



**CIVIL & ENVIRONMENTAL
ENGINEERING, SURVEYING**

December 29, 2017

Wisconsin Department of Natural Resources

Attn: Mr. Phil Richard
875 South 4th Avenue
Park Falls, WI 54552



Subject:

Site Update
Phillips Plating Corporation
984 North Lake Avenue
Phillips, WI
BRRTS: 02-51-559634

Dear Phil,

The purpose of this letter is to provide you with an update for site investigation activities associated with the above referenced site. The site location is shown on Figure 1.

BACKGROUND

This site is in the NW $\frac{1}{4}$, SW $\frac{1}{4}$, Section 7, T37N, R01E in the City of Phillips, Price County. A site vicinity map is included as attachment (Figure 1). The facility is an operating plating facility which specializes in metallic plating of various plastic components.

SUMMARY OF DATES AND WORK COMPLETED

- **February 14, 2017** – REI onsite to sample select monitoring wells and collect field measurements
- **August 29, 2017** – REI onsite to sample select monitoring wells and collect field measurements

SITE SUMMARY

REI submitted the Site Investigation Report / Remedial Action Plan on October 30, 2013. Site Update reports have been submitted on January 24, 2013, March 13, 2013, October 14, 2014, and January 19, 2017. These reports conclude that groundwater contamination originating from the Phillips Plating wastewater process is present on and off site. REI presented three (3) alternatives as a part of the Remedial Action Plan including source excavation, chemical injection, and long-term groundwater monitoring for natural attenuation. Groundwater monitoring was selected due to the limited ability to access the impacted source areas inside the building as well as the limited access between the building, State Highway 13 and railroad right of way along State Highway 13. Since the identification of the issue, Phillips Plating has also replaced or upgraded all process water tanks and piping by adding secondary containment or removing the Underground Storage Tanks (USTs) and replacing with Aboveground Storage Tanks (ASTs). Therefore, it is believed that there is no additional leak or ongoing source to the contamination.



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4080 N. 20th Avenue Wausau, WI 54401
715-675-9784 REIengineering.com

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Groundwater elevation data was collected prior to sampling and summarized on Table 1 and groundwater field monitoring and laboratory analytical results are summarized on Tables 2a-2m. Monitoring well MW3 was abandoned in advance of a building expansion in May 2015. The updated groundwater flow maps for each of the sample events completed along with location of all monitoring wells and piezometer are depicted in Figures 3a-3b.

GROUNDWATER ANALYTICAL RESULTS

Groundwater analytical results reveal exceedances of the metals of concern for this investigation of Chromium and Nickel above the Enforcement Standard (ES) in down-gradient wells of MW-6 and MW-8, MW9 all located east of the Phillips Plating building. Analytical results reveal concentrations appears to be stable or decreasing for Chromium and Nickel at each of these monitoring wells since sample events conducted in 2014. Side gradient monitoring wells MW5, MW11 and MW12 reveal no detections above the ES or PAL for the metals of concern. Up-gradient wells MW1 and MW4 also do not reveal any detections for the metals of concern.

MW-10 is located furthest downgradient along the contamination plume and analytical results continue to reveal levels of Chromium and Nickel exceeding the ES. Concentrations were relatively steady or slowly slightly increasing from the beginning of the investigation until May 4, 2015. Concentrations were higher than ever previously during this event. Concentrations have been sharply fluctuating since over the past seven sample events. It does appear there is an inverse correlation to concentration and water levels in MW10 as when water levels decrease, there is an increase in concentrations. However, the trendline in concentrations over time would be slightly decreasing from February 2015 to present. Groundwater samples were collected, and split samples were submitted to Pace Analytical Services and Northern Lake Service, Inc. for wells MW10 and MW11 as originally agreed to with Phillips Medisize. Figure 4a and 4b show the estimated extent of dissolved Chromium and Nickel in groundwater for August 9, 2017 sampling event.

PZ1 is located immediately adjacent to MW6. Concentrations of Nickel are below the PAL and on occasion below method detection limits. Therefore, although there is a downward gradient between MW6 and PZ1, detections of Nickel are not being realized in PZ1 as they are in MW6. However, Chromium is present in concentrations exceeding the ES and has been relatively stable in levels detected since the initial sampling event.

REI has not been successful to date in communications with downgradient property owners to secure placement locations for additional monitoring wells and piezometers.

ACTIONS CONDUCTED BY PHILLIPS PLATING

The identified contamination was first reported to the WDNR in November 2012. Since this time, Phillips Plating has systemically upgraded all piping to aboveground and upgraded all process tanks by relining tanks and converting them from single wall to double wall or replacing with aboveground tanks. Much effort and cost has gone into the upgrades to make sure that there is no additional release to the environment. This was all done along with an expansion of the facility.

CONCLUSIONS AND RECOMMENDATIONS

REI has conducted ongoing groundwater monitoring to demonstrate stable or decreasing contaminant trends. REI and Phillips Plating believe the source(s) of the original release have been eliminated by upgrades completed by Phillips Plating. REI will continue to conduct semi-annual sampling until further consistent reductions in contamination in source wells are observed.

Additional efforts will be taken to advance additional monitoring points to further assist in this long-term groundwater monitoring.

Please contact our office at (715) 675-9784 or electronically at klassa@reiengineering.com to further discuss anything contained in this update.

Sincerely,
REI Engineering, Inc.



Ken Lassa, P.S.
Environmental Services Department Manager

Attachments

- Table 1 – Groundwater Elevation Summary
- Table 2a-2m – Groundwater Analytical Results Summaries
- Figure 1 – Site Vicinity Map
- Figure 2 – Site Map
- Figure 3a-3b – Groundwater Contour Maps
- Figure 4a – 4b – Estimated Extent of Groundwater Contamination for Chromium and Nickel
- Attachment A –Laboratory Analytical Reports

Cc: Mr. Darin Baratka, Phillips Plating Corp., 984 N. Lake Avenue Phillips, WI 54555
Mr. Dan Anderson, Phillips Medisize (electronic copy)

TABLE 1
GROUNDWATER ELEVATION SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI

Well	MW1	MW2	MW3	MW4	MW5	MW6	MW7	MW8	MW9	MW10	MW11	MW12	PZ1
TOC Elevation	1459.82	1457.24	1461.33	1459.19	1457.51	1458.16	1453.30	1457.92	1455.91	1450.54	1452.99	1459.5	1457.96
Ground Elevation	1460.22	1457.58	1461.59	1459.52	1457.99	1458.67	1454.02	1458.23	1456.33	1451.11	1453.51	1459.98	1458.36
Top of Screen Elevation	1445.92	1442.94	1446.85	1444.85	1443.86	1448.49	1443.76	1447.86	1445.85	1446.21	1445.75	1449.88	1429.73
Well Depth	23.90	24.30	24.48	24.34	23.65	19.67	19.54	20.06	20.06	14.33	17.24	19.62	33.23
Depth to Water (from TOC)													
12/12/2012	12.76	12.58	15.43	13.79	15.70	NI	NI	NI	NI	NI	NI	NI	NI
1/3/2013	13.06	12.83	15.74	14.02	15.77	16.76	15.04	NI	NI	NI	NI	NI	NI
2/6/2013	13.49	13.24	16.08	14.19	15.84	16.85	15.19	NI	NI	NI	NI	NI	NI
2/19/2013	NC	NC	NC	NC	NC	NC	NC	9.78	17.39	NI	NI	NI	NI
3/5/2013	13.76	13.50	16.33	14.46	15.74	16.76	15.12	9.78	17.37	NI	NI	NI	NI
5/8/2013	10.38	9.83	9.72	9.79	11.38	15.75	13.07	9.39	14.86	NI	NI	NI	NI
7/15/2013	9.39	10.69	10.81	10.51	15.15	16.19	13.96	9.68	15.97	7.8	9.94	13.06	17.05
8/12/2013	9.76	11.09	12.01	11.35	15.31	16.11	14.21	9.57	16.24	8.03	10.28	14.21	17.21
11/12/2013	10.14	11.13	11.37	11.49	15.29	16.3	14.2	9.63	16.34	8.1	10.39	14.61	17.43
2/12/2014	10.99	12.20	14.31	12.95	15.56	16.61	15.13	10.04	17.32	9.04	11.41	16.16	18.27
6/2/2014	8.42	10.03	9.41	9.63	14.38	15.91	13.14	9.41	15.12	7.29	9.11	11.42	16.32
8/5/2014	9.45	10.94	11.28	11.05	15.28	16.27	14.11	9.73	16.13	8.03	10.19	12.95	17.11
11/5/2014	9.91	11.25	11.56	X	15.39	16.39	14.33	9.89	16.5	8.28	10.54	13.57	17.45
2/10/2015	11.31	11.73	13.36	12.59	15.56	16.51	14.95	10.01	17.11	8.85	11.17	17.8	18.03
5/4/2015	10.53	12.94	11.26	11.87	15.37	16.31	14.1	9.87	16.19	8.04	10.24	12.94	17.45
8/4/2015	9.94	11.11	NA	11.27	15.24	16.18	14.11	9.39	16.02	8.02	10.24	13.61	17.25
11/3/2015	10.21	11.78	NA	12.56	15.41	16.32	14.25	9.58	16.42	8.22	10.37	14.13	17.6
2/22/2016	10.86	12.06	NA	NA	15.52	16.36	14.89	9.41	17.07	8.76	11.08	15.77	18.06
8/31/2016	10.32	11.55	NA	12.38	NA	16.32	13.99	9.78	16.09	7.9	10.07	15.45	17.16
2/14/2017	11.68	12.90	NA	13.12	15.76	16.55	14.81	9.76	17.09	8.76	11.06	15.81	18.2
8/29/2017	9.71	11.71	NA	11.90	15.42	NA	13.87	10.17	16.19	7.90	10.07	13.66	17.13
Water Elevation													
12/12/2012	1447.06	1444.66	1445.9	1445.4	1441.81	NI	NI	NI	NI	NI	NI	NI	NI
1/3/2013	1446.76	1444.41	1445.59	1445.17	1441.74	1441.40	1438.26	NI	NI	NI	NI	NI	NI
2/6/2013	1446.33	1444.00	1445.25	1445.00	1441.67	1441.31	1438.11	NI	NI	NI	NI	NI	NI
2/19/2013	NC	NC	NC	NC	NC	NC	NC	1448.45	1438.94	NI	NI	NI	NI
3/5/2013	1446.06	1443.74	1445.00	1444.73	1441.77	1441.40	1438.18	1448.14	1438.54	NI	NI	NI	NI
5/8/2013	1449.44	1447.41	1451.61	1449.4	1446.13	1442.41	1440.23	1448.53	1441.05	NI	NI	NI	NI
7/15/2013	1450.43	1446.55	1450.52	1448.68	1442.36	1441.97	1439.34	1448.24	1439.94	1442.74	1443.05	1446.44	1440.91
8/12/2013	1450.06	1446.15	1449.32	1447.84	1442.2	1442.05	1439.09	1448.35	1439.67	1442.51	1442.71	1445.29	1440.75
11/12/2013	1449.68	1446.11	1449.96	1447.7	1442.22	1441.86	1439.1	1448.29	1439.57	1442.44	1442.6	1444.89	1440.53
2/12/2014	1448.83	1445.04	1447.02	1446.24	1441.95	1441.55	1438.17	1447.88	1438.59	1441.5	1441.58	1443.34	1439.69
6/2/2014	1451.4	1447.21	1451.92	1449.56	1443.13	1442.25	1440.16	1448.51	1440.79	1443.25	1443.88	1448.08	1441.64
8/5/2014	1450.37	1446.3	1450.05	1448.14	1442.23	1441.89	1439.19	1448.19	1439.78	1442.51	1442.8	1446.55	1440.85
11/5/2014	1449.91	1445.99	1449.77	X	1442.12	1441.77	1438.97	1448.03	1439.41	1442.26	1442.45	1445.93	1440.51
2/10/2015	1448.51	1445.51	1447.97	1446.6	1441.95	1441.65	1438.35	1447.91	1438.8	1441.69	1441.82	1441.7	1439.93
5/4/2015	1449.29	1444.3	1450.07	1447.32	1442.14	1441.85	1439.2	1448.05	1439.72	1442.5	1442.75	1446.56	1440.51
8/4/2015	1449.88	1446.13	NA	1447.92	1442.27	1441.98	1439.19	1448.53	1439.89	1442.52	1442.75	1445.89	1440.71
11/3/2015	1449.61	1445.46	NA	1446.63	1442.1	1441.84	1439.05	1448.34	1439.49	1442.32	1442.62	1445.37	1440.36
2/22/2016	1448.96	1445.18	NA	NA	1441.99	1441.80	1438.41	1448.51	1438.84	1441.78	1441.91	1443.73	1439.9
8/31/2016	1449.5	1445.69	NA	1446.81	NA	1441.84	1439.31	1448.14	1439.82	1442.64	1442.92	1444.05	1440.8
2/14/2017	1448.14	1444.34	NA	1446.07	1441.75	1441.61	1438.49	1448.16	1438.82	1441.78	1441.93	1443.69	1439.76
8/29/2017	1450.11	1445.53	NA	1447.29	1442.09	NA	1439.43	1447.75	1439.72	1442.64	1442.92	1445.84	1440.83
Average Depth to Water (from Top of Casing)	10.80	11.75	12.76	12.16	15.21	16.36	14.34	9.72	16.41	8.20	10.41	14.34	17.45
Average Elevation of Water (at Groundwater Surface)	1449.02	1445.49	1448.57	1447.03	1442.30	1441.80	1438.96	1448.22	1439.52	1442.34	1442.58	1445.16	1440.51
Minimum Depth to Water (from Top of casing)	8.42	9.83	9.41	9.63	11.38	15.75	13.07	9.39	14.86	7.29	9.11	11.42	16.32

