix: Water
Associated Lab Samples: 40196011019, 40196011020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.22	0.73	10/03/19 16:59	

LABORATORY CONTROL SAMPLE: 1952167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	4.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1952168 1952169

Parameter	Units	40195939001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	8.1	20	20	26.6	26.4	93	92	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1952170 1952171

Parameter	Units	40196200001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	0.36J	5	5	5.2	5.0	96	93	90-110	3	20	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALIFIERS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

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.

WORKORDER QUALIFIERS

WO: 40196011

[1] Revised Report: The incorrect chain-of-custody was attached to the original.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40196011001	MW-20C	EPA 6010	335944		
40196011002	MW-20B	EPA 6010	335944		
40196011003	MW-4A	EPA 6010	335944		
40196011004	MW-5A	EPA 6010	335944		
40196011005	MW-25B	EPA 6010	335944		
40196011006	MW-20A	EPA 6010	335944		
40196011007	MW-16A	EPA 6010	335944		
40196011008	MW-16A DUP	EPA 6010	335944		
40196011009	MW-16B	EPA 6010	335944		
40196011010	FIELD BLANK	EPA 6010	335944		
40196011011	MW-16C	EPA 6010	335944		
40196011012	MW-18A	EPA 6010	335944		
40196011013	MW-18B	EPA 6010	335944		
40196011014	MW-18C	EPA 6010	335944		
40196011015	MW-26B	EPA 6010	335944		
40196011016	MW-26C	EPA 6010	335948		
40196011017	MW-28A	EPA 6010	335948		
40196011018	MW-27B	EPA 6010	335948		
40196011019	MW-21A	EPA 6010	335948		
40196011020	MW-2A	EPA 6010	335948		
40196011021	MW-2B	EPA 6010	335948		
40196011001	MW-20C	EPA 8260	335603		
40196011002	MW-20B	EPA 8260	335603		
40196011003	MW-4A	EPA 8260	335603		
40196011004	MW-5A	EPA 8260	335603		
40196011005	MW-25B	EPA 8260	335603		
40196011006	MW-20A	EPA 8260	335603		
40196011007	MW-16A	EPA 8260	335603		
40196011008	MW-16A DUP	EPA 8260	335603		
40196011009	MW-16B	EPA 8260	335603		
40196011010	FIELD BLANK	EPA 8260	335603		
40196011011	MW-16C	EPA 8260	335603		
40196011012	MW-18A	EPA 8260	335603		
40196011013	MW-18B	EPA 8260	335603		
40196011014	MW-18C	EPA 8260	335603		
40196011015	MW-26B	EPA 8260	335603		
40196011016	MW-26C	EPA 8260	335603		
40196011017	MW-28A	EPA 8260	335603		
40196011018	MW-27B	EPA 8260	335603		
40196011019	MW-21A	EPA 8260	335603		
40196011020	MW-2A	EPA 8260	335603		
40196011021	MW-2B	EPA 8260	335606		
40196011022	TRIP BLANK	EPA 8260	335812		
40196011001	MW-20C				
40196011002	MW-20B				
40196011003	MW-4A				

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40196011004	MW-5A				
40196011005	MW-25B				
40196011006	MW-20A				
40196011007	MW-16A				
40196011008	MW-16A DUP				
40196011009	MW-16B				
40196011011	MW-16C				
40196011012	MW-18A				
40196011013	MW-18B				
40196011014	MW-18C				
40196011015	MW-26B				
40196011016	MW-26C				
40196011017	MW-28A				
40196011018	MW-27B				
40196011019	MW-21A				
40196011020	MW-2A				
40196011021	MW-2B				
40196011023	MW-19B				
40196011024	MW-19C				
40196011025	MW-28B				
40196011001	MW-20C	EPA 300.0	335874		
40196011002	MW-20B	EPA 300.0	335874		
40196011003	MW-4A	EPA 300.0	335874		
40196011004	MW-5A	EPA 300.0	335874		
40196011005	MW-25B	EPA 300.0	335874		
40196011006	MW-20A	EPA 300.0	335874		
40196011007	MW-16A	EPA 300.0	335874		
40196011008	MW-16A DUP	EPA 300.0	335874		
40196011009	MW-16B	EPA 300.0	335874		
40196011010	FIELD BLANK	EPA 300.0	335874		
40196011011	MW-16C	EPA 300.0	335874		
40196011012	MW-18A	EPA 300.0	335874		
40196011013	MW-18B	EPA 300.0	336128		
40196011014	MW-18C	EPA 300.0	336128		
40196011015	MW-26B	EPA 300.0	336128		
40196011016	MW-26C	EPA 300.0	336128		
40196011017	MW-28A	EPA 300.0	336128		
40196011018	MW-27B	EPA 300.0	336128		
40196011019	MW-21A	EPA 300.0	336128		
40196011020	MW-2A	EPA 300.0	336128		
40196011021	MW-2B	EPA 300.0	336128		
40196011001	MW-20C	EPA 310.2	336499		
40196011002	MW-20B	EPA 310.2	336499		
40196011003	MW-4A	EPA 310.2	336499		
40196011004	MW-5A	EPA 310.2	336499		
40196011005	MW-25B	EPA 310.2	336499		
40196011006	MW-20A	EPA 310.2	336499		

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796 RHINELANDER LF
Pace Project No.: 40196011

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40196011007	**MW-16A**	EPA 310.2	336528		
40196011008	**MW-16A DUP**	EPA 310.2	336529		
40196011009	**MW-16B**	EPA 310.2	336529		
40196011010	**FIELD BLANK**	EPA 310.2	336529		
40196011011	**MW-16C**	EPA 310.2	336529		
40196011012	**MW-18A**	EPA 310.2	336529		
40196011013	**MW-18B**	EPA 310.2	336529		
40196011014	**MW-18C**	EPA 310.2	336529		
40196011015	**MW-26B**	EPA 310.2	336529		
40196011016	**MW-26C**	EPA 310.2	336529		
40196011017	**MW-28A**	EPA 310.2	336529		
40196011018	**MW-27B**	EPA 310.2	336529		
40196011019	**MW-21A**	EPA 310.2	336529		
40196011020	**MW-2A**	EPA 310.2	336529		
40196011021	**MW-2B**	EPA 310.2	336529		
40196011019	**MW-21A**	EPA 350.1	336530		
40196011020	**MW-2A**	EPA 350.1	336530		
40196011019	**MW-21A**	EPA 351.2	336229	EPA 351.2	336300
40196011020	**MW-2A**	EPA 351.2	336229	EPA 351.2	336300

(Please Print Clearly)	
Company Name:	GHD
Branch/Location:	St. Paul
Project Contact:	Grant Anderson
Phone:	651-639-0913
Project Number:	11115796
Project Name:	Rhinelander LF
Project State:	WI
Sampled By (Print):	Ryan Aamot
Sampled By (Sign):	
PO #:	—
Regulatory Program:	

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of 2

U0196011

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	See SSOW
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: VOCs + tetrahydrofuran	Alk, Chloride	Hardness, Fe, Mn	Boron	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	FILTERED? (YES/NO)				Y/N: N	N	Y	Y			
	PRESERVATION (CODE)*				Pick Letter: B	A	D	D			
001	W-190924-RA-MW20C	9/24/19	1600	GW	✓	✓	✓		* no sample time on bottles		
002	MW-20B		1602		✓	✓	✓				
003	MW4A		1416		✓	✓	✓	X			
004	MW5A		1435		✓	✓	✓	X			
005	MW25B		1528		✓	✓	✓	X			
006	W-190924-RA-MW20A		1611		✓	✓	✓	X			
007	W-190925-RA-MW16A	9/25/19	944		✓	✓	✓				
008	MW16A DUP		944		✓	✓	✓				
009	MW16B FB		944		✓	✓	✓				
010	MW16B(FB)		944		✓	✓	✓				
011	MW16C		1007		✓	✓	✓		MS/MSD		
012	MW-18A		1026		✓	✓	✓				
013	W-190925-RA-MW18B		1023		✓	✓	✓				

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	9/25/19 1530		
Fed Ex	9/26/19 0940		9/26/19 0940

PACE Project No.: U0196011
Receipt Temp = 2.1 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

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MN: 612-607-1700 WI: 920-469-2436

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CHAIN OF CUSTODY

40196011

(Please Print Clearly)	
Company Name:	GHD
Branch/Location:	St. Paul
Project Contact:	Grant Anderson
Phone:	651-639-0913
Project Number:	11115796
Project Name:	Rhinelander LF
Project State:	WI
Sampled By (Print):	Ryan Aamot
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	See SSOW
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	VOCs + tetrahydrofuran	Alk. + Chloride	Hardness, Fe, Mn	Boron	Ammonia, TKN	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					N	B								
					N	A								
					Y	D								
					Y	D								
					N	C								
014	W-190925-RA-MW18C	9/25/19	1138	GW			✓	✓	✓	X		*No time		
015	MW26B		1109				✓	✓	✓			on bottles		
016	MW26C		1110				✓	✓	✓					
017	MW-28A		1232				✓	✓	✓	X				
018	MW27B		1236				✓	✓	✓					
019	MW-21A		1344				✓	✓	✓	X	X	effervescent		
020	MW2A		1406				✓	✓	✓	X	X	effervescent		
021	W-190925-RA-MW2B		1430				✓	✓	✓					
022	Trip Blank						X							

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	9/25/19 1530		
FedEx	9/26/19 0940		9/26/19 0948

PACE Project No.: 40196011
Receipt Temp = 2.0 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: GHD Project # 40196011

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☐N/A Initial when completed: AS Date/ Time:

Lab Lot# of pH paper: 10US0891 Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass: AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	Plastic: BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	Vials: DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	Jars: JGFU	WGFU	WPFU	General: SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001											1		1					3													✓		2.5 / 5 / 10
002											1		1					3													✓		2.5 / 5 / 10
003											1		1					3													✓		2.5 / 5 / 10
004											1		1					3													✓		2.5 / 5 / 10
005											1		1					3													✓		2.5 / 5 / 10
006											1		1					3									2				✓		2.5 / 5 / 10
007											1		1					3													✓		2.5 / 5 / 10
008											1		1					3													✓		2.5 / 5 / 10
009											1		1					3													✓		2.5 / 5 / 10
010											1		1					3													✓		2.5 / 5 / 10
011											3		3					9													✓		2.5 / 5 / 10
012											1		1					3													✓		2.5 / 5 / 10
013											1		1					3													✓		2.5 / 5 / 10
014											1		1					3													✓		2.5 / 5 / 10
015											1		1					3													✓		2.5 / 5 / 10
016											1		1					3													✓		2.5 / 5 / 10
017											1		1					3													✓		2.5 / 5 / 10
018											1		1					3													✓		2.5 / 5 / 10
019											1		1	1				3										✓			✓		2.5 / 5 / 10
020											1		1	1				3									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**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical Services, LLC
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Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: GHD Project #: 40196011

Pace Lab #	Glass: AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	Plastic: BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	Vials: DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	Jars: JGFU	WGFU	WPFU	General: SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
021											1		1					3													1		2.5 / 5 / 10
022																		2															2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																9/26/19 BJ																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 10
																																	2.5 / 5 / 11
																																	2.5 / 5 / 12
																																	2.5 / 5 / 13
																																	2.5 / 5 / 14
																																	2.5 / 5 / 15
																																	2.5 / 5 / 16
																																	2.5 / 5 / 17
																																	2.5 / 5 / 18
																																	2.5 / 5 / 19
																																	2.5 / 5 / 20

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: **WO#: 40196011**

Client Name: GHD

Courier: ☐ CS Logistics ☑ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other: _____

Tracking #: 8142 2668 2140

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 - NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: R01 /Corr: —

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Person examining contents: Date: 9/26/19 Initials: PG

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: W	☐Yes ☑No ☐N/A	12. No times. 9/26/19 PG
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 433		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AL for DM **Date:** 9/26/19

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

May 16, 2019

Grant Anderson
GHD Services; St. Paul
1801 Old Highway 8 Northwest
Suite 114
Saint Paul, MN 55112

RE: Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Dear Grant Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Green Bay Certification IDs

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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186800001	**MW-16C**	Water	04/29/19 14:20	05/01/19 10:05
40186800002	**MW-16A**	Water	04/29/19 14:40	05/01/19 10:05
40186800003	**MW-16B**	Water	04/29/19 15:03	05/01/19 10:05
40186800004	**MW-16B DUP**	Water	04/29/19 15:03	05/01/19 10:05
40186800005	**MW-20C**	Water	04/30/19 08:08	05/01/19 10:05
40186800006	**MW-20B**	Water	04/30/19 08:20	05/01/19 10:05
40186800007	**MW-20A**	Water	04/30/19 08:48	05/01/19 10:05
40186800008	**MW-20A DUP**	Water	04/30/19 09:00	05/01/19 10:05
40186800009	**MW-2A**	Water	04/30/19 09:41	05/01/19 10:05
40186800010	**MW-2B**	Water	04/30/19 09:59	05/01/19 10:05
40186800011	**TRIP BLANK**	Water	04/30/19 00:00	05/01/19 10:05

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Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186800001	**MW-16C**	EPA 6010	TXW	3
		EPA 8260	LAP	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40186800002	**MW-16A**	EPA 6010	TXW	3
		EPA 8260	LAP	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40186800003	**MW-16B**	EPA 6010	TXW	3
		EPA 8260	LAP	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40186800004	**MW-16B DUP**	EPA 6010	TXW	3
		EPA 8260	LAP	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40186800005	**MW-20C**	EPA 6010	TXW	3
		EPA 8260	LAP	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40186800006	**MW-20B**	EPA 6010	TXW	3
		EPA 8260	LAP	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40186800007	**MW-20A**	EPA 6010	TXW	4
		EPA 8260	LAP	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40186800008	**MW-20A DUP**	EPA 6010	TXW	3
		EPA 8260	LAP	65

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Lab ID	Sample ID	Method	Analysts	Analytes Reported
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40186800009	**MW-2A**	EPA 6010	TXW	4
		EPA 8260	LAP	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
40186800010	**MW-2B**	EPA 6010	TXW	3
		EPA 8260	LAP	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40186800011	**TRIP BLANK**	EPA 8260	LAP	65

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-16C **Lab ID: 40186800001** Collected: 04/29/19 14:20 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**27200**	ug/L	118	35.4	1		05/03/19 16:57	7439-89-6	
Manganese, Dissolved	**2180**	ug/L	5.0	1.1	1		05/03/19 16:57	7439-96-5	
Total Hardness by 2340B, Dissolved	**232**	mg/L	2.0	0.15	1		05/03/19 16:57		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.2**	ug/L	1.0	0.25	1		05/02/19 23:14	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 23:14	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 23:14	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 23:14	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 23:14	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 23:14	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 23:14	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 23:14	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 23:14	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 23:14	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 23:14	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 23:14	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 23:14	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 23:14	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 23:14	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 23:14	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 23:14	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 23:14	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 23:14	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 23:14	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 23:14	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 23:14	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 23:14	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 23:14	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 23:14	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 23:14	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 23:14	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 23:14	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 23:14	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 23:14	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 23:14	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 23:14	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 23:14	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 23:14	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 23:14	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 23:14	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 23:14	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 23:14	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 23:14	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 23:14	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-16C **Lab ID: 40186800001** Collected: 04/29/19 14:20 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 23:14	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 23:14	1634-04-4	
Naphthalene	**1.8J**	ug/L	5.0	1.2	1		05/02/19 23:14	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 23:14	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 23:14	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 23:14	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 23:14	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 23:14	127-18-4	
Tetrahydrofuran	**9.0J**	ug/L	20.0	2.3	1		05/02/19 23:14	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		05/02/19 23:14	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 23:14	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 23:14	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 23:14	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 23:14	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 23:14	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 23:14	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 23:14	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 23:14	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 23:14	108-67-8	
Vinyl chloride	**0.26J**	ug/L	1.0	0.17	1		05/02/19 23:14	75-01-4	
m&p-Xylene	**0.89J**	ug/L	2.0	0.47	1		05/02/19 23:14	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 23:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 23:14	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		05/02/19 23:14	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 23:14	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.09**	Std. Units			1		04/29/19 14:20		
Field Specific Conductance	**776**	umhos/cm			1		04/29/19 14:20		
Oxygen, Dissolved	**0**	mg/L			1		04/29/19 14:20	7782-44-7	
REDOX	**-129**	mV			1		04/29/19 14:20		
Turbidity	**5.5**	NTU			1		04/29/19 14:20		
Temperature, Water (C)	**7.32**	deg C			1		04/29/19 14:20		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**43.9**	mg/L	10.0	2.5	5		05/09/19 18:16	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**232**	mg/L	23.5	7.0	1		05/03/19 12:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-16A **Lab ID: 40186800002** Collected: 04/29/19 14:40 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**3690**	ug/L	118	35.4	1		05/03/19 16:50	7439-89-6	
Manganese, Dissolved	**4100**	ug/L	5.0	1.1	1		05/03/19 16:50	7439-96-5	
Total Hardness by 2340B, Dissolved	**201**	mg/L	2.0	0.15	1		05/03/19 16:50		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.76J**	ug/L	1.0	0.25	1		05/02/19 20:39	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 20:39	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 20:39	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 20:39	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 20:39	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 20:39	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 20:39	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 20:39	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 20:39	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 20:39	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 20:39	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 20:39	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 20:39	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 20:39	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 20:39	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 20:39	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 20:39	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 20:39	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 20:39	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 20:39	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 20:39	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 20:39	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 20:39	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 20:39	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 20:39	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 20:39	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 20:39	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 20:39	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 20:39	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 20:39	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 20:39	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 20:39	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 20:39	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 20:39	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 20:39	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 20:39	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 20:39	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 20:39	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 20:39	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 20:39	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-16A **Lab ID: 40186800002** Collected: 04/29/19 14:40 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 20:39	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 20:39	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 20:39	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 20:39	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 20:39	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 20:39	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 20:39	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 20:39	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		05/02/19 20:39	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		05/02/19 20:39	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 20:39	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 20:39	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 20:39	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 20:39	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 20:39	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 20:39	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 20:39	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 20:39	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 20:39	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 20:39	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		05/02/19 20:39	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 20:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		05/02/19 20:39	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		05/02/19 20:39	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 20:39	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.87**	Std. Units			1		04/29/19 14:40		
Field Specific Conductance	**500**	umhos/cm			1		04/29/19 14:40		
Oxygen, Dissolved	**0**	mg/L			1		04/29/19 14:40	7782-44-7	
REDOX	**-91**	mV			1		04/29/19 14:40		
Turbidity	**8.5**	NTU			1		04/29/19 14:40		
Temperature, Water (C)	**6.45**	deg C			1		04/29/19 14:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**25.8**	mg/L	2.0	0.50	1		05/09/19 18:30	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**211**	mg/L	47.0	14.1	2		05/03/19 12:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-16B **Lab ID: 40186800003** Collected: 04/29/19 15:03 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**34400**	ug/L	118	35.4	1		05/03/19 17:00	7439-89-6	
Manganese, Dissolved	**3690**	ug/L	5.0	1.1	1		05/03/19 17:00	7439-96-5	
Total Hardness by 2340B, Dissolved	**221**	mg/L	2.0	0.15	1		05/03/19 17:00		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.0J**	ug/L	1.0	0.25	1		05/02/19 21:01	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 21:01	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 21:01	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 21:01	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 21:01	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 21:01	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 21:01	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 21:01	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 21:01	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 21:01	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 21:01	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 21:01	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 21:01	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 21:01	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 21:01	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 21:01	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 21:01	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 21:01	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 21:01	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 21:01	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 21:01	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 21:01	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 21:01	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 21:01	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 21:01	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 21:01	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 21:01	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 21:01	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 21:01	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 21:01	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 21:01	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 21:01	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 21:01	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 21:01	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 21:01	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 21:01	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 21:01	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 21:01	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 21:01	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 21:01	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-16B **Lab ID: 40186800003** Collected: 04/29/19 15:03 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 21:01	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 21:01	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 21:01	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 21:01	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 21:01	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 21:01	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 21:01	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 21:01	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		05/02/19 21:01	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		05/02/19 21:01	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 21:01	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 21:01	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 21:01	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 21:01	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 21:01	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 21:01	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 21:01	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 21:01	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 21:01	108-67-8	
Vinyl chloride	**0.24J**	ug/L	1.0	0.17	1		05/02/19 21:01	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		05/02/19 21:01	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 21:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 21:01	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		05/02/19 21:01	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 21:01	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.64**	Std. Units			1		04/29/19 15:03		
Field Specific Conductance	**734**	umhos/cm			1		04/29/19 15:03		
Oxygen, Dissolved	**0**	mg/L			1		04/29/19 15:03	7782-44-7	
REDOX	**-152**	mV			1		04/29/19 15:03		
Turbidity	**8**	NTU			1		04/29/19 15:03		
Temperature, Water (C)	**7.43**	deg C			1		04/29/19 15:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.4**	mg/L	10.0	2.5	5		05/09/19 19:56	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**224**	mg/L	23.5	7.0	1		05/03/19 13:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-16B DUP **Lab ID: 40186800004** Collected: 04/29/19 15:03 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**34100**	ug/L	118	35.4	1		05/03/19 17:02	7439-89-6	
Manganese, Dissolved	**3700**	ug/L	5.0	1.1	1		05/03/19 17:02	7439-96-5	
Total Hardness by 2340B, Dissolved	**220**	mg/L	2.0	0.15	1		05/03/19 17:02		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.0**	ug/L	1.0	0.25	1		05/02/19 21:45	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 21:45	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 21:45	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 21:45	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 21:45	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 21:45	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 21:45	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 21:45	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 21:45	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 21:45	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 21:45	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 21:45	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 21:45	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 21:45	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 21:45	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 21:45	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 21:45	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 21:45	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 21:45	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 21:45	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 21:45	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 21:45	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 21:45	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 21:45	75-71-8	
1,1-Dichloroethane	**0.28J**	ug/L	1.0	0.27	1		05/02/19 21:45	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 21:45	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 21:45	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 21:45	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 21:45	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 21:45	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 21:45	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 21:45	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 21:45	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 21:45	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 21:45	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 21:45	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 21:45	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 21:45	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 21:45	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 21:45	99-87-6	

REPORT OF LABORATORY ANALYSIS

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

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-16B DUP **Lab ID: 40186800004** Collected: 04/29/19 15:03 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 21:45	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 21:45	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 21:45	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 21:45	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 21:45	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 21:45	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 21:45	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 21:45	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		05/02/19 21:45	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		05/02/19 21:45	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 21:45	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 21:45	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 21:45	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 21:45	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 21:45	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 21:45	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 21:45	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 21:45	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 21:45	108-67-8	
Vinyl chloride	**0.22J**	ug/L	1.0	0.17	1		05/02/19 21:45	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		05/02/19 21:45	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 21:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		05/02/19 21:45	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		05/02/19 21:45	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 21:45	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.64**	Std. Units			1		04/29/19 15:03		
Field Specific Conductance	**734**	umhos/cm			1		04/29/19 15:03		
Oxygen, Dissolved	**0**	mg/L			1		04/29/19 15:03	7782-44-7	
REDOX	**-152**	mV			1		04/29/19 15:03		
Turbidity	**8**	NTU			1		04/29/19 15:03		
Temperature, Water (C)	**7.43**	deg C			1		04/29/19 15:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.7**	mg/L	10.0	2.5	5		05/09/19 20:11	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**232**	mg/L	23.5	7.0	1		05/03/19 13:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-20C **Lab ID: 40186800005** Collected: 04/30/19 08:08 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**22200**	ug/L	118	35.4	1		05/03/19 17:05	7439-89-6	
Manganese, Dissolved	**1460**	ug/L	5.0	1.1	1		05/03/19 17:05	7439-96-5	
Total Hardness by 2340B, Dissolved	**188**	mg/L	2.0	0.15	1		05/03/19 17:05		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.94J**	ug/L	1.0	0.25	1		05/02/19 22:07	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 22:07	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 22:07	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 22:07	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 22:07	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 22:07	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 22:07	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 22:07	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 22:07	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 22:07	56-23-5	
Chlorobenzene	**0.72J**	ug/L	2.4	0.71	1		05/02/19 22:07	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 22:07	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 22:07	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 22:07	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 22:07	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 22:07	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 22:07	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 22:07	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 22:07	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 22:07	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 22:07	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 22:07	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 22:07	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 22:07	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 22:07	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 22:07	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 22:07	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 22:07	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 22:07	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 22:07	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 22:07	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 22:07	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 22:07	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 22:07	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 22:07	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 22:07	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 22:07	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 22:07	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 22:07	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 22:07	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-20C **Lab ID: 40186800005** Collected: 04/30/19 08:08 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 22:07	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 22:07	1634-04-4	
Naphthalene	**5.1**	ug/L	5.0	1.2	1		05/02/19 22:07	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 22:07	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 22:07	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 22:07	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 22:07	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 22:07	127-18-4	
Tetrahydrofuran	**12.3J**	ug/L	20.0	2.3	1		05/02/19 22:07	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		05/02/19 22:07	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 22:07	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 22:07	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 22:07	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 22:07	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 22:07	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 22:07	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 22:07	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 22:07	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 22:07	108-67-8	
Vinyl chloride	**0.80J**	ug/L	1.0	0.17	1		05/02/19 22:07	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		05/02/19 22:07	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 22:07	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 22:07	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		05/02/19 22:07	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 22:07	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.02**	Std. Units			1		04/30/19 08:08		
Field Specific Conductance	**661**	umhos/cm			1		04/30/19 08:08		
Oxygen, Dissolved	**0**	mg/L			1		04/30/19 08:08	7782-44-7	
REDOX	**-89**	mV			1		04/30/19 08:08		
Turbidity	**19.7**	NTU			1		04/30/19 08:08		
Temperature, Water (C)	**6.76**	deg C			1		04/30/19 08:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**49.1**	mg/L	10.0	2.5	5		05/09/19 20:25	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**176**	mg/L	23.5	7.0	1		05/03/19 13:01		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-20B **Lab ID: 40186800006** Collected: 04/30/19 08:20 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**16800**	ug/L	118	35.4	1		05/03/19 17:07	7439-89-6	
Manganese, Dissolved	**1040**	ug/L	5.0	1.1	1		05/03/19 17:07	7439-96-5	
Total Hardness by 2340B, Dissolved	**158**	mg/L	2.0	0.15	1		05/03/19 17:07		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.70J**	ug/L	1.0	0.25	1		05/02/19 23:36	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 23:36	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 23:36	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 23:36	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 23:36	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 23:36	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 23:36	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 23:36	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 23:36	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 23:36	56-23-5	
Chlorobenzene	**0.90J**	ug/L	2.4	0.71	1		05/02/19 23:36	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 23:36	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 23:36	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 23:36	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 23:36	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 23:36	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 23:36	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 23:36	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 23:36	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 23:36	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 23:36	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 23:36	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 23:36	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 23:36	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 23:36	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 23:36	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 23:36	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 23:36	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 23:36	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 23:36	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 23:36	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 23:36	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 23:36	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 23:36	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 23:36	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 23:36	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 23:36	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 23:36	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 23:36	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 23:36	99-87-6	