All well elevations referenced to an on site benchmark with an assumed elevation of 1460.00

NI = Not Installed

NC = Not Collected

TABLE 2a
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI
MW-1

PARAMETER	ES	PAL	12/11/2012	3/5/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	5/4/2015	8/4/2015	2/22/2016	8/31/2016	2/14/2017	8/29/2017
Metals (ug/L)															
Arsenic	10	1	<0.50	<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	280	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.10	0.91 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Chromium	100	10	2	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent (mg/L)			<0.0017	<0.0034	NA	NA	NA	NA	NA	NA	NA	<0.0039	<0.026	<0.0051	<0.0051
Lead	15	1.5	<0.10	1.5 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.025	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	20	5.5	7.7 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	50	10	<2.0	<6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<0.13	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dis. Total Chromium (filtered)	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 ^J	<2.1	<2.5	<2.5
Dissolved Iron (filtered)	300	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	26.9 ^J	30.6 ^J	20.6 ^J	<15.5
Dissolved Manganese (filtered)	300	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.8	1.9 ^J	2.8 ^J	2.3 ^J
Dissolved Nickel (filtered)	100	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	98.8	93	66.7	60.9
Nitrate Nitrogen (mg/L)	10	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2	5.1	5.0	6.0
Sulfate (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	23.8	23	21.5	18.2
Field Measurements															
Temperature (°F)			NA	NA	56.26	57.11	44.14	49.97	58.55	45.98	56.33	47.80	60.25	47.73	60.61
Conductivity (ms/cm)			NA	NA	1803	2370	2680	2305	1922	1747	1146	1205	1006	1135	793
Dissolved Oxygen (mg/L)			NA	NA	4.22	1.03	2.71	3.35	2.19	2.01	2.86	2.93	3.95	3.79	6.41
pH			NA	NA	6.45	6.9	6.19	7.08	7.51	7.12	7.58	7.76	7.93	7.21	7.53
Redox Potential (mV)			NA	NA	139.4	24.1	244.6	-8.9	-70.5	97.5	59.7	245.0	30.4	180.1	54.9

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD = Exceeds Enforcement Standard

Italic = Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TABLE 2b
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI
MW-2

PARAMETER	ES	PAL	12/11/2012	3/5/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	5/4/2015	8/4/2015	2/22/2016	8/31/2016	2/14/2017	8/29/2017
Metals (ug/L)															
Arsenic	10	1	<0.50	<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	180	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.10	0.40 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Chromium	100	10	1.4	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent (mg/L)			<0.0017	<0.0034	NA	NA	NA	NA	NA	NA	NA	<0.039	<0.13	<0.051	<0.26
Lead	15	1.5	<0.10	1.3 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.025	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	20	9.0	4.5 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	50	10	<2.0	<6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<0.13	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dis. Total Chromium (filtered)	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.1	<2.1	<2.5	<2.5
Dissolved Iron (filtered)	300	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	28.7 ^J	41.9 ^J	60.5 ^J	<15.5
Dissolved Manganese (filtered)	300	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	72.5	72.2	46.9	136
Dissolved Nickel (filtered)	100	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.2	10.3	10 ^J	8.1 ^J
Nitrate Nitrogen (mg/L)	10	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.7	23.1	15.7	22.9
Sulfate (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.6	27.8	20.3	16.3
Field Measurements															
Temperature (°F)			NA	NA	58.47	57.95	46.8	44.95	56.7	44.08	56.13	47.83	62.47	49.06	61.07
Conductivity (ms/cm)			NA	NA	458	459	1053	115	154	1052	161	798	212	589	40
Dissolved Oxygen (mg/L)			NA	NA	6.44	3.77	5.66	3.81	4.46	10.75	5.56	2.87	2.63	3.05	3.83
pH			NA	NA	5.74	6.87	5.65	7.17	7.82	6.94	7.32	6.25	6.93	5.75	7.64
Redox Potential (mV)			NA	NA	112.0	-32.7	230.1	45.8	-9.8	138.8	81.3	217.6	96.9	195.1	72.0

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
<i>Italic</i>	= Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TABLE 2c
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI

MW-3

PARAMETER	ES	PAL	12/11/2012	3/5/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	11/5/2014	2/10/2015	5/4/2015
Metals (ug/L)												
Arsenic	10	1	<0.50	<4.4	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	25	57.2	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.10	<0.38	NA	NA	NA	NA	NA	NA	NA	NA
Dis. Total Chromium (filtered)	100	10	2.2	<1.2	<1.2	<1.2	<1.2	<2.1	<2.1	<2.1	<2.1	<2.1
Total Chromium (unfiltered)	100	10	NA	NA	35.1	58.8	41.4	34.7	16.1	71.5	47.7	100
Chromium, Hexavalent (mg/L)			<0.0017	<0.0034	<0.0034	<0.0034	<0.034	<0.0039	<0.0097	<0.019	<0.039	<0.019
Lead	15	1.5	<0.10	2.2 ^J	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.025	<0.10	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Nickel (filtered)	100	20	1.4	1.5 ^J	24.7	1.8 ^J	<0.75	3.4 ^J	1.8 ^J	1.9 ^J	<1.4	<1.4
Nickel (Unfiltered)	100	20	NA	NA	1.4 ^J	47.9	30.5	25.6	12.8	55.4	38.8	70.6
Selenium	50	10	<2.0	<6.6	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<0.13	<1.4	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Manganese (filtered)	300	60	NA	NA	2.1 ^J	2.0 ^J	2.3 ^J	2.1 ^J	<1.4	1.8 ^J	1.9 ^J	<1.4
Manganese (unfiltered)	300	60	NA	NA	881	1,130	845	493	216	945	743	1,230
Dissolved Total Iron (filtered)	300	150	NA	NA	68.9 ^J	28.6 ^J	22.8 ^J	<12.9	16.9 ^J	28.8 ^J	18.4 ^J	<12.9
Total Iron (unfiltered)	300	150	NA	NA	26,200	42,900	29,500	26,300	10,900	55,700	38,500	75,300
Nitrate Nitrogen (mg/L)	10	2	NA	NA	2.3	3.1	3.4	5	2.1	2.2 ^J	2.8	3.2
Sulfate (mg/L)	250	125	NA	NA	8.4	6.7	10.3	9.6	10.7	21.3 ^J	12.8 ^J	<10.0
Field Measurements												
Temperature (°F)			NA	NA	52.73	54.12	48.23	47.91	53.76	53.53	47.85	45.38
Conductivity (ms/cm)			NA	NA	162	221	267	301	216	194	193	203
Dissolved Oxygen (mg/L)			NA	NA	7.63	5.33	8.04	4.73	3.81	6.99	7.66	9.2
pH			NA	NA	6.43	7.41	5.67	6.22	6.83	6.36	6.77	6.46
Redox Potential (mV)			NA	NA	90.6	11.2	273.6	77.2	52.2	121	158.2	188.5

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD = Exceeds Enforcement Standard

Italic = Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TABLE 2d
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI
MW-4