REPORT OF LABORATORY ANALYSIS

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

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-20B **Lab ID: 40186800006** Collected: 04/30/19 08:20 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 23:36	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 23:36	1634-04-4	
Naphthalene	**6.7**	ug/L	5.0	1.2	1		05/02/19 23:36	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 23:36	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 23:36	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 23:36	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 23:36	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 23:36	127-18-4	
Tetrahydrofuran	**8.0J**	ug/L	20.0	2.3	1		05/02/19 23:36	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		05/02/19 23:36	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 23:36	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 23:36	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 23:36	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 23:36	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 23:36	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 23:36	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 23:36	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 23:36	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 23:36	108-67-8	
Vinyl chloride	**0.25J**	ug/L	1.0	0.17	1		05/02/19 23:36	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		05/02/19 23:36	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 23:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		05/02/19 23:36	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		05/02/19 23:36	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 23:36	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.1**	Std. Units			1		04/30/19 08:20		
Field Specific Conductance	**596**	umhos/cm			1		04/30/19 08:20		
Oxygen, Dissolved	**0**	mg/L			1		04/30/19 08:20	7782-44-7	
REDOX	**-100**	mV			1		04/30/19 08:20		
Turbidity	**10.7**	NTU			1		04/30/19 08:20		
Temperature, Water (C)	**4.91**	deg C			1		04/30/19 08:20		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**49.5**	mg/L	10.0	2.5	5		05/09/19 20:39	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**142**	mg/L	23.5	7.0	1		05/03/19 13:01		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-20A **Lab ID: 40186800007** Collected: 04/30/19 08:48 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**505**	ug/L	40.0	9.7	1		05/03/19 17:10	7440-42-8	
Iron, Dissolved	**75300**	ug/L	118	35.4	1		05/03/19 17:10	7439-89-6	
Manganese, Dissolved	**848**	ug/L	5.0	1.1	1		05/03/19 17:10	7439-96-5	
Total Hardness by 2340B, Dissolved	**175**	mg/L	2.0	0.15	1		05/03/19 17:10		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.2**	ug/L	1.0	0.25	1		05/02/19 23:58	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 23:58	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 23:58	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 23:58	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 23:58	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 23:58	74-83-9	
n-Butylbenzene	**1.0J**	ug/L	2.4	0.71	1		05/02/19 23:58	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 23:58	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 23:58	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 23:58	56-23-5	
Chlorobenzene	**4.3**	ug/L	2.4	0.71	1		05/02/19 23:58	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 23:58	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 23:58	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 23:58	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 23:58	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 23:58	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 23:58	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 23:58	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 23:58	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 23:58	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 23:58	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 23:58	541-73-1	
1,4-Dichlorobenzene	**1.6J**	ug/L	3.1	0.94	1		05/02/19 23:58	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 23:58	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 23:58	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 23:58	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 23:58	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 23:58	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 23:58	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 23:58	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 23:58	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 23:58	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 23:58	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 23:58	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 23:58	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 23:58	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 23:58	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 23:58	87-68-3	
Isopropylbenzene (Cumene)	**3.2J**	ug/L	5.0	0.39	1		05/02/19 23:58	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-20A **Lab ID: 40186800007** Collected: 04/30/19 08:48 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 23:58	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 23:58	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 23:58	1634-04-4	
Naphthalene	**10.7**	ug/L	5.0	1.2	1		05/02/19 23:58	91-20-3	
n-Propylbenzene	**2.2J**	ug/L	5.0	0.81	1		05/02/19 23:58	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 23:58	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 23:58	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 23:58	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 23:58	127-18-4	
Tetrahydrofuran	**6.8J**	ug/L	20.0	2.3	1		05/02/19 23:58	109-99-9	
Toluene	**0.18J**	ug/L	5.0	0.17	1		05/02/19 23:58	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 23:58	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 23:58	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 23:58	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 23:58	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 23:58	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 23:58	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 23:58	96-18-4	
1,2,4-Trimethylbenzene	**16.7**	ug/L	2.8	0.84	1		05/02/19 23:58	95-63-6	
1,3,5-Trimethylbenzene	**3.1**	ug/L	2.9	0.87	1		05/02/19 23:58	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 23:58	75-01-4	
m&p-Xylene	**39.4**	ug/L	2.0	0.47	1		05/02/19 23:58	179601-23-1	
o-Xylene	**1.0**	ug/L	1.0	0.26	1		05/02/19 23:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		05/02/19 23:58	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		05/02/19 23:58	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		05/02/19 23:58	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.48**	Std. Units			1		04/30/19 08:48		
Field Specific Conductance	**905**	umhos/cm			1		04/30/19 08:48		
Oxygen, Dissolved	**0**	mg/L			1		04/30/19 08:48	7782-44-7	
REDOX	**-59**	mV			1		04/30/19 08:48		
Turbidity	**18.6**	NTU			1		04/30/19 08:48		
Temperature, Water (C)	**3.98**	deg C			1		04/30/19 08:48		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**10.8**	mg/L	10.0	2.5	5		05/09/19 20:54	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**255**	mg/L	23.5	7.0	1		05/03/19 13:02		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-20A DUP **Lab ID: 40186800008** Collected: 04/30/19 09:00 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**<35.4**	ug/L	118	35.4	1		05/03/19 17:12	7439-89-6	
Manganese, Dissolved	**<1.1**	ug/L	5.0	1.1	1		05/03/19 17:12	7439-96-5	
Total Hardness by 2340B, Dissolved	**0.36J**	mg/L	2.0	0.15	1		05/03/19 17:12		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		05/02/19 22:29	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 22:29	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 22:29	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 22:29	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 22:29	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 22:29	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 22:29	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 22:29	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 22:29	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 22:29	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 22:29	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 22:29	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 22:29	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 22:29	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 22:29	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 22:29	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 22:29	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 22:29	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 22:29	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 22:29	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 22:29	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 22:29	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 22:29	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 22:29	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 22:29	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 22:29	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 22:29	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 22:29	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 22:29	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 22:29	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 22:29	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 22:29	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 22:29	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 22:29	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 22:29	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 22:29	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 22:29	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 22:29	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 22:29	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 22:29	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-20A DUP **Lab ID: 40186800008** Collected: 04/30/19 09:00 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 22:29	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 22:29	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 22:29	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 22:29	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 22:29	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 22:29	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 22:29	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 22:29	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		05/02/19 22:29	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		05/02/19 22:29	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 22:29	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 22:29	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 22:29	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 22:29	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 22:29	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 22:29	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 22:29	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 22:29	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 22:29	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 22:29	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		05/02/19 22:29	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 22:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 22:29	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		05/02/19 22:29	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 22:29	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.48**	Std. Units			1		04/30/19 09:00		
Field Specific Conductance	**905**	umhos/cm			1		04/30/19 09:00		
Oxygen, Dissolved	**0**	mg/L			1		04/30/19 09:00	7782-44-7	
REDOX	**-59**	mV			1		04/30/19 09:00		
Turbidity	**18.6**	NTU			1		04/30/19 09:00		
Temperature, Water (C)	**3.98**	deg C			1		04/30/19 09:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**<0.50**	mg/L	2.0	0.50	1		05/09/19 21:08	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**<7.0**	mg/L	23.5	7.0	1		05/13/19 10:49		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-2A **Lab ID: 40186800009** Collected: 04/30/19 09:41 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**677**	ug/L	40.0	9.7	1		05/03/19 17:20	7440-42-8	
Iron, Dissolved	**58300**	ug/L	118	35.4	1		05/03/19 17:20	7439-89-6	
Manganese, Dissolved	**760**	ug/L	5.0	1.1	1		05/03/19 17:20	7439-96-5	
Total Hardness by 2340B, Dissolved	**499**	mg/L	2.0	0.15	1		05/03/19 17:20		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**13.8**	ug/L	1.0	0.25	1		05/02/19 22:52	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 22:52	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 22:52	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 22:52	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 22:52	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 22:52	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 22:52	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 22:52	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 22:52	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 22:52	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 22:52	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 22:52	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 22:52	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 22:52	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 22:52	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 22:52	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 22:52	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 22:52	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 22:52	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 22:52	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 22:52	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 22:52	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 22:52	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 22:52	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 22:52	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 22:52	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 22:52	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 22:52	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 22:52	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 22:52	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 22:52	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 22:52	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 22:52	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 22:52	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 22:52	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 22:52	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 22:52	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 22:52	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 22:52	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-2A **Lab ID: 40186800009** Collected: 04/30/19 09:41 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 22:52	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 22:52	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 22:52	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 22:52	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 22:52	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 22:52	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 22:52	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 22:52	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 22:52	127-18-4	
Tetrahydrofuran	**85.9**	ug/L	20.0	2.3	1		05/02/19 22:52	109-99-9	
Toluene	**0.19J**	ug/L	5.0	0.17	1		05/02/19 22:52	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 22:52	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 22:52	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 22:52	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 22:52	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 22:52	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 22:52	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 22:52	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 22:52	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 22:52	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 22:52	75-01-4	
m&p-Xylene	**1.5J**	ug/L	2.0	0.47	1		05/02/19 22:52	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 22:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		05/02/19 22:52	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		05/02/19 22:52	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 22:52	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.7**	Std. Units			1		04/30/19 09:41		
Field Specific Conductance	**1730**	umhos/cm			1		04/30/19 09:41		
Oxygen, Dissolved	**0**	mg/L			1		04/30/19 09:41	7782-44-7	
REDOX	**-63**	mV			1		04/30/19 09:41		
Turbidity	**27.3**	NTU			1		04/30/19 09:41		
Temperature, Water (C)	**4.23**	deg C			1		04/30/19 09:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**44.1**	mg/L	10.0	2.5	5		05/09/19 21:22	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**734**	mg/L	47.0	14.1	2		05/03/19 13:23		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**96.9**	mg/L	2.5	1.2	5		05/09/19 18:27	7664-41-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-2A **Lab ID: 40186800009** Collected: 04/30/19 09:41 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**96.0**	mg/L	14.6	4.4	20	05/08/19 11:10	05/08/19 16:37	7727-37-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-2B **Lab ID: 40186800010** Collected: 04/30/19 09:59 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**22200**	ug/L	118	35.4	1		05/03/19 17:22	7439-89-6	
Manganese, Dissolved	**1220**	ug/L	5.0	1.1	1		05/03/19 17:22	7439-96-5	
Total Hardness by 2340B, Dissolved	**182**	mg/L	2.0	0.15	1		05/03/19 17:22		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.86J**	ug/L	1.0	0.25	1		05/02/19 21:23	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 21:23	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 21:23	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 21:23	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 21:23	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 21:23	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 21:23	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 21:23	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 21:23	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 21:23	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 21:23	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 21:23	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 21:23	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 21:23	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 21:23	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 21:23	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 21:23	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 21:23	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 21:23	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 21:23	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 21:23	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 21:23	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 21:23	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 21:23	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 21:23	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 21:23	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 21:23	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 21:23	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 21:23	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 21:23	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 21:23	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 21:23	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 21:23	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 21:23	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 21:23	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 21:23	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 21:23	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 21:23	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 21:23	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 21:23	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: MW-2B **Lab ID: 40186800010** Collected: 04/30/19 09:59 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 21:23	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 21:23	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 21:23	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 21:23	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 21:23	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 21:23	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 21:23	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 21:23	127-18-4	
Tetrahydrofuran	**16.0J**	ug/L	20.0	2.3	1		05/02/19 21:23	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		05/02/19 21:23	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 21:23	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 21:23	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 21:23	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 21:23	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 21:23	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 21:23	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 21:23	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 21:23	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 21:23	108-67-8	
Vinyl chloride	**0.42J**	ug/L	1.0	0.17	1		05/02/19 21:23	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		05/02/19 21:23	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 21:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		05/02/19 21:23	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		05/02/19 21:23	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 21:23	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.11**	Std. Units			1		04/30/19 09:59		
Field Specific Conductance	**578**	umhos/cm			1		04/30/19 09:59		
Oxygen, Dissolved	**0**	mg/L			1		04/30/19 09:59	7782-44-7	
REDOX	**-112**	mV			1		04/30/19 09:59		
Turbidity	**15.2**	NTU			1		04/30/19 09:59		
Temperature, Water (C)	**4.7**	deg C			1		04/30/19 09:59		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**28.3**	mg/L	10.0	2.5	5		05/09/19 21:37	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**214**	mg/L	47.0	14.1	2		05/03/19 13:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: TRIP BLANK **Lab ID: 40186800011** Collected: 04/30/19 00:00 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		05/02/19 19:55	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 19:55	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		05/02/19 19:55	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		05/02/19 19:55	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		05/02/19 19:55	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		05/02/19 19:55	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 19:55	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		05/02/19 19:55	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		05/02/19 19:55	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 19:55	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 19:55	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		05/02/19 19:55	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		05/02/19 19:55	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		05/02/19 19:55	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		05/02/19 19:55	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		05/02/19 19:55	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		05/02/19 19:55	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		05/02/19 19:55	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		05/02/19 19:55	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		05/02/19 19:55	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		05/02/19 19:55	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		05/02/19 19:55	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		05/02/19 19:55	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		05/02/19 19:55	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 19:55	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 19:55	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		05/02/19 19:55	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		05/02/19 19:55	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		05/02/19 19:55	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 19:55	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		05/02/19 19:55	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		05/02/19 19:55	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		05/02/19 19:55	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		05/02/19 19:55	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		05/02/19 19:55	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		05/02/19 19:55	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		05/02/19 19:55	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 19:55	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		05/02/19 19:55	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		05/02/19 19:55	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		05/02/19 19:55	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		05/02/19 19:55	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		05/02/19 19:55	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		05/02/19 19:55	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		05/02/19 19:55	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		05/02/19 19:55	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Sample: TRIP BLANK **Lab ID: 40186800011** Collected: 04/30/19 00:00 Received: 05/01/19 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		05/02/19 19:55	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		05/02/19 19:55	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		05/02/19 19:55	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		05/02/19 19:55	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		05/02/19 19:55	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		05/02/19 19:55	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/02/19 19:55	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		05/02/19 19:55	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 19:55	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		05/02/19 19:55	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		05/02/19 19:55	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		05/02/19 19:55	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		05/02/19 19:55	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		05/02/19 19:55	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		05/02/19 19:55	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		05/02/19 19:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		05/02/19 19:55	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		05/02/19 19:55	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		05/02/19 19:55	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