PARAMETER	ES	PAL	12/11/2012	3/5/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	5/4/2015	8/4/2015	8/31/2016	2/14/2017	8/29/2017
Metals (ug/L)														
Arsenic	10	1	<0.50	<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	45	29.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.10	<0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Chromium (dissolved)	100	10	3.4	1.5 ^J	NA	NA	NA	NA	NA	NA	NA	<2.1	<2.5	<2.5
Chromium, Hexavalent (mg/L)			<0.0017	<0.0034	NA	NA	NA	NA	NA	NA	NA	<0.0051	<0.0051	<0.0051
Lead	15	1.5	<0.10	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.025	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	100	20	6.8	3.5 ^J	NA	NA	NA	NA	NA	NA	NA	<1.4	<1.9	<1.9
Selenium	50	10	<2.0	<6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<0.13	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (dissolved)	300	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.4	<1.1	<1.1
Dissolved Iron (filtered)	300	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<15.5	<15.5
Nitrate Nitrogen (mg/L)	10	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.1	2.8	3.5
Sulfate (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.9 ^J	10.3 ^J	8.5
Field Measurements														
Temperature (°F)			NA	NA	53.04	54.38	49.93	47.78	54.59	47.22	52.74	55.41	49.55	53.89
Conductivity (ms/cm)			NA	NA	3.71	3.74	4.23	3.81	2.35	3.51	3.20	3.80	4.12	3.90
Dissolved Oxygen (mg/L)			NA	NA	4.74	6.02	5.29	1.24	3.21	4.91	6.31	4.15	2.48	2.80
pH			NA	NA	7.19	7.69	6.4	8.05	8.19	7.22	7.38	7.95	7.16	7.54
Redox Potential (mV)			NA	NA	-27.2	-43.8	200.0	-7.2	-24.1	159.1	92.5	49.3	177.1	40.0

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
<i>Italic</i>	= Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TABLE 2c
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI

PARAMETER	ES	PAL	12/11/2012	1/3/2013	3/5/2013	5/8/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	11/5/2014	2/10/2015	5/4/2015	8/4/2015	11/3/2015	2/22/2016	2/14/2017	8/29/2017
Metals (ug/L)																			
Arsenic	10	1	<0.50	<4.7	<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	110	138	686	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.10	<0.39	1.8 ^J	18.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dis. Total Chromium (filtered)	100	10	430	414	359	49.2	174	254	458	188	360	340	330	317	351	381	351	321	365
Total Chromium (unfiltered)	100	10	NA	NA	NA	NA	1,130	1,540	1,680	1,700	1,380	1,770	1,010	1,090	1,970	1,530	NA	NA	NA
Chromium, Hexavalent (mg/L)			0.59	0.46	0.33	<0.86	0.26	0.34	0.31 ^J	0.39	0.24	0.28	0.27	0.33	0.25	0.093 ^J	<0.097	0.28	0.22 ^J
Lead	15	1.5	<0.10	<1.4	2.5 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.025	<0.10	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Nickel (filtered)	100	20	440	787	6,230	1,420	1,090	368	295	3,870	267	236	303	1,160	379	378	462	593	922
Nickel (Unfiltered)	100	20	NA	NA	NA	NA	974	1,220	1,120	1,920	952	1,160	977	1,660	1,520	1,280	NA	NA	NA
Selenium	50	10	<2.0	<5.8	<6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<0.13	<2.3	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Iron (filtered)	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.9	21.4 ^J	<15.5
Dissolved Manganese (filtered)	300	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.5	5.3	11
Nitrate Nitrogen (mg/L)	10	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3	4.4	5.0
Sulfate (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.1	24.1	24.4
Field Measurements																			
Temperature (°F)			NA	NA	NA	NA	55.26	57.59	50.02	47.71	55.12	54.57	49.94	46.65	53.67	57.27	49.82	51.68	55.42
Conductivity (ms/cm)			NA	NA	NA	NA	1498	1753	1215	3866	1996	1456	818	2,377	941	621	491	878	1,009
Dissolved Oxygen (mg/L)			NA	NA	NA	NA	5.03	4.53	6.76	3.89	2.92	5.35	7.02	9.18	6.03	4.57	6.27	5.56	6.61
pH			NA	NA	NA	NA	5.02	6.94	5.15	5.63	6.01	5.95	6.25	6.21	6.87	6.25	6.60	6.44	6.69
Redox Potential (mV)			NA	NA	NA	NA	185.2	-11.4	227.1	127.6	61.1	144.3	160	147.8	134	294.7	224.2	182.1	120.0

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
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NA - Not Analyzed

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J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TABLE 2f
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI

PARAMETER	ES	PAL	MW-6															
			3/5/2013	5/8/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	11/5/2014	2/10/2015	5/4/2015	8/4/2015	11/3/2015	2/22/2016	8/31/2016	2/14/2017	8/29/2017
Metals (ug/L)																		
Arsenic	10	1	<4.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	225	112	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<i>1.6^J</i>	<i>0.87^J</i>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dis. Total Chromium (filtered)	100	10	323	146	337	602	858	844	6,230	19,900	14,300	1,920	2,510	3,160	6,960	7,770	6,030	5,800
Total Chromium (unfiltered)	100	10	NA	NA	3,160	4,550	2,840	4,290	8,910	21,800	16,000	6,210	8,500	7,250	NA	NA	NA	NA
Chromium, Hexavalent (mg/L)			0.14	<0.086	<0.0034	0.58	0.66	1.1	5.9	21.7	13.9	2.2	2.6	3.5	6.8	7.4	7.0	7.3
Lead	15	1.5	<i>2.5^J</i>	2.2 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<i>0.28</i>	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Nickel (filtered)	100	20	14,100	9,820	16,700	10,900	6,460	6,870	17,500	23,800	19,000	2,480	3,400	3,720	8,810	10,100	5,720	4,140
Nickel (Unfiltered)	100	20	NA	NA	14,300	11,100	6,010	7,360	17,600	22,900	18,200	3,700	4,960	5,130	NA	NA	NA	NA
Selenium	50	10	<5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Manganese (filtered)	300	60	NA	NA	1,090	982	690	783	NA	954	974	645	703	597	669	781	767	922
Manganese (unfiltered)	300	60	NA	NA	1,340	1,690	1,120	1,390	1,720	1,380	1,880	1,350	2,140	1,150	NA	NA	NA	NA
Dissolved Iron (filtered)	300	150	NA	NA	<14.0	<14.0	<14	<12.9	<12.9	<12.9	<12.9	<12.9	<12.9	<12.9	<12.9	<12.9	<15.5	<15.5
Iron (unfiltered)	300	150	NA	NA	22,300	34,600	26,600	32,600	31,600	25,400	52,000	38,000	75,600	28,600	NA	NA	NA	NA
Nitrate Nitrogen (mg/L)	10	2	NA	NA	14.3	16.1	11.6	10.9	12	12.2	11.8	7.9	6.8	9.2	8.4	11.1	10.9	6.7
Sulfate (mg/L)	250	125	NA	NA	204	208	194	195	266	274	288	209	211	217	256	236	269	251
Field Measurements																		
Temperature (°F)			NA	NA	57.42	58.27	55.93	51.79	57.88	56.83	54.18	53.71	56.97	58.6	55.96	58.41	56.07	57.06
Conductivity (ms/cm)			NA	NA	1203	1209	1419	1200	1254	1167	1077	1188	1171	1244	1124	1269	1139	1241
Dissolved Oxygen (mg/L)			NA	NA	0.72	1.07	1.31	0.79	0.89	0.36	0.36	0.52	0.74	0.03	0.36	0.13	0.33	0.80
pH			NA	NA	6.09	7.63	5.49	6.79	7.15	6.87	6.84	6.82	7.2	6.91	7.13	7.21	6.81	6.95
Redox Potential (mV)			NA	NA	167.7	-7.5	196	40.4	114.6	176.2	198	197.6	148.6	290.3	261.5	147.3	196.9	118.8

PAL = Preventive Action Limit

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BOLD = Exceeds Enforcement Standard

Italic = Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TABLE 2g

GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI

MW-7

PARAMETER	ES	PAL	1/3/2013	3/5/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	11/5/2014	2/10/2015	5/4/2015	8/4/2015	11/3/2015	2/22/2016	8/31/2016	2/14/2017	8/29/2017
Metals (ug/L)																		
Arsenic	10	1	<4.7	<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	841	661	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.39	0.58 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Chromium	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dis. Total Chromium (filtered)	100	10	<2.4	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.2 ^J	<2.1	<2.5	5.2 ^J
Chromium, Hexavalent (mg/L)			<0.0039	<0.0034	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.039	<0.026	<0.026	<0.51
Lead	15	1.5	<1.4	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.10	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	20	6.1 ^J	4.3 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	50	10	<5.8	<6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<2.3	2.0 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Iron (filtered)	300	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.9	<12.9	<15.5	90.6 ^J
Dissolved Manganese (filtered)	300	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8 ^J	<1.4	<1.1	3.5 ^J
Dissolved Nickel (filtered)	100	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 ^J	1.8 ^J	<1.9 ^J	<1.9
Nitrate Nitrogen (mg/L)	10	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2	3.4	3.8	2.8
Sulfate (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.8	42.4	36.7	35.0
Field Measurements																		
Temperature (°F)			NA	NA	52.35	53.45	48.45	47.88	53.67	52.87	47.82	46.41	52.43	53.88	48.61	53.82	48.65	54.25
Conductivity (ms/cm)			NA	NA	4130	2795	4908	3054	4771	3358	2708	4173	4047	2571	2447	4913	3095	1730
Dissolved Oxygen (mg/L)			NA	NA	5.21	4.62	5.83	5.97	3.71	4.99	7.9	9.51	8.41	7.61	7.50	7.89	9.66	9.46
pH			NA	NA	6.11	7.44	6.31	6.34	6.77	6.83	7.08	6.69	7.64	6.71	7.45	7.24	7.09	7.37
Redox Potential (mV)			NA	NA	135.1	-37.3	278.2	56.7	20.2	102.5	130.7	139.9	95.4	272.8	202.8	91.6	143.5	64.4

PAL = Preventive Action Limit

ES = Enforcement Standards

= Exceeds Enforcement Standard

BOLD*Italic*

= Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TABLE 2b
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI

PARAMETER	ES	PAL	MW-8																
			2/19/2013	3/5/2013	5/8/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	11/5/2014	2/10/2015	5/4/2015	8/4/2015	11/2/2015	2/22/2016	8/31/2016	2/14/2017	8/29/2017
Metals (ug/L)																			
Arsenic	10	1	<4.4	<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	50.5	39.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.38	<0.38	0.47 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dis. Total Chromium (filtered)	100	10	537	507	1,540	2,630	2,570	1,550	2,030	3,320	1,910	1,850	1,020	1,060	776	1,270	488	426	470
Total Chromium (unfiltered)	100	10	NA	NA	NA	2,610	2,700	1,910	2,220	3,420	2,110	2,110	1,330	1,580	986	NA	NA	NA	NA
Chromium, Hexavalent (mg/L)			0.53	0.46	1.1	2.7	2.7	1.8	1.8	3.3	1.8	1.6	0.98	1.1	0.76	1.1	0.49	0.42	0.53
Lead	15	1.5	<1.2	1.5 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.10	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Nickel (filtered)	100	20	278	546	1,060	1,720	1,510	605	1,710	3,420	1,920	1,010	1,530	1,450	1,770	1,460	1,400	1,040	1,750
Nickel (Unfiltered)	100	20	NA	NA	NA	1,860	1,860	1,190	2,070	3,700	2,300	1,980	1,900	1,930	1,920	NA	NA	NA	NA
Selenium	50	10	<6.6	<6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<1.4	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Iron (filtered)	300	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	65.0 ^J	<12.9	<15.5	<15.5
Dissolved Manganese (filtered)	300	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	160	105	37.2	38.2
Nitrate Nitrogen (mg/L)	10	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.5	6.6	14.7	12.1
Sulfate (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.9	<10.0	9.1 ^J	8.8 ^J
Field Measurements																			
Temperature (°F)			NA	NA	NA	59.35	57.67	51	54.9	60.92	57.19	51.46	52.5	60.51	59.48	49.76	63.53	50.87	60.50
Conductivity (ms/cm)			NA	NA	NA	474	330	234	255	398	255	188	271	234	243	138	223	239	695
Dissolved Oxygen (mg/L)			NA	NA	NA	3.58	3.29	3.29	1.2	1.05	3.56	4.09	5.76	4.08	3.45	4.82	3.46	7.63	3.66
pH			NA	NA	NA	5.75	6.19	5.14	5.51	5.52	5.65	5.86	5.71	6.63	5.72	6.28	6.38	6.37	6.15
Redox Potential (mV)			NA	NA	NA	160.9	72.4	235.5	148.1	129.8	148.4	181.8	186.7	145.1	318.8	248.7	141.3	206.7	167.9

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J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TABLE 2i
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI

PARAMETER	ES	PAL	2/19/2013	3/5/2013	5/8/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	11/5/2014	2/10/2015	5/4/2015	8/4/2015	11/3/2015	2/22/2016	8/31/2016	2/14/2017	8/29/2017
MW-9																			
Metals (ug/L)																			
Arsenic	10	1	<4.4	<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	214	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	0.63 ^J	15.0	3.0 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dis. Total Chromium (filtered)	100	10	2,160	862	499	539	1,120	2,580	279	2,770	545	682	1,000	679	905	938	361	1,270	366
Total Chromium (unfiltered)	100	10	NA	NA	NA	1,190	1,520	6,000	1,350	2,370	1,720	621	1,060	1,450	1,480	NA	NA	NA	NA
Chromium, Hexavalent (mg/L)			2.3	0.85	<0.086	0.51	2.7	3.4	0.27	1.6	0.56	0.49	0.63	0.6	0.92	0.86	0.4	1.1	0.36 ^J
Lead	15	1.5	3.1 ^J	4.8 ^J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.10	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Nickel (filtered)	100	20	65.8	17.8	1,790	647	273	190	1,290	292	280	1,020	656	279	298	173	229	222	423
Nickel (Unfiltered)	100	20	NA	NA	NA	723	370	762	1,430	366	582	1,100	756	534	519	NA	NA	NA	NA
Selenium	50	10	<6.6	<6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<1.4	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Manganese (filtered)	300	60	NA	NA	NA	182	152	261	334	87.4	92.9	311	524	223	287	130	134	124	198
Manganese (unfiltered)	300	60	NA	NA	NA	1,020	554	5,190	1,420	518	2,050	550	1,220	1,930	1,750	NA	NA	NA	NA
Dissolved Iron (filtered)	300	150	NA	NA	NA	16.4 ^J	38.1 ^J	25.9 ^J	28.2 ^J	16.4 ^J	37.9 ^J	31.0 ^J	<12.9	<12.9	<12.9	<12.9	<12.9	<15.5	<15.5
Iron (unfiltered)	300	150	NA	NA	NA	37,900	15,600	194,000	62,200	20,100	102,000	11,100	40,500	91,400	136,000	NA	NA	NA	NA
Nitrate Nitrogen (mg/L)	10	2	NA	NA	NA	11.2	9.9	12	8.4	7.7	8.2	28.9	22.4	11.9	12.3	8.7	6.9	9.4	8.6
Sulfate (mg/L)	250	125	NA	NA	NA	85.8	147	161	79.6	91.9	77.8	1,010	614	113	85	63.6	50.1	56.9	65.4
Field Measurements																			
Temperature (°F)			NA	NA	NA	53.27	55.25	50.41	51.48	53.67	53.46	50.01	48.83	53.18	55.77	48.75	55.18	50.79	55.35
Conductivity (ms/cm)			NA	NA	NA	3,254	2,045	2,602	6,191	2,984	1,982	3,304	4,095	2,088	1,834	1,880	1,481	1,932	2,064
Dissolved Oxygen (mg/L)			NA	NA	NA	1.18	1.81	6.90	3.98	2.61	0.53	5.16	2.44	2.02	0.17	0.52	0.17	5.81	6.50
pH			NA	NA	NA	6.25	7.44	4.75	5.45	6.31	6.82	5.98	6.63	6.89	6.6	7.24	7.2	6.18	6.52
Redox Potential (mV)			NA	NA	NA	156.1	2.6	237.6	119.8	52.1	155.6	198.5	198.2	175.9	289.7	262.7	122.5	200.5	150.6

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD = Exceeds Enforcement Standard

Italic = Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

* - J qualifier, estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TABLE 2j
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI
MW-10

Laboratory	ES		PAL	Pace	NLS	8/12/2013	Pace	11/12/2013	NLS	2/12/2014	Pace	2/12/2014	NLS	6/2/2014	Pace	6/2/2014	NLS	8/5/2014	Pace	8/5/2014	NLS	11/5/2014	Pace	11/5/2014	NLS	2/10/2015	Pace	2/5/2015	5/4/2015	NLS	8/4/2015	Pace	8/4/2015	NLS	11/3/2015	Pace	11/3/2015	NLS	2/22/2016	Pace	2/22/2016	NLS	8/31/2016	Pace	2/14/2017	NLS	8/29/2017	Pace	8/29/2017	NLS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	PARAMETER	Metals (ug/L)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Arsenic	10	1		<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

PAL = Preventive Action Limit
ES = Enforcement Standards
= Exceeds Enforcement Standard
= Exceeds Preventative Action Limit
BOLD
Italic
NA = Not Analyzed
< - Concentration less than listed detection limit
J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
Pace = Lab analysis conducted by Pace Analytical Services
NLS = Lab analysis conducted by Northern Lake Service
Values in brackets are NLS version of "J" qualifier

TABLE 2k
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI
MW-11

PARAMETER	ES	PAL	Pace	NLS	7/15/2013	8/12/2013	11/12/2013	Pace	NLS	2/12/2014	Pace	6/2/2014	NLS	8/5/2014	Pace	NLS	2/10/2015	Pace	NLS	5/4/2015	Pace	NLS	8/4/2015	Pace	NLS	11/3/2015	Pace	NLS	2/22/2016	Pace	NLS	8/31/2016	Pace	NLS	2/14/2017	Pace	8/29/2017	NLS
Metals (ug/L)																																						
Arsenic	10	1	<4.4	<0.5			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	331	320			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.38	<0.1			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dis, Total Chromium (filtered)	100	10	<1.2	<0.5	<1.2	<1.2	[0.68]	<1.2	<1.0	<1.2	<2.1	<0.5	<0.5	<2.1	<0.5	[0.75]	<2.1	<2.1	<0.5	<2.1	<0.5	<2.1	<0.5	<2.1	<0.5	<2.1	<2.1	<0.5	<2.1	<2.1	<0.5	<2.1	<2.1	<0.67	<2.5	<2.5	<0.50	
Total Chromium (unfiltered)	100	10	NA	NA	120	150	150	150	110	46.8	63.1	90	90	54.1	60	80.1	36	37.4	78	80.1	74	36	37.6	36	7.4	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent (mg/L)			<0.0086	<1.7	<0.0034	<0.017	<0.0017	<0.0017	[0.0017]	<0.034	<0.034	<0.019	<0.0017	<0.0017	<0.019	<0.0017	<0.0023	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.0011	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.026	[0.0025]	<0.026	<0.026	<0.0011		
Lead	15	1.5	4.6 ^J	<0.1			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury	2	0.2	<0.10	<0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dissolved Nickel (filtered)	100	20	2.3 ^J	2	1.1 ^J	1.1 ^J	[1.4]	<0.75	<1.0	<0.75	<1.4	1.3	53	25.1	<1.4	<1.3	<1.4	<1.4	[0.52]	<1.4	<1.4	<1.3	<1.4	<1.3	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	[0.53]	
Nickel (Unfiltered)	100	20	NA	NA	82.4	106.0	106.0	75	42.3	32.2	42.3	[0.69]	59	53	25.1	36	24.8	36	6.5	6.5	6.5	25	25	25	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Selenium	50	10	<6.6	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Silver	50	10	<1.4	<0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dissolved Iron (filtered)	300	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dissolved Manganese (filtered)	300	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nitrate Nitrogen (mg/L)	10	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfate (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Field Measurements																																						
Temperature (°F)			NA	NA	58.01	57.33	57.33	48.49	44.33	55.7	55.98	48.01	44.09	44.09	56.89	59.4	47.24	47.24	62.04	62.04	50.95	50.95	50.95	59.4	59.4	59.4	708	708	829	829	659	659	829	829	688	688		
Conductivity (ms/cm)			NA	NA	883	738	738	749	411	935	613	692	618	618	619	586	708	708	659	659	829	829	829	586	586	586	708	708	829	829	659	659	829	829	688	688		
Dissolved Oxygen (mg/L)			NA	NA	3.16	2.28	2.28	2.71	1.27	1.01	0.58	0.78	2.08	2.08	1.01	0.46	0.75	0.75	0.78	0.78	0.42	0.42	0.42	0.46	0.46	0.46	0.75	0.75	0.75	0.3	0.3	0.42	0.42	2.01	2.01			
pH			NA	NA	6.10	7.03	7.03	5.55	5.58	6.43	6.17	6.29	6.06	6.06	6.1	6.35	6.37	6.37	6.35	6.35	6.1	6.35	6.35	6.35	6.1	6.1	6.1	6.37	6.37	6.37	6.35	6.35	6.35	6.1	6.1	6.34	6.34	
Redox Potential (mV)			NA	NA	109.1	3.1	3.1	247.8	102.1	-7.4	111.1	184.4	134.1	134.1	271.6	271.6	274.1	274.1	120.5	120.5	160.6	160.6	160.6	271.6	271.6	271.6	274.1	274.1	274.1	120.5	120.5	160.6	160.6	80.4	80.4			