QC Batch: 320374 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40186800001, 40186800002, 40186800003, 40186800004, 40186800005, 40186800006, 40186800007, 40186800008, 40186800009, 40186800010

METHOD BLANK: 1861263 Matrix: Water
Associated Lab Samples: 40186800001, 40186800002, 40186800003, 40186800004, 40186800005, 40186800006, 40186800007, 40186800008, 40186800009, 40186800010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron, Dissolved	ug/L	<9.7	40.0	05/03/19 16:40	
Iron, Dissolved	ug/L	<35.4	118	05/03/19 16:40	
Manganese, Dissolved	ug/L	<1.1	5.0	05/03/19 16:40	
Total Hardness by 2340B, Dissolved	mg/L	0.61J	2.0	05/03/19 16:40	

LABORATORY CONTROL SAMPLE: 1861264

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	500	485	97	80-120	
Iron, Dissolved	ug/L	5000	4910	98	80-120	
Manganese, Dissolved	ug/L	500	493	99	80-120	
Total Hardness by 2340B, Dissolved	mg/L		32.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861267 1861268

Parameter	Units	40186800002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	192	500	500	685	678	99	97	75-125	1	20	
Iron, Dissolved	ug/L	3690	5000	5000	8540	8550	97	97	75-125	0	20	
Manganese, Dissolved	ug/L	4100	500	500	4480	4480	77	77	75-125	0	20	
Total Hardness by 2340B, Dissolved	mg/L	201			228	227				0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

QC Batch: 320090 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40186800001, 40186800002, 40186800003, 40186800004, 40186800005, 40186800006, 40186800007, 40186800008, 40186800009, 40186800010, 40186800011

METHOD BLANK: 1859706 Matrix: Water
Associated Lab Samples: 40186800001, 40186800002, 40186800003, 40186800004, 40186800005, 40186800006, 40186800007, 40186800008, 40186800009, 40186800010, 40186800011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	05/02/19 16:37	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	05/02/19 16:37	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	05/02/19 16:37	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	05/02/19 16:37	
1,1-Dichloroethane	ug/L	<0.27	1.0	05/02/19 16:37	
1,1-Dichloroethene	ug/L	<0.24	1.0	05/02/19 16:37	
1,1-Dichloropropene	ug/L	<0.54	1.8	05/02/19 16:37	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	05/02/19 16:37	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	05/02/19 16:37	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	05/02/19 16:37	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	05/02/19 16:37	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	05/02/19 16:37	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	05/02/19 16:37	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	05/02/19 16:37	
1,2-Dichloroethane	ug/L	<0.28	1.0	05/02/19 16:37	
1,2-Dichloropropane	ug/L	<0.28	1.0	05/02/19 16:37	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	05/02/19 16:37	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	05/02/19 16:37	
1,3-Dichloropropane	ug/L	<0.83	2.8	05/02/19 16:37	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	05/02/19 16:37	
2,2-Dichloropropane	ug/L	<2.3	7.6	05/02/19 16:37	
2-Chlorotoluene	ug/L	<0.93	5.0	05/02/19 16:37	
4-Chlorotoluene	ug/L	<0.76	2.5	05/02/19 16:37	
Benzene	ug/L	<0.25	1.0	05/02/19 16:37	
Bromobenzene	ug/L	<0.24	1.0	05/02/19 16:37	
Bromochloromethane	ug/L	<0.36	5.0	05/02/19 16:37	
Bromodichloromethane	ug/L	<0.36	1.2	05/02/19 16:37	
Bromoform	ug/L	<4.0	13.2	05/02/19 16:37	
Bromomethane	ug/L	<0.97	5.0	05/02/19 16:37	
Carbon tetrachloride	ug/L	<0.17	1.0	05/02/19 16:37	
Chlorobenzene	ug/L	<0.71	2.4	05/02/19 16:37	
Chloroethane	ug/L	<1.3	5.0	05/02/19 16:37	
Chloroform	ug/L	<1.3	5.0	05/02/19 16:37	
Chloromethane	ug/L	<2.2	7.3	05/02/19 16:37	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	05/02/19 16:37	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	05/02/19 16:37	
Dibromochloromethane	ug/L	<2.6	8.7	05/02/19 16:37	
Dibromomethane	ug/L	<0.94	3.1	05/02/19 16:37	
Dichlorodifluoromethane	ug/L	<0.50	5.0	05/02/19 16:37	
Diisopropyl ether	ug/L	<1.9	6.3	05/02/19 16:37	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

METHOD BLANK: 1859706 Matrix: Water

Associated Lab Samples: 40186800001, 40186800002, 40186800003, 40186800004, 40186800005, 40186800006, 40186800007, 40186800008, 40186800009, 40186800010, 40186800011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.22	1.0	05/02/19 16:37	
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	05/02/19 16:37	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	05/02/19 16:37	
m&p-Xylene	ug/L	<0.47	2.0	05/02/19 16:37	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	05/02/19 16:37	
Methylene Chloride	ug/L	<0.58	5.0	05/02/19 16:37	
n-Butylbenzene	ug/L	<0.71	2.4	05/02/19 16:37	
n-Propylbenzene	ug/L	<0.81	5.0	05/02/19 16:37	
Naphthalene	ug/L	<1.2	5.0	05/02/19 16:37	
o-Xylene	ug/L	<0.26	1.0	05/02/19 16:37	
p-Isopropyltoluene	ug/L	<0.80	2.7	05/02/19 16:37	
sec-Butylbenzene	ug/L	<0.85	5.0	05/02/19 16:37	
Styrene	ug/L	<0.47	1.6	05/02/19 16:37	
tert-Butylbenzene	ug/L	<0.30	1.0	05/02/19 16:37	
Tetrachloroethene	ug/L	<0.33	1.1	05/02/19 16:37	
Tetrahydrofuran	ug/L	<2.3	20.0	05/02/19 16:37	
Toluene	ug/L	<0.17	5.0	05/02/19 16:37	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	05/02/19 16:37	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	05/02/19 16:37	
Trichloroethene	ug/L	<0.26	1.0	05/02/19 16:37	
Trichlorofluoromethane	ug/L	<0.21	1.0	05/02/19 16:37	
Vinyl chloride	ug/L	<0.17	1.0	05/02/19 16:37	
4-Bromofluorobenzene (S)	%	91	70-130	05/02/19 16:37	
Dibromofluoromethane (S)	%	103	70-130	05/02/19 16:37	
Toluene-d8 (S)	%	99	70-130	05/02/19 16:37	

LABORATORY CONTROL SAMPLE: 1859707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	54.3	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.5	101	70-130	
1,1,2-Trichloroethane	ug/L	50	52.5	105	70-130	
1,1-Dichloroethane	ug/L	50	51.7	103	73-150	
1,1-Dichloroethene	ug/L	50	60.0	120	73-138	
1,2,4-Trichlorobenzene	ug/L	50	48.6	97	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	50.2	100	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	52.4	105	70-130	
1,2-Dichlorobenzene	ug/L	50	52.6	105	70-130	
1,2-Dichloroethane	ug/L	50	51.3	103	75-140	
1,2-Dichloropropane	ug/L	50	51.9	104	73-135	
1,3-Dichlorobenzene	ug/L	50	53.0	106	70-130	
1,4-Dichlorobenzene	ug/L	50	52.5	105	70-130	
Benzene	ug/L	50	52.7	105	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

LABORATORY CONTROL SAMPLE: 1859707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromodichloromethane	ug/L	50	52.8	106	70-130	
Bromoform	ug/L	50	51.0	102	68-129	
Bromomethane	ug/L	50	42.9	86	18-159	
Carbon tetrachloride	ug/L	50	55.4	111	70-130	
Chlorobenzene	ug/L	50	53.8	108	70-130	
Chloroethane	ug/L	50	54.9	110	53-147	
Chloroform	ug/L	50	52.7	105	74-136	
Chloromethane	ug/L	50	29.9	60	29-115	
cis-1,2-Dichloroethene	ug/L	50	50.0	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.3	101	70-130	
Dibromochloromethane	ug/L	50	51.8	104	70-130	
Dichlorodifluoromethane	ug/L	50	32.1	64	10-130	
Ethylbenzene	ug/L	50	55.8	112	80-124	
Isopropylbenzene (Cumene)	ug/L	50	57.7	115	70-130	
m&p-Xylene	ug/L	100	113	113	70-130	
Methyl-tert-butyl ether	ug/L	50	59.9	120	54-137	
Methylene Chloride	ug/L	50	58.1	116	73-138	
o-Xylene	ug/L	50	56.3	113	70-130	
Styrene	ug/L	50	56.7	113	70-130	
Tetrachloroethene	ug/L	50	51.8	104	70-130	
Toluene	ug/L	50	54.2	108	80-126	
trans-1,2-Dichloroethene	ug/L	50	58.8	118	73-145	
trans-1,3-Dichloropropene	ug/L	50	46.6	93	70-130	
Trichloroethene	ug/L	50	54.1	108	70-130	
Trichlorofluoromethane	ug/L	50	60.3	121	76-147	
Vinyl chloride	ug/L	50	46.7	93	51-120	
4-Bromofluorobenzene (S)	%			97	70-130	
Dibromofluoromethane (S)	%			102	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859708 1859709

Parameter	Units	40186800002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	52.2	54.1	104	108	70-130	4	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	49.8	53.1	100	106	70-130	6	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	51.8	52.6	104	105	70-137	2	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	50.3	51.4	100	102	73-153	2	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	55.9	57.8	112	116	73-138	3	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	50.1	52.5	100	105	70-130	5	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	49.3	53.5	99	107	58-129	8	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	52.6	53.3	105	107	70-130	1	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	51.8	55.2	104	110	70-130	6	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	49.8	51.6	100	103	75-140	4	20	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859708 1859709

Parameter	Units	40186800002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloropropane	ug/L	<0.28	50	50	51.6	54.2	103	108	71-138	5	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	54.3	56.0	109	112	70-130	3	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	52.8	55.3	106	111	70-130	4	20	
Benzene	ug/L	0.76J	50	50	51.7	53.7	102	106	70-130	4	20	
Bromodichloromethane	ug/L	<0.36	50	50	52.9	53.6	106	107	70-130	1	20	
Bromoform	ug/L	<4.0	50	50	51.0	54.0	102	108	68-129	6	20	
Bromomethane	ug/L	<0.97	50	50	44.9	47.6	90	95	15-170	6	20	
Carbon tetrachloride	ug/L	<0.17	50	50	53.4	55.3	107	111	70-130	3	20	
Chlorobenzene	ug/L	<0.71	50	50	53.2	55.2	106	110	70-130	4	20	
Chloroethane	ug/L	<1.3	50	50	51.1	52.5	102	105	51-148	3	20	
Chloroform	ug/L	<1.3	50	50	51.5	53.0	103	106	74-136	3	20	
Chloromethane	ug/L	<2.2	50	50	26.3	26.3	53	53	23-115	0	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	49.6	50.9	99	102	70-131	3	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	50.8	51.8	102	104	70-130	2	20	
Dibromochloromethane	ug/L	<2.6	50	50	52.6	53.2	105	106	70-130	1	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	25.3	26.2	51	52	10-132	3	20	
Ethylbenzene	ug/L	<0.22	50	50	55.0	56.4	110	113	80-125	2	20	
Isopropylbenzene (Cumene)	ug/L	<0.39	50	50	56.2	58.4	112	117	70-130	4	20	
m&p-Xylene	ug/L	<0.47	100	100	111	113	111	113	70-130	2	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	58.6	60.9	117	122	51-145	4	20	
Methylene Chloride	ug/L	<0.58	50	50	56.7	57.6	113	115	73-140	2	20	
o-Xylene	ug/L	<0.26	50	50	55.4	57.7	111	115	70-130	4	20	
Styrene	ug/L	<0.47	50	50	56.0	57.8	112	116	70-130	3	20	
Tetrachloroethene	ug/L	<0.33	50	50	51.1	52.3	102	105	70-130	2	20	
Toluene	ug/L	<0.17	50	50	53.0	55.0	106	110	80-131	4	20	
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	56.7	57.4	113	115	73-148	1	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	46.7	48.6	93	97	70-130	4	20	
Trichloroethene	ug/L	<0.26	50	50	52.8	54.2	106	108	70-130	3	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	56.5	58.8	113	118	74-147	4	20	
Vinyl chloride	ug/L	<0.17	50	50	42.4	43.6	85	87	41-129	3	20	
4-Bromofluorobenzene (S)	%						96	95	70-130			
Dibromofluoromethane (S)	%						100	100	70-130			
Toluene-d8 (S)	%						99	98	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

QC Batch: 320208 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40186800001, 40186800002, 40186800003, 40186800004, 40186800005, 40186800006, 40186800007, 40186800008, 40186800009, 40186800010

METHOD BLANK: 1860332 Matrix: Water
Associated Lab Samples: 40186800001, 40186800002, 40186800003, 40186800004, 40186800005, 40186800006, 40186800007, 40186800008, 40186800009, 40186800010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	05/09/19 14:08	

LABORATORY CONTROL SAMPLE: 1860333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.6	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1860334 1860335

Parameter	Units	40186739001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10300	10000	10000	20800	22000	105	117	90-110	5	15	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1860336 1860337

Parameter	Units	40186800002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	25.8	20	20	47.0	47.0	106	106	90-110	0	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

QC Batch: 320170 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40186800001, 40186800002

METHOD BLANK: 1860090 Matrix: Water
Associated Lab Samples: 40186800001, 40186800002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	05/03/19 12:37	

LABORATORY CONTROL SAMPLE: 1860091

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	102	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1860092 1860093

Parameter	Units	40186580033 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	290	200	200	502	499	106	104	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1860094 1860095

Parameter	Units	40186800002 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	211	200	200	402	406	96	97	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

QC Batch: 320171 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40186800003, 40186800004, 40186800005, 40186800006, 40186800007, 40186800009, 40186800010

METHOD BLANK: 1860097 Matrix: Water
Associated Lab Samples: 40186800003, 40186800004, 40186800005, 40186800006, 40186800007, 40186800009, 40186800010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	05/03/19 12:58	

LABORATORY CONTROL SAMPLE: 1860098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	107	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1860099 1860100

Parameter	Units	40186800010 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	214	200	200	399	412	92	99	90-110	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

QC Batch: 321053 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40186800008

METHOD BLANK: 1865196 Matrix: Water
Associated Lab Samples: 40186800008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	05/13/19 12:27	

LABORATORY CONTROL SAMPLE: 1865197

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	98.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1865198 1865199

Parameter	Units	40186975004 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	50.9	100	100	154	153	103	102	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1865200 1865201

Parameter	Units	40187096001 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	425	500	500	922	920	99	99	90-110	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

QC Batch: 320872 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 40186800009

METHOD BLANK: 1863724 Matrix: Water
Associated Lab Samples: 40186800009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.25	0.50	05/09/19 17:31	

LABORATORY CONTROL SAMPLE: 1863725

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863726 1863727

Parameter	Units	40186778001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	<0.25	10	10	9.4	9.2	93	91	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863728 1863729

Parameter	Units	40187208001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	1.0	10	10	10.4	10.5	94	95	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

QC Batch: 320730 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 40186800009

METHOD BLANK: 1862845 Matrix: Water
Associated Lab Samples: 40186800009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.22	0.73	05/08/19 16:20	

LABORATORY CONTROL SAMPLE: 1862846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	4.7	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862847 1862848

Parameter	Units	40186657001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	200	50	50	236	236	72	72	90-110	0	20	P6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862849 1862850

Parameter	Units	40186778001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	0.51J	5	5	5.1	5.2	93	93	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALIFIERS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

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

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186800001	**MW-16C**	EPA 6010	320374		
40186800002	**MW-16A**	EPA 6010	320374		
40186800003	**MW-16B**	EPA 6010	320374		
40186800004	**MW-16B DUP**	EPA 6010	320374		
40186800005	**MW-20C**	EPA 6010	320374		
40186800006	**MW-20B**	EPA 6010	320374		
40186800007	**MW-20A**	EPA 6010	320374		
40186800008	**MW-20A DUP**	EPA 6010	320374		
40186800009	**MW-2A**	EPA 6010	320374		
40186800010	**MW-2B**	EPA 6010	320374		
40186800001	**MW-16C**	EPA 8260	320090		
40186800002	**MW-16A**	EPA 8260	320090		
40186800003	**MW-16B**	EPA 8260	320090		
40186800004	**MW-16B DUP**	EPA 8260	320090		
40186800005	**MW-20C**	EPA 8260	320090		
40186800006	**MW-20B**	EPA 8260	320090		
40186800007	**MW-20A**	EPA 8260	320090		
40186800008	**MW-20A DUP**	EPA 8260	320090		
40186800009	**MW-2A**	EPA 8260	320090		
40186800010	**MW-2B**	EPA 8260	320090		
40186800011	**TRIP BLANK**	EPA 8260	320090		
40186800001	**MW-16C**				
40186800002	**MW-16A**				
40186800003	**MW-16B**				
40186800004	**MW-16B DUP**				
40186800005	**MW-20C**				
40186800006	**MW-20B**				
40186800007	**MW-20A**				
40186800008	**MW-20A DUP**				
40186800009	**MW-2A**				
40186800010	**MW-2B**				
40186800001	**MW-16C**	EPA 300.0	320208		
40186800002	**MW-16A**	EPA 300.0	320208		
40186800003	**MW-16B**	EPA 300.0	320208		
40186800004	**MW-16B DUP**	EPA 300.0	320208		
40186800005	**MW-20C**	EPA 300.0	320208		
40186800006	**MW-20B**	EPA 300.0	320208		
40186800007	**MW-20A**	EPA 300.0	320208		
40186800008	**MW-20A DUP**	EPA 300.0	320208		
40186800009	**MW-2A**	EPA 300.0	320208		
40186800010	**MW-2B**	EPA 300.0	320208		
40186800001	**MW-16C**	EPA 310.2	320170		
40186800002	**MW-16A**	EPA 310.2	320170		
40186800003	**MW-16B**	EPA 310.2	320171		
40186800004	**MW-16B DUP**	EPA 310.2	320171		
40186800005	**MW-20C**	EPA 310.2	320171		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40186800

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186800006	**MW-20B**	EPA 310.2	320171		
40186800007	**MW-20A**	EPA 310.2	320171		
40186800008	**MW-20A DUP**	EPA 310.2	321053		
40186800009	**MW-2A**	EPA 310.2	320171		
40186800010	**MW-2B**	EPA 310.2	320171		
40186800009	**MW-2A**	EPA 350.1	320872		
40186800009	**MW-2A**	EPA 351.2	320730	EPA 351.2	320791

Pace Analytical
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

4101868 00

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	GHD
Branch/Location:	St. Paul
Project Contact:	G. Anderson
Phone:	651-639-0913
Project Number:	11115796-4020
Project Name:	Rhinelander LR
Project State:	WI
Sampled By (Print):	Ryan Aamot
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, Sl = Sludge, WP = Wipe

FILTERED? (YES/NO) — Y/N
PRESERVATION (CODE)* — Pick Letter

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: VOCs + tetrahydrofuran	Chloride; Alk	Fe; Mn	Boron	Hardness	Ammonia; TKN	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	W-190429-RA-06	4/29/19	1420	GW	✓	✓	✓		✓				
002	W-190429-RA-01		1440		✓	✓	✓		✓				
003	W-190429-RA-04		1503		✓	✓	✓		✓				
004	W-190429-RA-05		1503		✓	✓	✓		✓				
005	W-190430-RA-09	4/30/19	808		✓	✓	✓		✓				
006	W-190430-RA-08		820		✓	✓	✓		✓				
007	W-190430-RA-07		848		✓	✓	✓	✓	✓				
008	W-190430-RA-10		900		✓	✓	✓		✓				
009	W-190430-RA-02		941		✓	✓	✓	✓	✓	✓			
010	W-190430-RA-03		959		✓	✓	✓		✓				
011	trip blank				✓								

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	4/30/19 1500		
Fed Ex	05/01/19 1005	Minnetka Pace	05/01/19 1005
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.: 4101868 00
Receipt Temp = 1.0 °C
Sample Receipt pH: OK / Adjusted
Cooler Custody Seal: Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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

Sample Preservation Receipt Form

Client Name: CHD Project # 10186800

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

Lab Lot# of pH paper: 10us 358 Lab Std #ID of preservation (if pH adjusted):

Initial when completed: GL Date/ Time:

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	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001											1		1					3													✓		2.5 / 5 / 10
002											3		3					3													✓		2.5 / 5 / 10
003											1		1					3													✓		2.5 / 5 / 10
004											1		1					3													✓		2.5 / 5 / 10
005											1		1					3													✓		2.5 / 5 / 10
006											1		1					3													✓		2.5 / 5 / 10
007											1		1					3													✓		2.5 / 5 / 10
008											1		1					3													✓		2.5 / 5 / 10
009											1		1	1				3										✓			✓		2.5 / 5 / 10
010											1		1					3													✓		2.5 / 5 / 10
011																		2									2						2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	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

05/01/19

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40186800

40186800

Client Name: GHD

Courier: ☐ CS Logistics ☒ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other:

Tracking #: 8126 1666 0117

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 - 78 **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 1.0 /Corr: 1.0

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.

Person examining contents: Date: 05/01/19 Initials: ar

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☒No ☐N/A	2. Mail, invoice, preservation ar 05/01/19
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☒No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☐Yes ☒No ☐N/A	12. No times on vials or bottles ar 05/01/19
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☒Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 416		

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

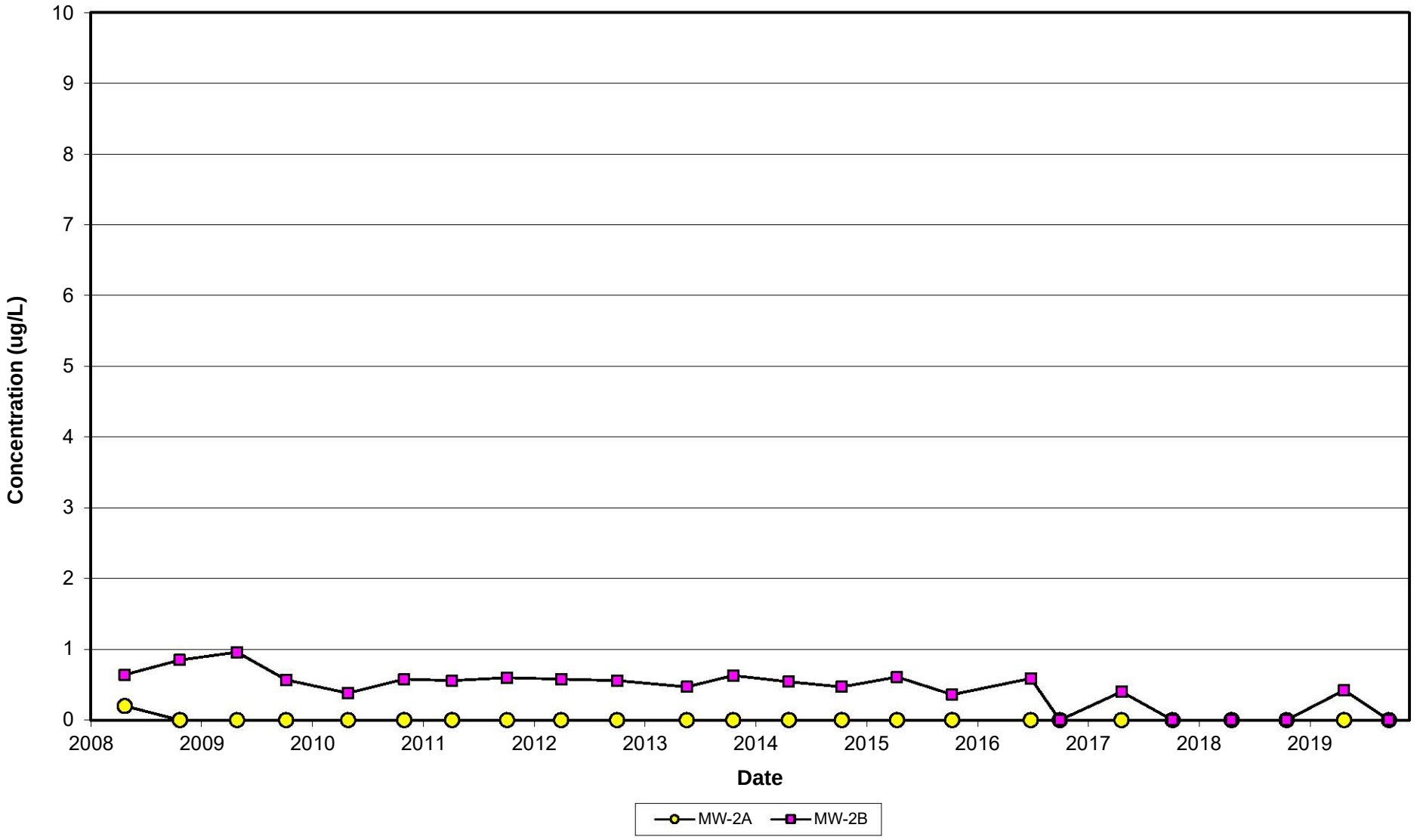
Person Contacted: Date/Time:

Comments/ Resolution:

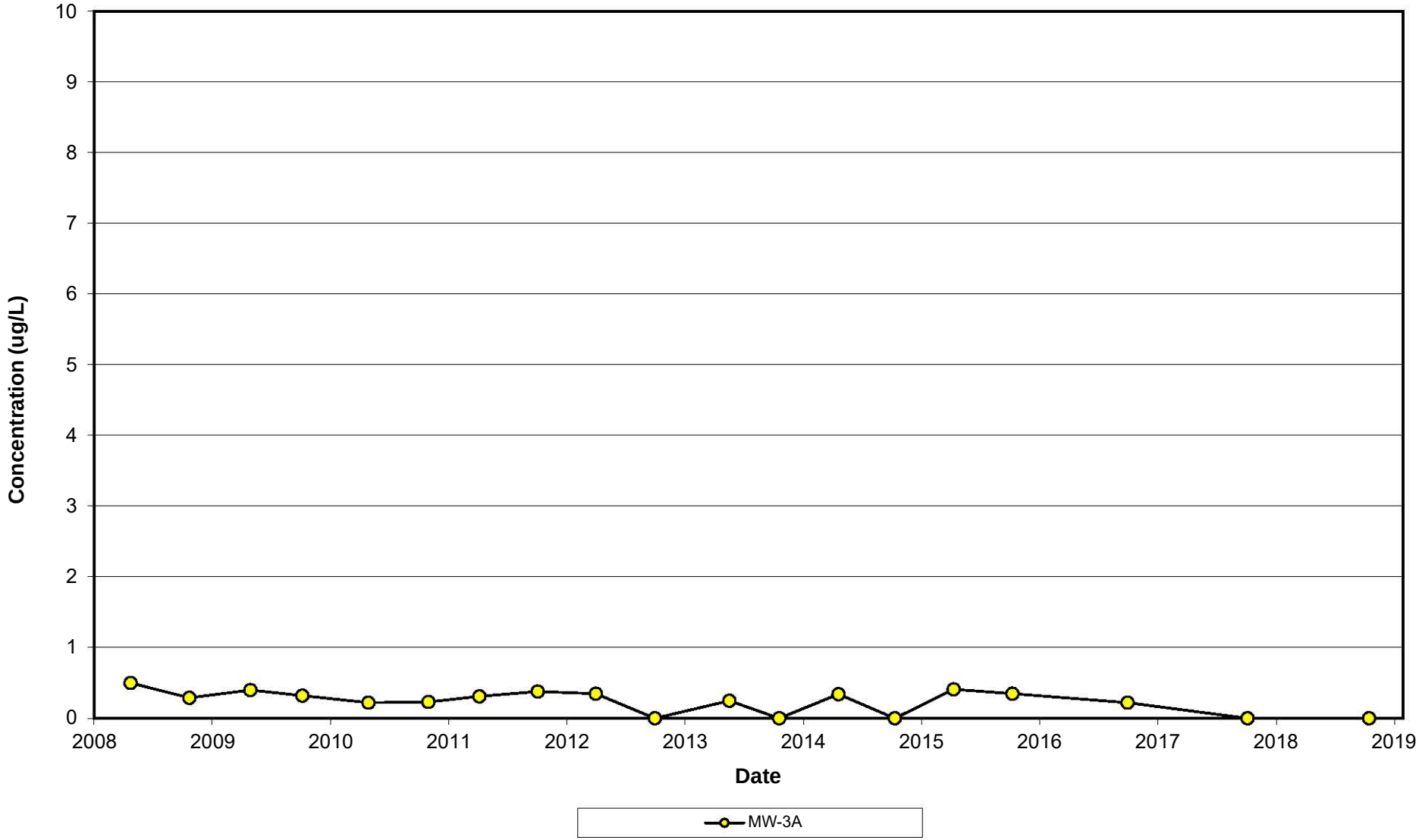
Project Manager Review: Review for DM **Date:** 05/01/19

Appendix C
Vinyl Chloride Graphs

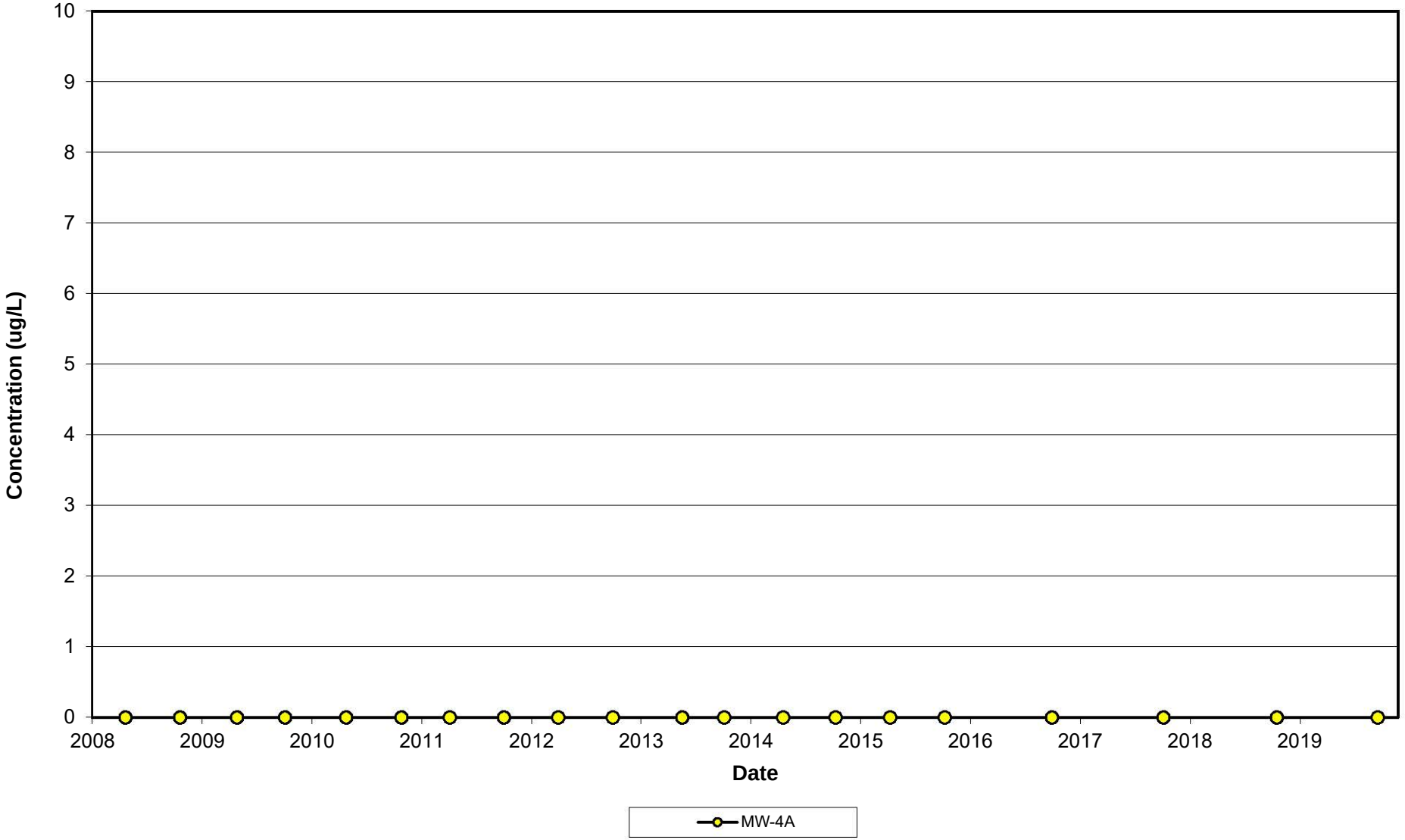
Vinyl Chloride Concentrations Over Time
(MW-2 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



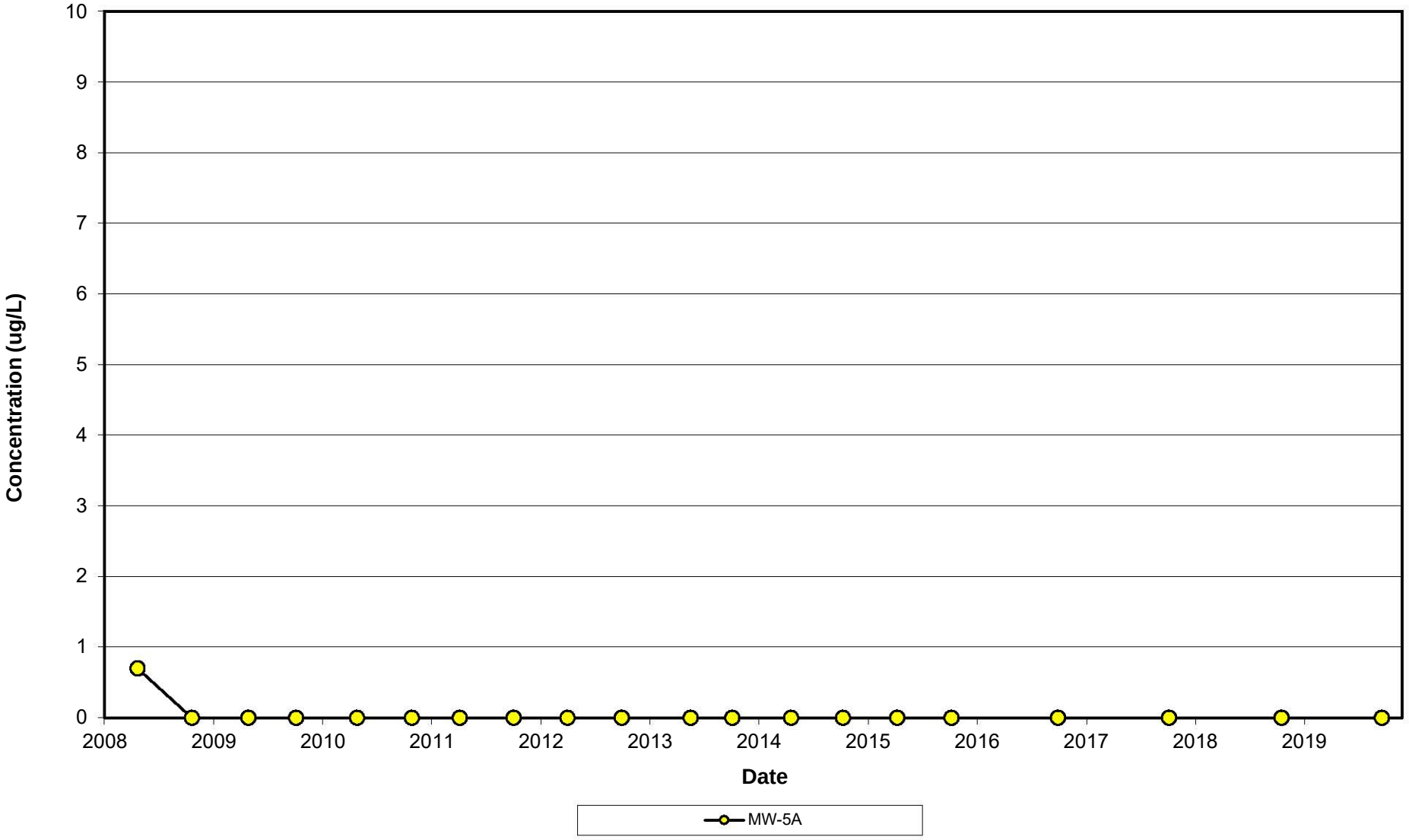
Vinyl Chloride Concentrations Over Time
(MW-3A)
Rhinelander Landfill
Rhinelander, Wisconsin



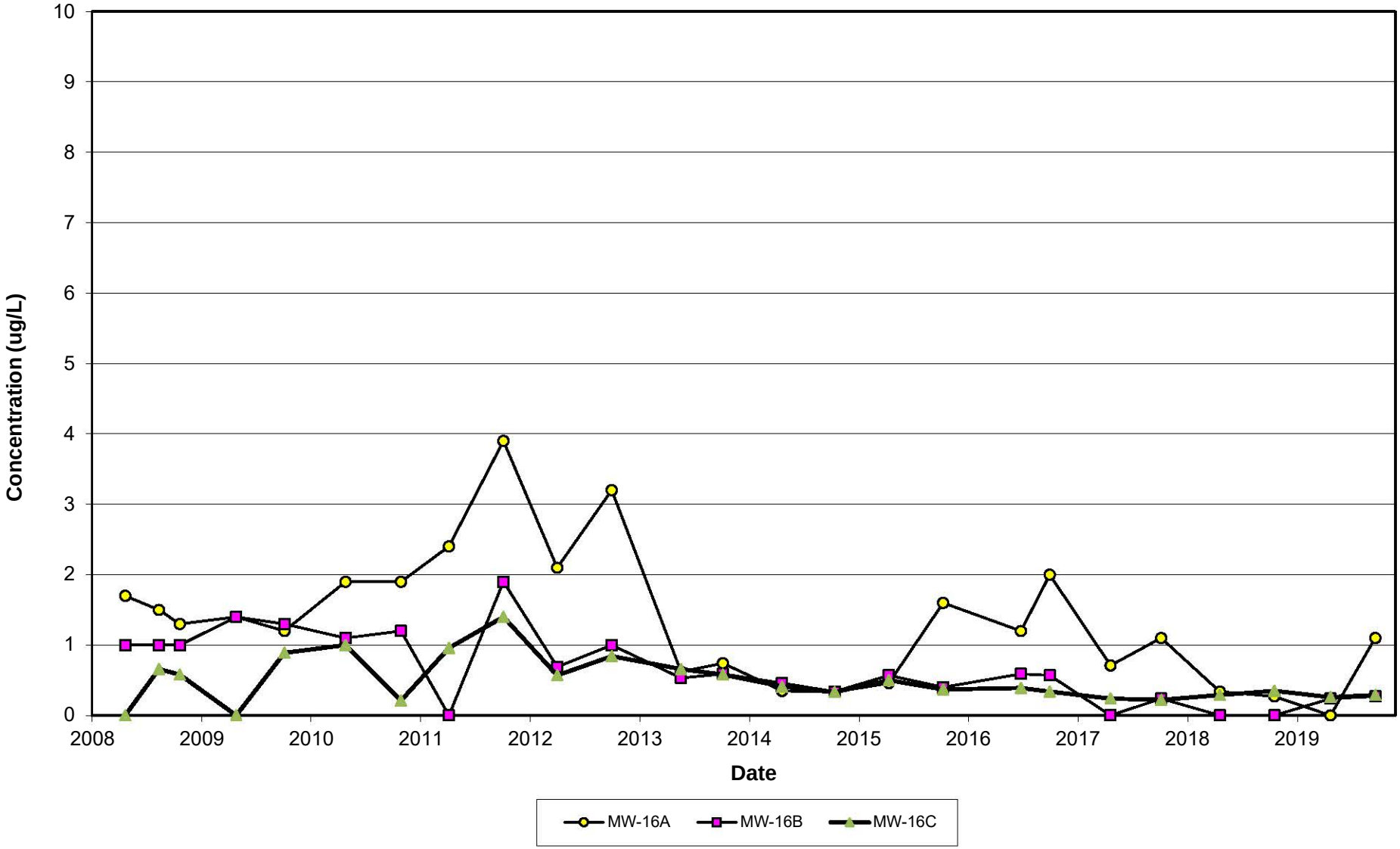
Vinyl Chloride Concentrations Over Time
(MW-4A)
Rhinelander Landfill
Rhinelander, Wisconsin