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
<i>Italic</i>	= Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

J = qualifier, estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

Pace = Lab analysis conducted by Pace Analytical Services

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Values in brackets are NLS version of "J" qualifier

TABLE 21
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI

PARAMETER	ES	PAL	7/15/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	5/4/2015	8/4/2015	2/22/2016	8/31/2016	2/14/2017	8/29/2017
Metals (ug/L)														
Arsenic	10	1	<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	195	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Chromium	100	10	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.5	<2.5
Lead	15	1.5	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	20	1.4*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	50	10	<6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent (mg/L)			<0.086	NA	NA	NA	NA	NA	NA	NA	<0.019	<0.026	<0.026	<0.051
Dis. Total Chromium (filtered)	100	10	NA	NA	NA	NA	NA	NA	NA	NA	<2.1	<2.1	<2.1	<2.5
Dissolved Iron (filtered)	300	150	NA	NA	NA	NA	NA	NA	NA	NA	<12.9	<12.9	16.9 ^j	<15.5
Dissolved Manganese (filtered)	300	60	NA	NA	NA	NA	NA	NA	NA	NA	<1.4	<1.4	<1.5 ^j	1.7 ^j
Dissolved Nickel (filtered)	100	20	NA	NA	NA	NA	NA	NA	NA	NA	<1.4	<1.4	<1.9	<1.9
Nitrate Nitrogen (mg/L)	10	2	NA	NA	NA	NA	NA	NA	NA	NA	6.8	5.3	7.8	5.1
Sulfate (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	18.8	16.1 ^j	35.8	17.3
Field Measurements														
Temperature (°F)			NA	55.10	55.75	49.27	47.64	57.55	44.08	54.62	48.99	57.53	49.73	58.2
Conductivity (ms/cm)			NA	1277	1451	1898	1234	752	1052	1499	2102	1677	5640	1498
Dissolved Oxygen (mg/L)			NA	6.80	6.11	3.75	5.46	3.32	10.75	8.52	9.77	6.15	9.61	7.86
pH			NA	4.98	6.81	6.16	6.37	6.62	6.94	7.65	7.45	7.01	6.72	6.98
Redox Potential (mV)			NA	170.3	-11.40	259.80	36.7	31.2	138.8	105.4	234.2	96.4	174.5	84.8

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NA - Not Analyzed

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TABLE 2m
GROUNDWATER ANALYTICAL RESULTS SUMMARY
PHILLIPS PLATING CORPORATION
984 N. LAKE AVENUE, PHILLIPS, WI

PARAMETER	ES	PAL	7/15/2013	8/12/2013	11/12/2013	2/12/2014	6/2/2014	8/5/2014	11/5/2014	2/10/2015	5/4/2015	8/4/2015	11/3/2015	2/22/2016	8/31/2016	2/14/2017	8/29/2017
PZI																	
Metals (ug/L)																	
Arsenic	10	1	<4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2000	400	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	0.5	<0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dis. Total Chromium (filtered)	100	10	5,980	1,590	810	1,310	652	1,640	1,090	1,950	1,420	1,220	1,470	1,740	1,650	1,730	1,480
Total Chromium (unfiltered)	100	10	NA	2,910	1,610	1,490	1,520	1,760	2,040	2,040	1,660	2,130	2,790	NA	NA	NA	NA
Chromium, Hexavalent (mg/L)			5.6	1.6	1.0	1.1	0.41	1.60	1	2	2	1	1.7	1.9	1.9	1.9	1.1
Lead	15	1.5	2.9*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	0.2	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Nickel (filtered)	100	20	4.8	4.1 ¹	3.5 ¹	3.8 ¹	3.1 ¹	2.9 ¹	2.4 ¹	3.9 ¹	2.0 ¹	2.1 ¹	2.1 ¹	1.7 ¹	2.0 ¹	3.7 ¹	<1.9
Nickel (Unfiltered)	100	20	NA	269	108	24.8	87	14.9	81.2	18.1	15	73.2	108	NA	NA	NA	NA
Selenium	50	10	<6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	10	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Manganese (filtered)	300	60	NA	124	154	61.5	45	14.9	102	5.0 ¹	9.7	22	28.9	16.6	11.1	19.5	15.7
Manganese (unfiltered)	300	60	NA	4,400	1,900	362	1,320	179	1,220	223	216	1,210	1,590	NA	NA	NA	NA
Dissolved Iron (filtered)	300	150	NA	<14.0	<14.0	<14.0	<12.9	<12.9	<12.9	<12.9	<12.9	<12.9	<12.9	<12.9	<12.9	<15.5	<15.5
Iron (unfiltered)	300	150	NA	301,000	99,600	27,700	104,000	14,900	103,000	16,100	15,700	95,300	74,500	NA	NA	NA	NA
Nitrate Nitrogen (mg/L)	10	2	NA	4.3	3.4	3.9	3.1	3.8	3.4	4.2	4	3.8	4.3	4.3	3.8	4.1	4.0
Sulfate (mg/L)	250	125	NA	62.8	55.6	58.4	51.9	49.7	44.3	48.6	45.2	43.1	41.8	44.0	39.3	42.0	39.7
Field Measurements																	
Temperature (°F)			NA	56.79	58.5	55.4	55.31	56.97	57.56	55.45	53.91	55.55	57.92	54.77	57.6	54.58	58.02
Conductivity (ms/cm)			NA	6.14	595	681	784	747	585	554	548	548	549	515	526	565	444
Dissolved Oxygen (mg/L)			NA	0.61	2.55	4.72	0.38	1.07	0.72	2.51	2.37	1.21	0.16	2.01	0.67	1.07	2.04
pH			NA	6.45	7.79	5.98	7.3	7.62	7.28	7.46	7.38	7.2	7.3	7.62	7.71	7.07	7.28
Redox Potential (mV)			NA	141.1	-27.5	177.0	-11.3	-13.3	147.4	148	171.6	127.7	270.9	246.1	81.1	167.3	105.9

PAL = Preventive Action Limit

ES = Enforcement Standards

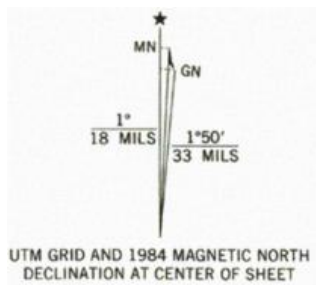
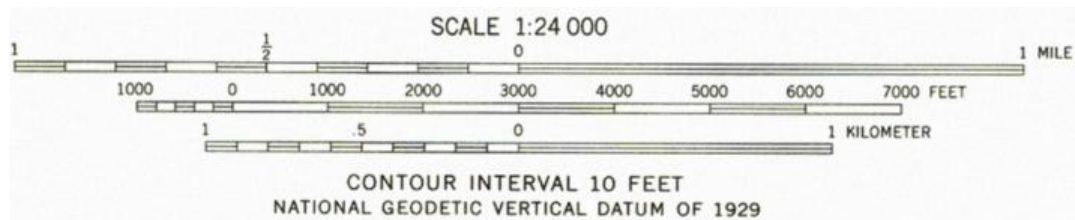
= Exceeds Enforcement Standard

= Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

* - J qualifier, estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.



PHILLIPS, WIS.
NW/4 PHILLIPS 15' QUADRANGLE
45090-F4-TF-024
1984
DMA 2975 III NW-SERIES V861



REI Engineering, INC.

PHILLIPS PLATING CORP.
984 N LAKE AVENUE
PHILLIPS, WISCONSIN

FIGURE 1 : SITE VICINITY MAP

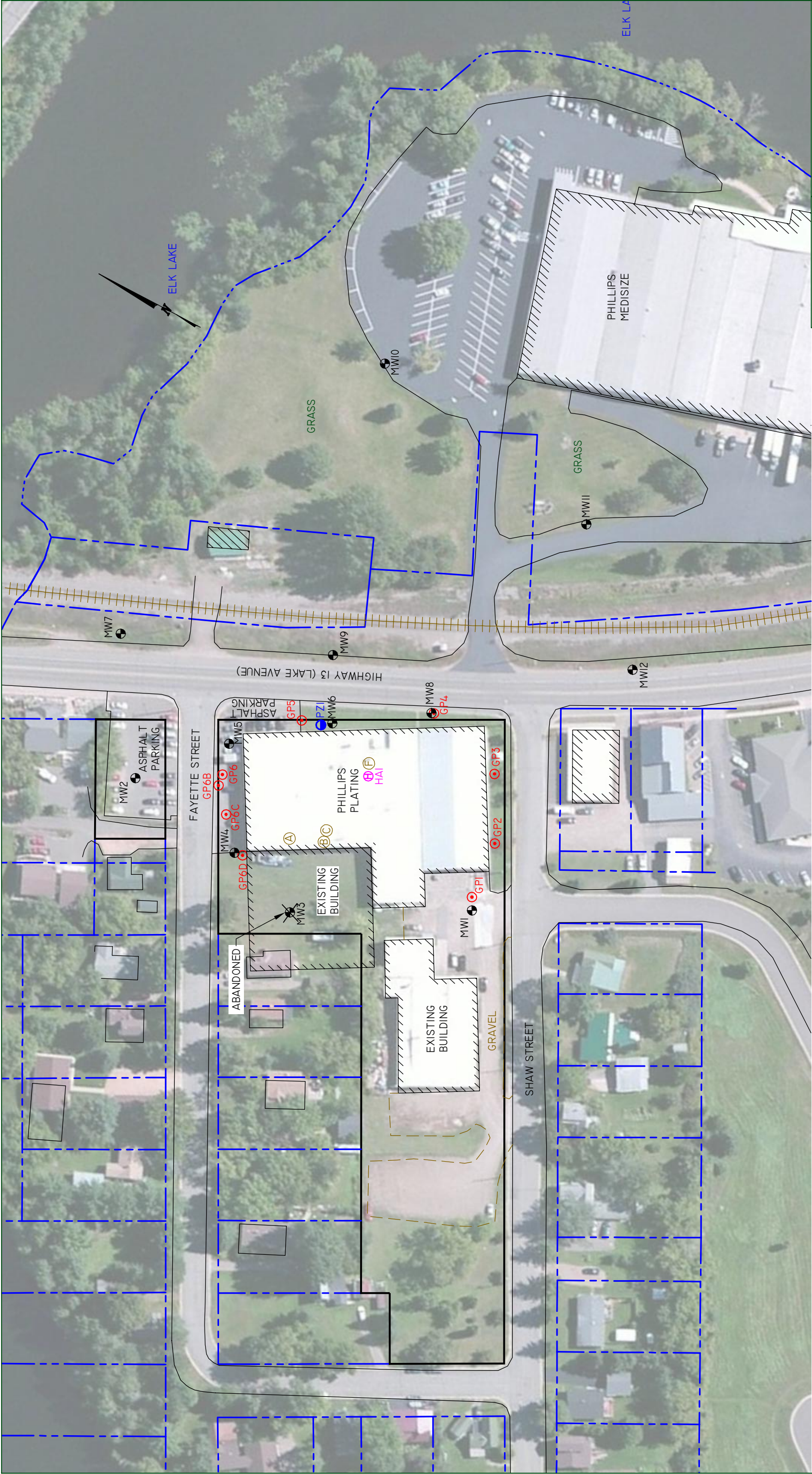
PROJECT NO.