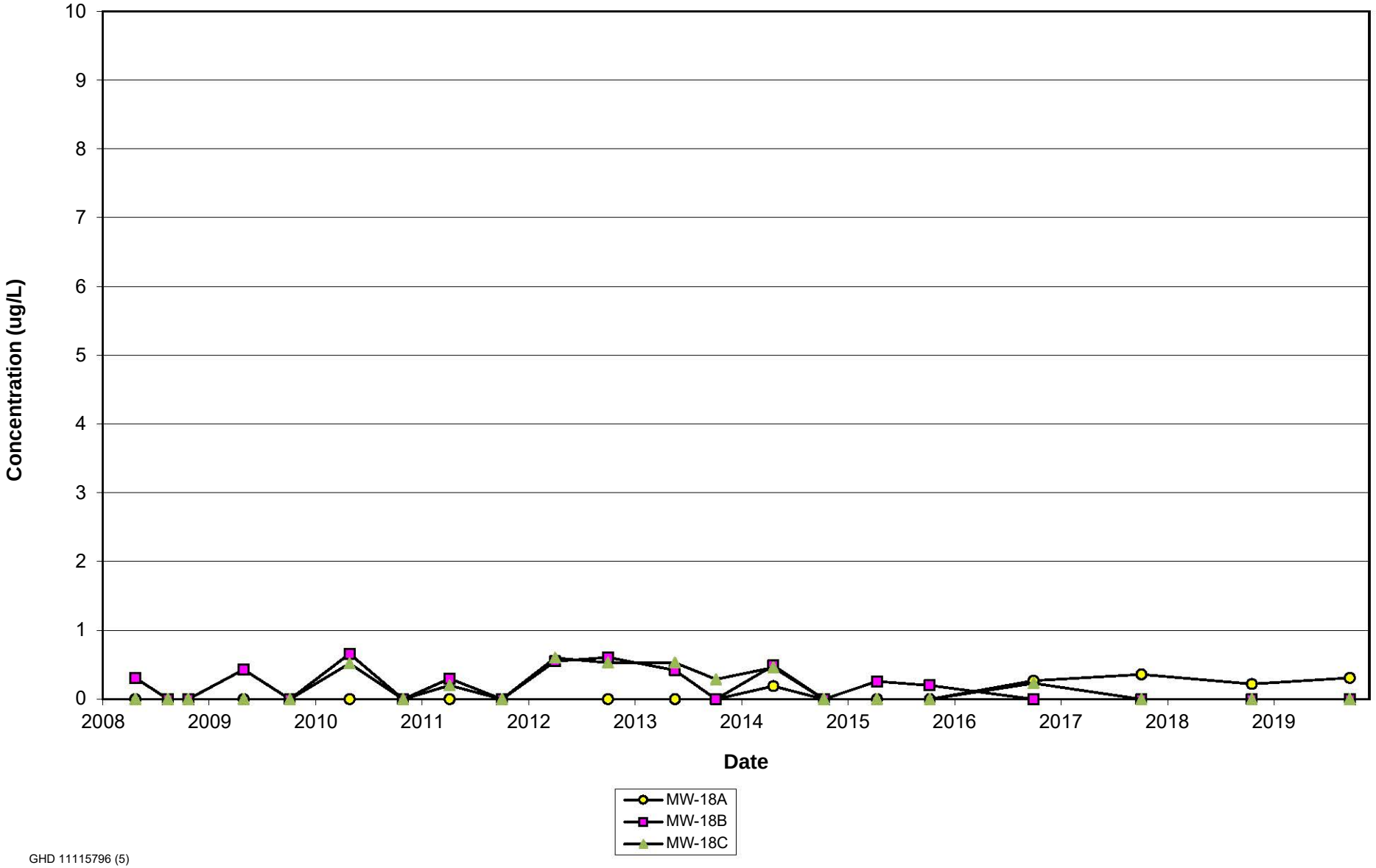
Vinyl Chloride Concentrations Over Time
(MW-5A)
Rhinelander Landfill
Rhinelander, Wisconsin



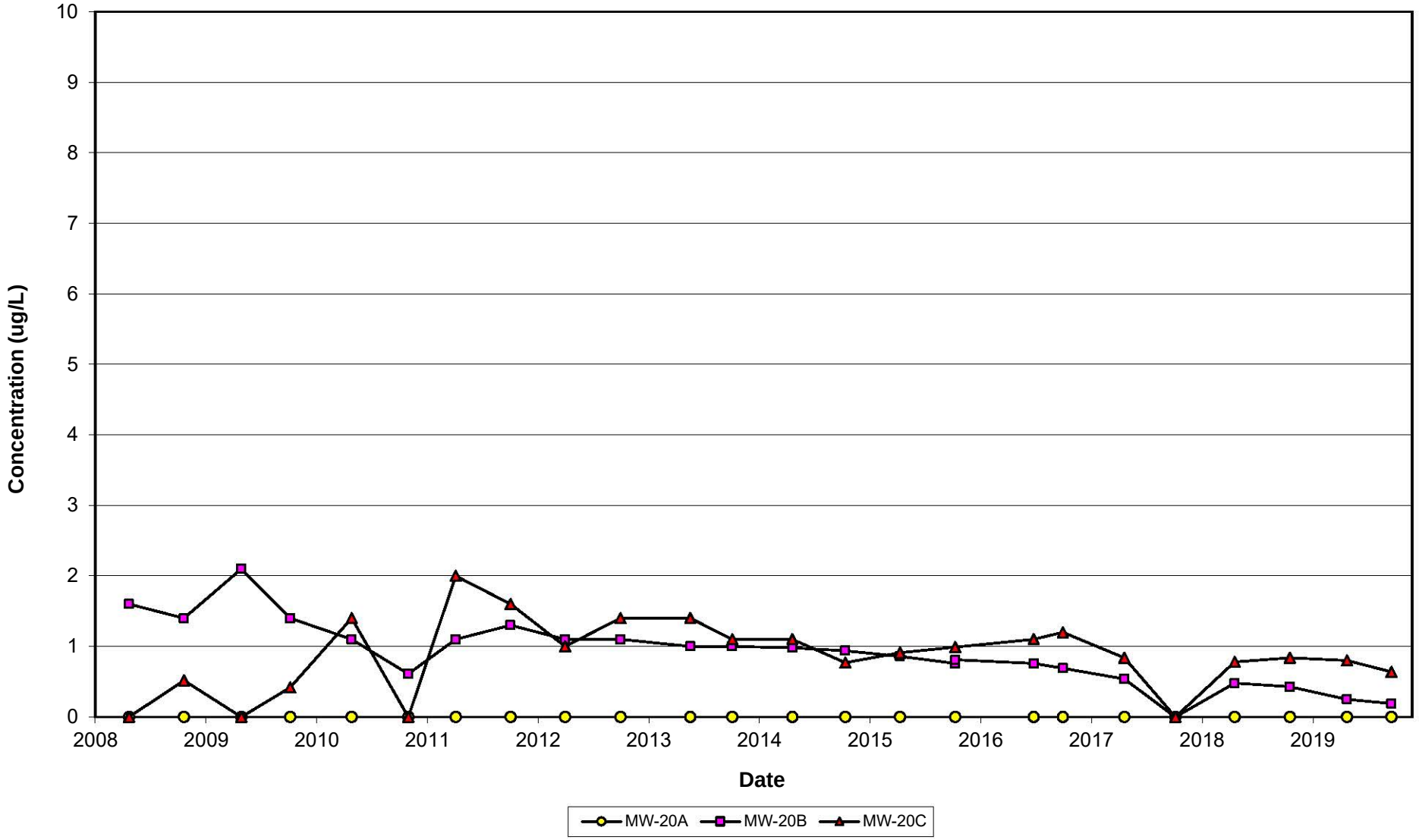
Vinyl Chloride Concentrations Over Time
(MW-16 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



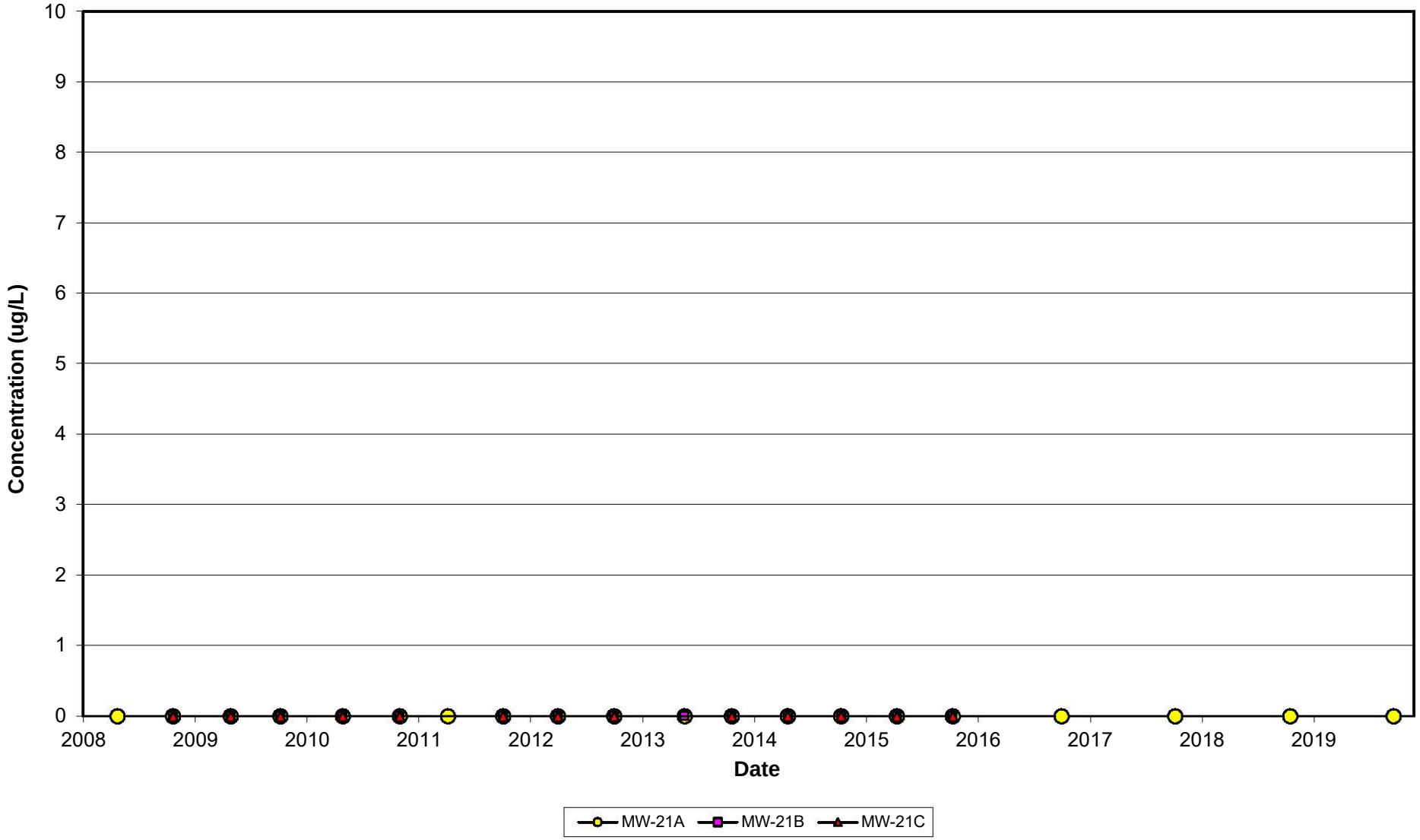
Vinyl Chloride Concentrations Over Time
(MW-18 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



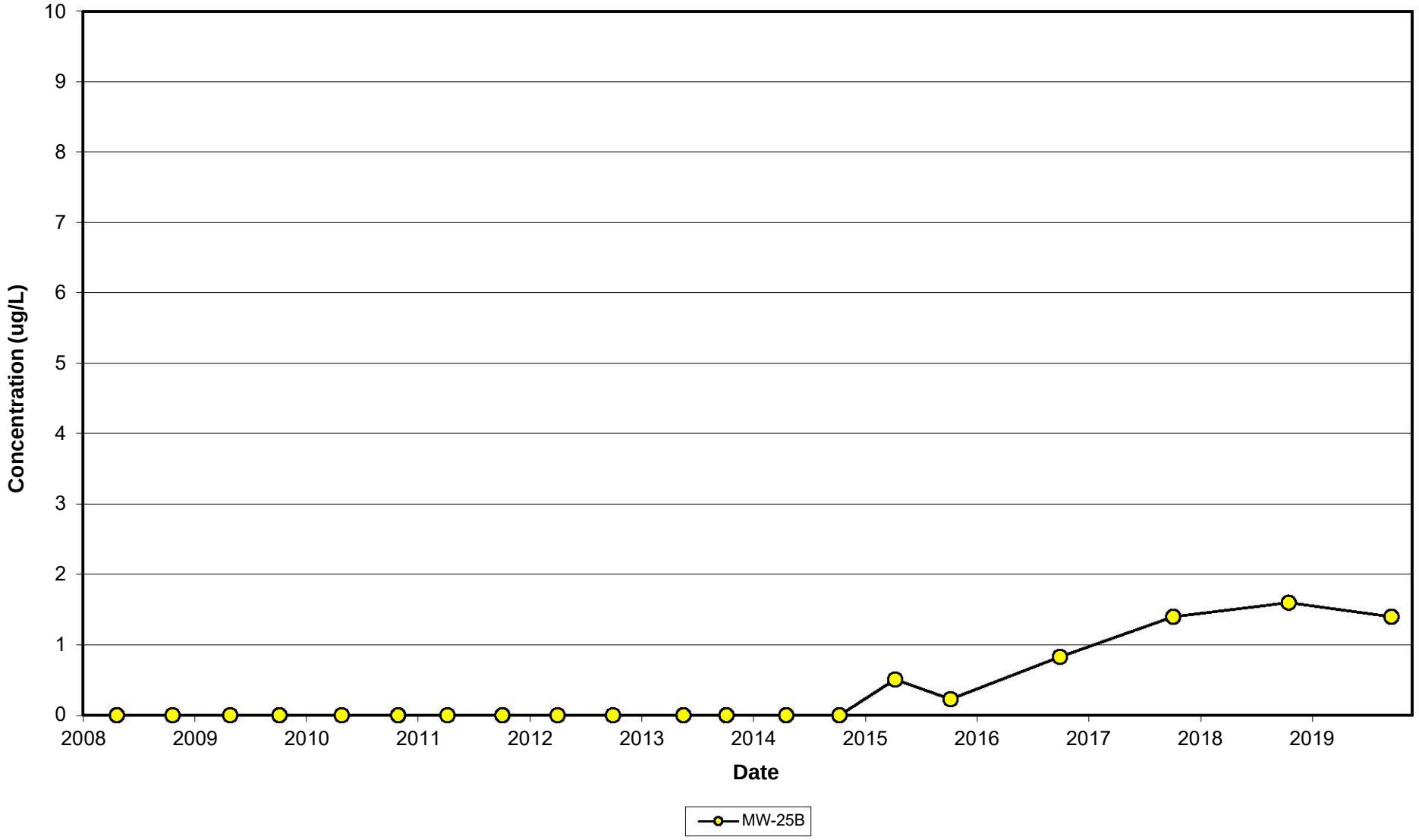
Vinyl Chloride Concentrations Over Time
(MW-20 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



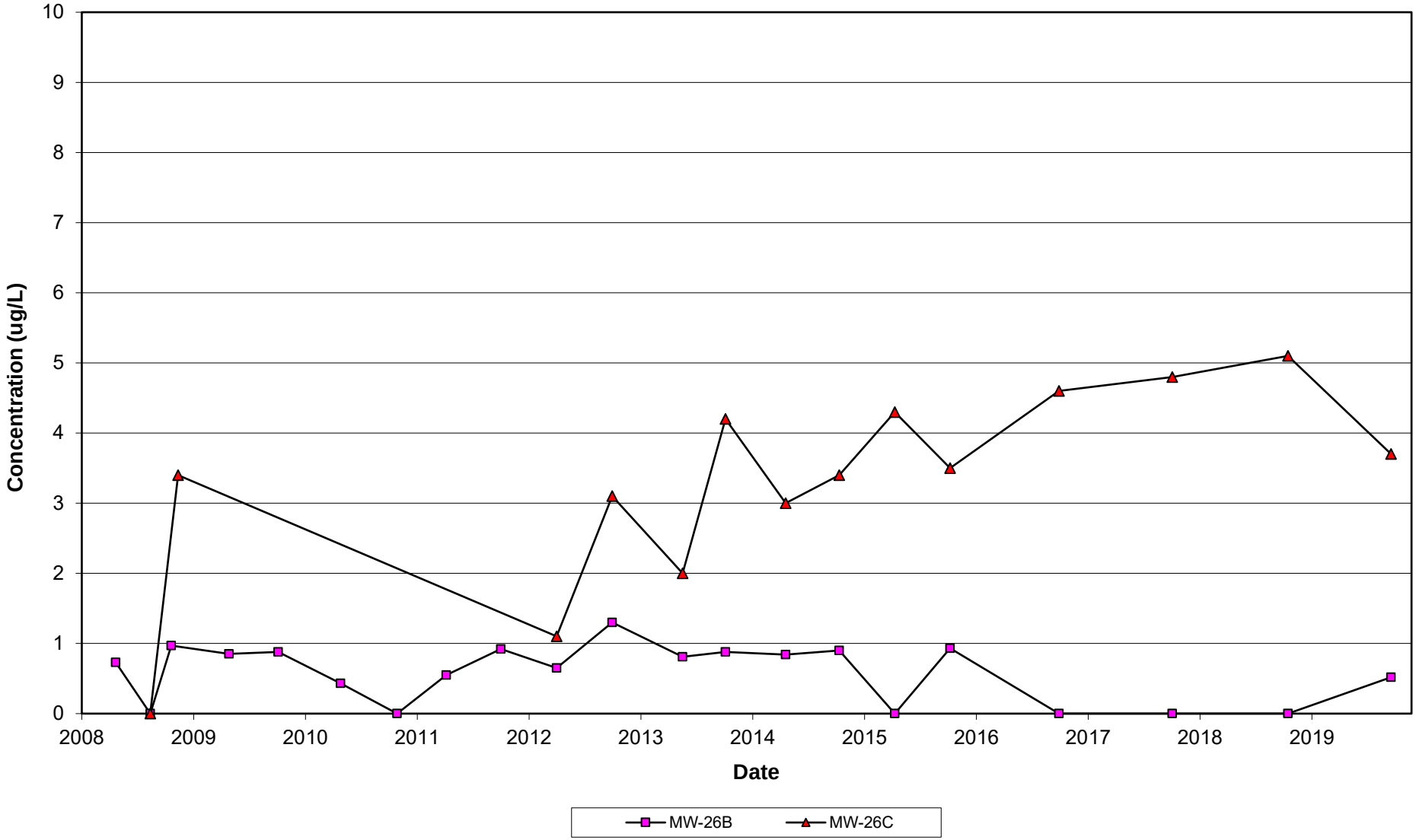
Vinyl Chloride Concentrations Over Time
(MW-21 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



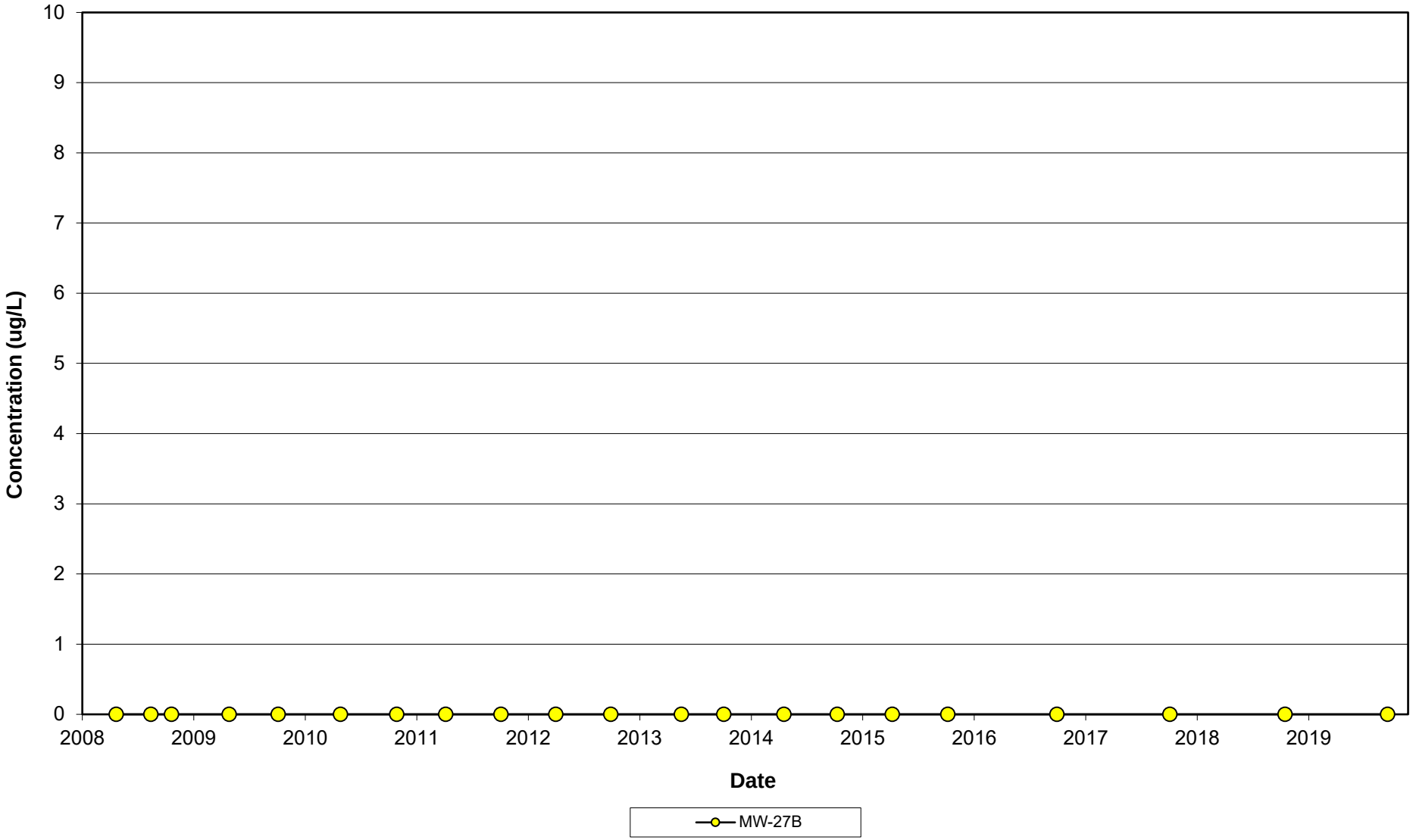
Vinyl Chloride Concentrations Over Time
(MW-25B)
Rhinelander Landfill
Rhinelander, Wisconsin



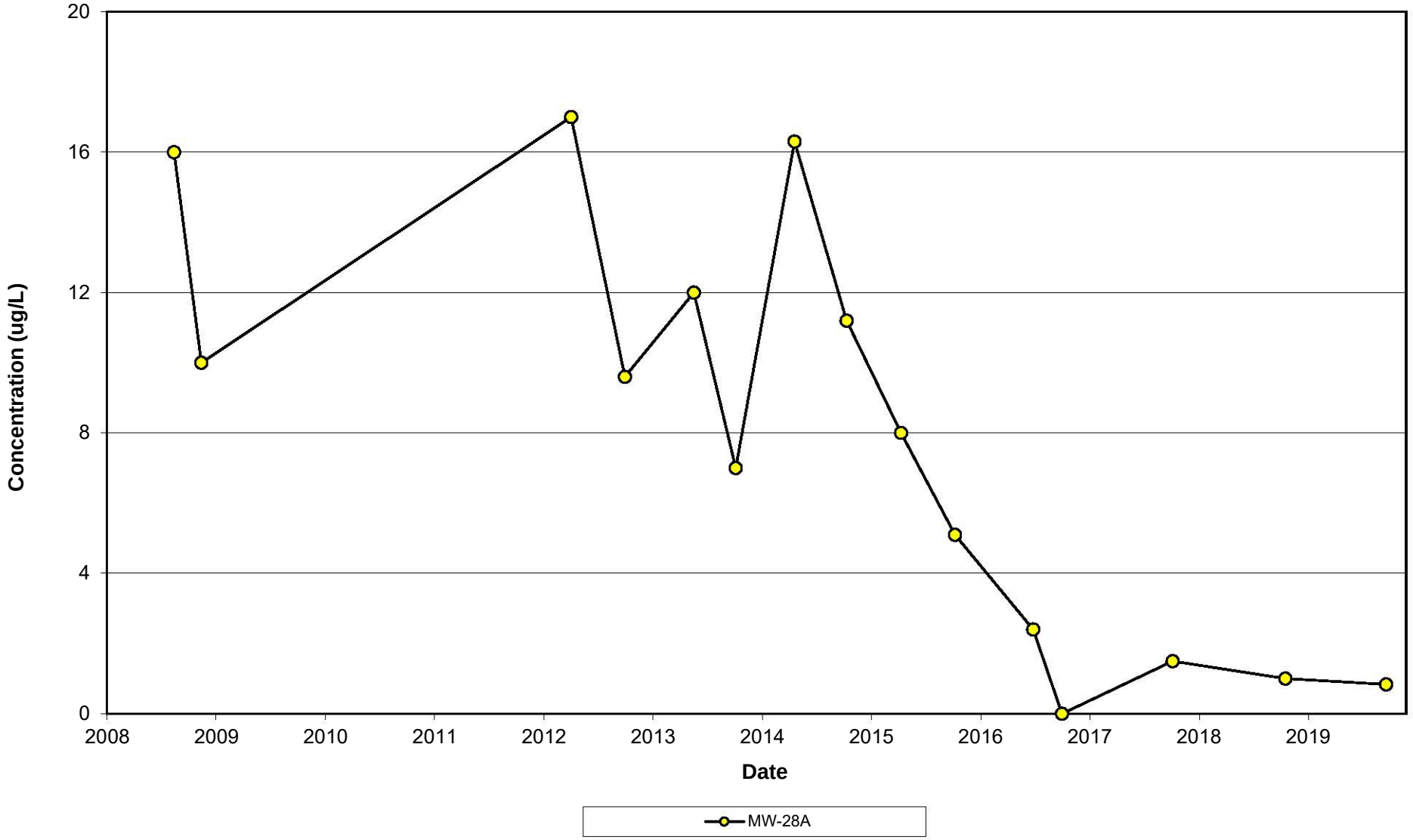
Vinyl Chloride Concentrations Over Time
(MW-26 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



Vinyl Chloride Concentrations Over Time
(MW-27B)
Rhinelander Landfill
Rhinelander, Wisconsin



Vinyl Chloride Concentrations Over Time
(MW-28A)
Rhinelander Landfill
Rhinelander, Wisconsin



about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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