6134B

DRAWN BY:
NAP

DATE:
12/13/12

DRAWING FILE: P:\6100-6199\6134B-PHILLIPS PLATING\DWG\6134B-VICN.DWG LAYOUT: VICINITY PLOTTED BY: NATHANP



SCALE

050100

0 50 100

GEOPROBE SOIL BORING

MONITORING WELL

HAND AUGER SOIL BORING

LEGEND

PIEZOMETER

PROPERTY BOUNDARY

PHILLIPS PLATING PROPERTY

550 GALLON SPILL CATCH TANK

5500 GALLON WASTE TREATMENT PROCESS TANK (STORAGE TANK)

1500 GALLON WASTE TREATMENT PROCESS TANK (WASTE TREATMENT COLLECTION TANK)

600 GALLON WASTE TREATMENT PROCESS TANK (PLATING LINE COLLECTION TANK)



PHILLIPS PLATING CORP.
984 N LAKE AVENUE
PHILLIPS, WISCONSIN

FIGURE 2 : SITE MAP

PROJECT No.
6134B

DRAWN BY:
JAF

DATE:
01/13/2017

REI Engineering, INC.



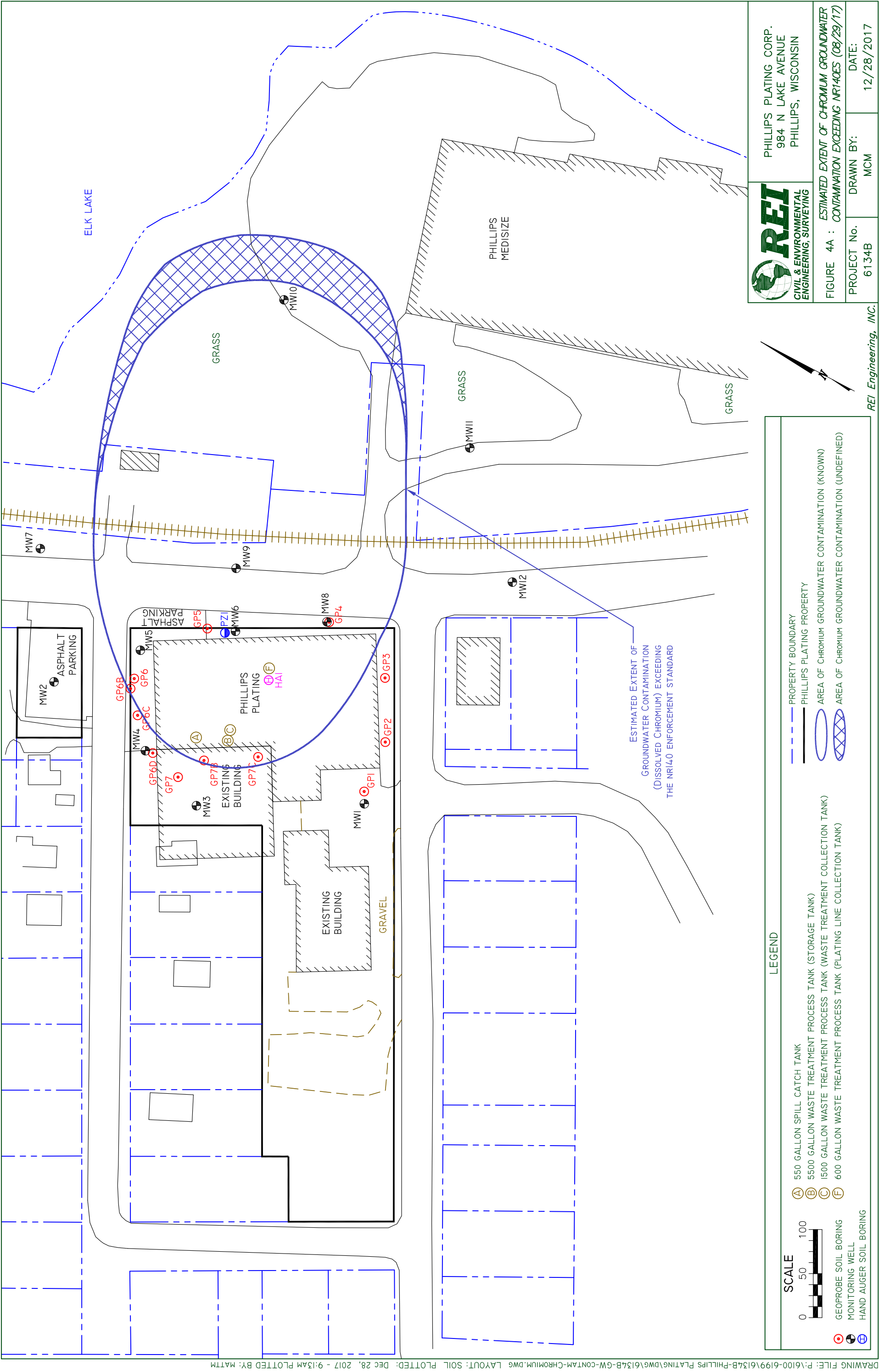
PROJECT No. 6134B	DRAWN BY: TAW
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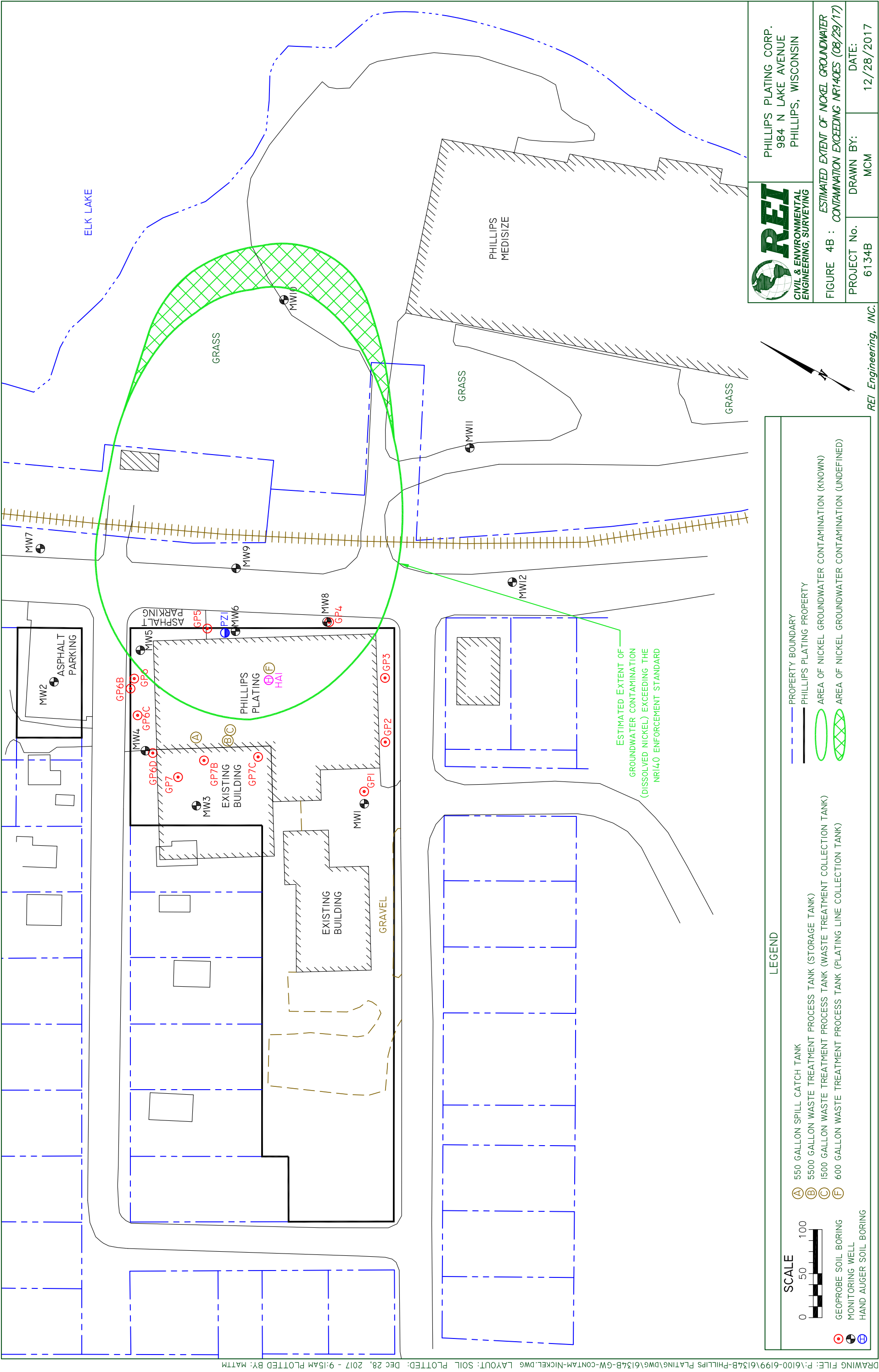
REI Engineering, INC.



PROJECT No. 6134B	DRAWN BY: TAW
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REI Engineering, INC.





February 28, 2017

Ken Lassa
REI
4080 North 20th Avenue
Wausau, WI 54401

RE: Project: 6134B PHILLIPS PLATING
Pace Project No.: 40145656

Dear Ken Lassa:

Enclosed are the analytical results for sample(s) received by the laboratory on February 15, 2017. 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,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

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

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SAMPLE SUMMARY

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40145656001	MW1	Water	02/14/17 08:45	02/15/17 09:00
40145656002	MW2	Water	02/14/17 09:30	02/15/17 09:00
40145656003	MW4	Water	02/14/17 09:50	02/15/17 09:00
40145656004	MW5	Water	02/14/17 10:15	02/15/17 09:00
40145656005	MW6	Water	02/14/17 12:15	02/15/17 09:00
40145656006	MW7	Water	02/14/17 09:20	02/15/17 09:00
40145656007	MW8	Water	02/14/17 10:30	02/15/17 09:00
40145656008	MW9	Water	02/14/17 11:30	02/15/17 09:00
40145656009	MW10	Water	02/14/17 11:10	02/15/17 09:00
40145656010	MW11	Water	02/14/17 10:50	02/15/17 09:00
40145656011	MW12	Water	02/14/17 09:00	02/15/17 09:00
40145656012	PZ1	Water	02/14/17 12:00	02/15/17 09:00

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SAMPLE ANALYTE COUNT

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40145656001	MW1	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40145656002	MW2	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40145656003	MW4	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40145656004	MW5	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40145656005	MW6	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40145656006	MW7	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40145656007	MW8	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40145656008	MW9	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40145656009	MW10	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40145656010	MW11	EPA 6010	DLB	4	PASI-G

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40145656011	MW12	SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
40145656012	PZ1	EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW1 Lab ID: 40145656001 Collected: 02/14/17 08:45 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		02/16/17 14:46	7440-47-3	
Iron, Dissolved	20.6J	ug/L	100	15.5	1		02/16/17 14:46	7439-89-6	
Manganese, Dissolved	2.8J	ug/L	5.0	1.1	1		02/16/17 14:46	7439-96-5	
Nickel, Dissolved	66.7	ug/L	10.0	1.9	1		02/16/17 14:46	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.0051	mg/L	0.017	0.0051	1		02/15/17 09:10		1q,H3
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	5.0	mg/L	1.1	0.38	5		02/16/17 11:24	14797-55-8	H5
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	21.5	mg/L	15.0	5.0	5		02/23/17 18:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW2 Lab ID: 40145656002 Collected: 02/14/17 09:30 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		02/16/17 14:48	7440-47-3	
Iron, Dissolved	60.5J	ug/L	100	15.5	1		02/16/17 14:48	7439-89-6	
Manganese, Dissolved	46.9	ug/L	5.0	1.1	1		02/16/17 14:48	7439-96-5	
Nickel, Dissolved	10J	ug/L	10.0	1.9	1		02/16/17 14:48	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.051	mg/L	0.17	0.051	10		02/15/17 09:10		1q,D3
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	15.7	mg/L	1.1	0.38	5		02/16/17 11:37	14797-55-8	H5
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	20.3	mg/L	15.0	5.0	5		02/23/17 20:04	14808-79-8	

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW4 Lab ID: 40145656003 Collected: 02/14/17 09:50 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		02/16/17 14:51	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		02/16/17 14:51	7439-89-6	
Manganese, Dissolved	<1.1	ug/L	5.0	1.1	1		02/16/17 14:51	7439-96-5	
Nickel, Dissolved	<1.9	ug/L	10.0	1.9	1		02/16/17 14:51	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.0051	mg/L	0.017	0.0051	1		02/15/17 09:10		1q
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	2.8	mg/L	0.22	0.075	1		02/15/17 14:45	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	10.3J	mg/L	15.0	5.0	5		02/23/17 20:16	14808-79-8	D3

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW5 Lab ID: 40145656004 Collected: 02/14/17 10:15 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	321	ug/L	10.0	2.5	1		02/16/17 14:53	7440-47-3	
Iron, Dissolved	21.4J	ug/L	100	15.5	1		02/16/17 14:53	7439-89-6	
Manganese, Dissolved	5.3	ug/L	5.0	1.1	1		02/16/17 14:53	7439-96-5	
Nickel, Dissolved	593	ug/L	10.0	1.9	1		02/16/17 14:53	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	0.28	mg/L	0.086	0.026	5		02/15/17 09:10		
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	4.4	mg/L	1.1	0.38	5		02/16/17 16:58	14797-55-8	H5
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	24.1	mg/L	15.0	5.0	5		02/23/17 20:29	14808-79-8	

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW6 Lab ID: 40145656005 Collected: 02/14/17 12:15 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	6030	ug/L	10.0	2.5	1		02/16/17 15:00	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		02/16/17 15:00	7439-89-6	
Manganese, Dissolved	767	ug/L	5.0	1.1	1		02/16/17 15:00	7439-96-5	
Nickel, Dissolved	5720	ug/L	10.0	1.9	1		02/16/17 15:00	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	7.0	mg/L	0.43	0.13	25		02/15/17 09:10		
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	10.9	mg/L	1.1	0.38	5		02/15/17 19:14	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	269	mg/L	30.0	10.0	10		02/23/17 20:41	14808-79-8	

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW7 Lab ID: 40145656006 Collected: 02/14/17 09:20 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		02/16/17 15:02	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		02/16/17 15:02	7439-89-6	
Manganese, Dissolved	<1.1	ug/L	5.0	1.1	1		02/16/17 15:02	7439-96-5	
Nickel, Dissolved	<1.9	ug/L	10.0	1.9	1		02/16/17 15:02	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.026	mg/L	0.086	0.026	5		02/15/17 09:10		1q,D3
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	3.8	mg/L	0.22	0.075	1		02/15/17 15:23	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	36.7	mg/L	15.0	5.0	5		02/23/17 20:54	14808-79-8	

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW8 Lab ID: 40145656007 Collected: 02/14/17 10:30 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	426	ug/L	10.0	2.5	1		02/16/17 15:05	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		02/16/17 15:05	7439-89-6	
Manganese, Dissolved	37.2	ug/L	5.0	1.1	1		02/16/17 15:05	7439-96-5	
Nickel, Dissolved	1040	ug/L	10.0	1.9	1		02/16/17 15:05	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	0.42	mg/L	0.17	0.051	10		02/15/17 09:10		
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	14.7	mg/L	1.1	0.38	5		02/15/17 19:27	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	9.1J	mg/L	15.0	5.0	5		02/23/17 21:06	14808-79-8	D3

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW9 Lab ID: 40145656008 Collected: 02/14/17 11:30 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	1270	ug/L	10.0	2.5	1		02/16/17 15:07	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		02/16/17 15:07	7439-89-6	
Manganese, Dissolved	124	ug/L	5.0	1.1	1		02/16/17 15:07	7439-96-5	
Nickel, Dissolved	222	ug/L	10.0	1.9	1		02/16/17 15:07	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	1.1	mg/L	0.17	0.051	10		02/15/17 09:10		
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	9.4	mg/L	1.1	0.38	5		02/15/17 19:39	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	56.9	mg/L	30.0	10.0	10		02/23/17 21:19	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW10 Lab ID: 40145656009 Collected: 02/14/17 11:10 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	652	ug/L	10.0	2.5	1		02/16/17 15:10	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		02/16/17 15:10	7439-89-6	
Manganese, Dissolved	6.8	ug/L	5.0	1.1	1		02/16/17 15:10	7439-96-5	
Nickel, Dissolved	229	ug/L	10.0	1.9	1		02/16/17 15:10	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	0.58	mg/L	0.086	0.026	5		02/15/17 09:10		
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	3.4	mg/L	0.22	0.075	1		02/15/17 16:38	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	44.9	mg/L	15.0	5.0	5		02/23/17 21:31	14808-79-8	

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW11 Lab ID: 40145656010 Collected: 02/14/17 10:50 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		02/17/17 13:15	7440-47-3	
Iron, Dissolved	266	ug/L	100	15.5	1		02/17/17 13:15	7439-89-6	B
Manganese, Dissolved	48.3	ug/L	5.0	1.1	1		02/17/17 13:15	7439-96-5	
Nickel, Dissolved	<1.9	ug/L	10.0	1.9	1		02/17/17 13:15	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.026	mg/L	0.086	0.026	5		02/15/17 09:10		1q,D3
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	5.2	mg/L	1.1	0.38	5		02/15/17 20:04	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	14.9J	mg/L	15.0	5.0	5		02/23/17 21:44	14808-79-8	D3

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: MW12 Lab ID: 40145656011 Collected: 02/14/17 09:00 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		02/17/17 13:22	7440-47-3	
Iron, Dissolved	16.9J	ug/L	100	15.5	1		02/17/17 13:22	7439-89-6	B
Manganese, Dissolved	1.5J	ug/L	5.0	1.1	1		02/17/17 13:22	7439-96-5	
Nickel, Dissolved	<1.9	ug/L	10.0	1.9	1		02/17/17 13:22	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.026	mg/L	0.086	0.026	5		02/15/17 09:10		1q,H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	7.8	mg/L	1.1	0.38	5		02/16/17 12:02	14797-55-8	H5
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	35.8	mg/L	15.0	5.0	5		02/23/17 22:34	14808-79-8	

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ANALYTICAL RESULTS

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Sample: PZ1 Lab ID: 40145656012 Collected: 02/14/17 12:00 Received: 02/15/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	1730	ug/L	10.0	2.5	1		02/17/17 13:25	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		02/17/17 13:25	7439-89-6	
Manganese, Dissolved	19.5	ug/L	5.0	1.1	1		02/17/17 13:25	7439-96-5	
Nickel, Dissolved	3.7J	ug/L	10.0	1.9	1		02/17/17 13:25	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	1.9	mg/L	0.17	0.051	10		02/15/17 09:10		
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	4.1	mg/L	1.1	0.38	5		02/15/17 20:17	14797-55-8	M0
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	42.0	mg/L	15.0	5.0	5		02/23/17 22:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6134B PHILLIPS PLATING
Pace Project No.: 40145656

QC Batch: 248487 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40145656001, 40145656002, 40145656003, 40145656004, 40145656005, 40145656006, 40145656007, 40145656008, 40145656009

METHOD BLANK: 1468290 Matrix: Water
Associated Lab Samples: 40145656001, 40145656002, 40145656003, 40145656004, 40145656005, 40145656006, 40145656007, 40145656008, 40145656009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.5	10.0	02/16/17 14:03	
Iron, Dissolved	ug/L	48.5J	100	02/16/17 14:03	
Manganese, Dissolved	ug/L	<1.1	5.0	02/16/17 14:03	
Nickel, Dissolved	ug/L	<1.9	10.0	02/16/17 14:03	

LABORATORY CONTROL SAMPLE: 1468291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	501	100	80-120	
Iron, Dissolved	ug/L	5000	5480	110	80-120	
Manganese, Dissolved	ug/L	500	472	94	80-120	
Nickel, Dissolved	ug/L	500	486	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1468292 1468293

Parameter	Units	40145561020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Dissolved	ug/L	<10.0	500	500	493	495	99	99	75-125	0	20	
Iron, Dissolved	ug/L	13400	5000	5000	18400	18600	101	103	75-125	1	20	
Manganese, Dissolved	ug/L	42.5	500	500	507	508	93	93	75-125	0	20	
Nickel, Dissolved	ug/L	10.7	500	500	489	490	96	96	75-125	0	20	

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QUALITY CONTROL DATA

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

QC Batch:	248566	Analysis Method:	EPA 6010
QC Batch Method:	EPA 6010	Analysis Description:	ICP Metals, Trace, Dissolved
Associated Lab Samples:	40145656010, 40145656011, 40145656012		

METHOD BLANK: 1468668 Matrix: Water

Associated Lab Samples: 40145656010, 40145656011, 40145656012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.5	10.0	02/17/17 13:11	
Iron, Dissolved	ug/L	44.5J	100	02/17/17 13:11	
Manganese, Dissolved	ug/L	<1.1	5.0	02/17/17 13:11	
Nickel, Dissolved	ug/L	<1.9	10.0	02/17/17 13:11	

LABORATORY CONTROL SAMPLE: 1468669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	488	98	80-120	
Iron, Dissolved	ug/L	5000	5140	103	80-120	
Manganese, Dissolved	ug/L	500	478	96	80-120	
Nickel, Dissolved	ug/L	500	483	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1468670 1468671

Parameter	Units	40145656010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Dissolved	ug/L	<2.5	500	500	492	495	98	99	75-125	1	20	
Iron, Dissolved	ug/L	266	5000	5000	5380	5570	102	106	75-125	3	20	
Manganese, Dissolved	ug/L	48.3	500	500	522	523	95	95	75-125	0	20	
Nickel, Dissolved	ug/L	<1.9	500	500	480	484	96	97	75-125	1	20	

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QUALITY CONTROL DATA

Project: 6134B PHILLIPS PLATING
Pace Project No.: 40145656

QC Batch:	248373	Analysis Method:	SM 3500-Cr B (Online)
QC Batch Method:	SM 3500-Cr B (Online)	Analysis Description:	Chromium, Hexavalent by 3500
Associated Lab Samples:	40145656001, 40145656002, 40145656003, 40145656004, 40145656005, 40145656006, 40145656007, 40145656008, 40145656009, 40145656010, 40145656011, 40145656012		

METHOD BLANK:	1467710	Matrix:	Water
Associated Lab Samples:	40145656001, 40145656002, 40145656003, 40145656004, 40145656005, 40145656006, 40145656007, 40145656008, 40145656009, 40145656010, 40145656011, 40145656012		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0051	0.017	02/15/17 09:10	

LABORATORY CONTROL SAMPLE: 1467711

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.30	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1467712 1467713

Parameter	Units	40145656001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/L	<0.0051	.3	.3	0.31	0.30	103	101	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1467714 1467715

Parameter	Units	40145656011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/L	<0.026	1.5	1.5	1.6	1.6	105	105	90-110	0	20	

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QUALITY CONTROL DATA

Project: 6134B PHILLIPS PLATING
Pace Project No.: 40145656

QC Batch:	248443	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples:	40145656001, 40145656002, 40145656003, 40145656004, 40145656005, 40145656006, 40145656007, 40145656008, 40145656009, 40145656010, 40145656011, 40145656012		

METHOD BLANK:	1468119	Matrix:	Water
Associated Lab Samples:	40145656001, 40145656002, 40145656003, 40145656004, 40145656005, 40145656006, 40145656007, 40145656008, 40145656009, 40145656010, 40145656011, 40145656012		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate as N	mg/L	<0.075	0.22	02/15/17 11:12	

LABORATORY CONTROL SAMPLE: 1468120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	1.5	1.5	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1468121 1468122

Parameter	Units	40145656012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	4.1	7.5	7.5	13.1	12.1	119	106	90-110	8	15	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1468123 1468124

Parameter	Units	40145675001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	<0.075	1.5	1.5	1.6	1.6	106	107	90-110	1	15	

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QUALITY CONTROL DATA

Project: 6134B PHILLIPS PLATING
Pace Project No.: 40145656

QC Batch:	248772	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples:	40145656001, 40145656002, 40145656003, 40145656004, 40145656005, 40145656006, 40145656007, 40145656008, 40145656009, 40145656010, 40145656011, 40145656012		

METHOD BLANK:	1469711	Matrix:	Water
Associated Lab Samples:	40145656001, 40145656002, 40145656003, 40145656004, 40145656005, 40145656006, 40145656007, 40145656008, 40145656009, 40145656010, 40145656011, 40145656012		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<1.0	3.0	02/23/17 16:40	

LABORATORY CONTROL SAMPLE: 1469712

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	21.0	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1469713 1469714

Parameter	Units	40145648001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	37.0	200	200	253	254	108	109	90-110	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1469715 1469716

Parameter	Units	40145656001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	21.5	100	100	129	129	108	108	90-110	0	15	

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QUALIFIERS

Project: 6134B PHILLIPS PLATING
Pace Project No.: 40145656

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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

1q Analyte was detected in the associated method blank at a concentration of -0.0061 mg/L.

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H1 Analysis conducted outside the recognized method holding time.

H3 Sample was received or analysis requested beyond the recognized method holding time.

H5 Reanalysis conducted in excess of EPA method holding time. Results confirm original analysis performed in hold time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40145656001	MW1	EPA 6010	248487		
40145656002	MW2	EPA 6010	248487		
40145656003	MW4	EPA 6010	248487		
40145656004	MW5	EPA 6010	248487		
40145656005	MW6	EPA 6010	248487		
40145656006	MW7	EPA 6010	248487		
40145656007	MW8	EPA 6010	248487		
40145656008	MW9	EPA 6010	248487		
40145656009	MW10	EPA 6010	248487		
40145656010	MW11	EPA 6010	248566		
40145656011	MW12	EPA 6010	248566		
40145656012	PZ1	EPA 6010	248566		
40145656001	MW1	SM 3500-Cr B (Online)	248373		
40145656002	MW2	SM 3500-Cr B (Online)	248373		
40145656003	MW4	SM 3500-Cr B (Online)	248373		
40145656004	MW5	SM 3500-Cr B (Online)	248373		
40145656005	MW6	SM 3500-Cr B (Online)	248373		
40145656006	MW7	SM 3500-Cr B (Online)	248373		
40145656007	MW8	SM 3500-Cr B (Online)	248373		
40145656008	MW9	SM 3500-Cr B (Online)	248373		
40145656009	MW10	SM 3500-Cr B (Online)	248373		
40145656010	MW11	SM 3500-Cr B (Online)	248373		
40145656011	MW12	SM 3500-Cr B (Online)	248373		
40145656012	PZ1	SM 3500-Cr B (Online)	248373		
40145656001	MW1	EPA 300.0	248443		
40145656002	MW2	EPA 300.0	248443		
40145656003	MW4	EPA 300.0	248443		
40145656004	MW5	EPA 300.0	248443		
40145656005	MW6	EPA 300.0	248443		
40145656006	MW7	EPA 300.0	248443		
40145656007	MW8	EPA 300.0	248443		
40145656008	MW9	EPA 300.0	248443		
40145656009	MW10	EPA 300.0	248443		
40145656010	MW11	EPA 300.0	248443		
40145656011	MW12	EPA 300.0	248443		
40145656012	PZ1	EPA 300.0	248443		
40145656001	MW1	EPA 300.0	248772		
40145656002	MW2	EPA 300.0	248772		
40145656003	MW4	EPA 300.0	248772		
40145656004	MW5	EPA 300.0	248772		
40145656005	MW6	EPA 300.0	248772		
40145656006	MW7	EPA 300.0	248772		
40145656007	MW8	EPA 300.0	248772		
40145656008	MW9	EPA 300.0	248772		
40145656009	MW10	EPA 300.0	248772		
40145656010	MW11	EPA 300.0	248772		
40145656011	MW12	EPA 300.0	248772		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6134B PHILLIPS PLATING

Pace Project No.: 40145656

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40145656012	PZ1	EPA 300.0	248772		

REPORT OF LABORATORY ANALYSIS

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Client Name: REI

Project #:

WO#: **40145656**



40145656

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: WATLO

Tracking #: 1282851-1

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

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Thermometer Used N/A

Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None

☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 20 / Corr:

Biological Tissue is Frozen: ☐ yes

Temp Blank Present: ☐ yes ☒ no

☐ no

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:

Date: 2/15/12

Initials: RL

Comments:

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 ☐ N/A	5.
- VOA Samples frozen upon receipt	☐ Yes ☐ No	Date/Time:
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
-Pace IR Containers Used:	☐ Yes ☐ No ☒ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	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: <u>W</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☒ Yes ☐ No ☐ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO ₃ , H ₂ SO ₄ ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☒ Yes ☐ No ☐ N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐ Yes ☒ No	Initial when completed <u>RL</u>
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☒ N/A	14.
Trip Blank Present:	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Person Contacted:

Date/Time:

If checked, see attached form for additional comments ☐

Comments/ Resolution:

Project Manager Review:

Date:

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034
Printed: 02/17/17 Page 1 of 1
NLS Project: 274885
NLS Customer: 29027
Fax: 715 675 4060 Phone: 715 675 9784

Client: REI Engineering Inc
Attn: Ken Lassa
4080 North 20th Avenue
Wausau, WI 54401 8846

Project: Phillips Plating / #6134B

MW 10 NLS ID: 973589

COC: :1 Matrix: GW

Collected: 02/14/17 11:10 Received: 02/15/17

Parameter

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chromium, dis. as Cr by ICP	670	ug/L	1	0.67	2.0	02/16/17	SW846 6010	721026460
Chromium, Hex. as Cr+6	250	ug/L	25	28*	85*	02/15/17	3500-Cr B-2009	721026460
Nickel, dis. as Ni by ICP	270	ug/L	1	1.1	3.4	02/16/17	SW846 6010	721026460
Metals digestion - dissolved ICP	yes					02/15/17	SW846 3005M	721026460

MW 11 NLS ID: 973590

COC: :2 Matrix: GW

Collected: 02/14/17 10:50 Received: 02/15/17

Parameter

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chromium, dis. as Cr by ICP	ND	ug/L	1	0.67	2.0	02/16/17	SW846 6010	721026460
Chromium, Hex. as Cr+6	[2.5]	ug/L	1	1.1*	3.4*	02/15/17	3500-Cr B-2009	721026460
Nickel, dis. as Ni by ICP	ND	ug/L	1	1.1	3.4	02/16/17	SW846 6010	721026460
Metals digestion - dissolved ICP	yes					02/15/17	SW846 3005M	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

ND = Not Detected (< LOD) LOD = Limit of Detection

DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000

MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

LOQ = Limit of Quantitation

1000 ug/L = 1 mg/L

Shaded results indicate >MCL.

Reviewed by:



Authorized by:
R. T. Krueger
President

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

NORTHERN LAKE SERVICE, INC.

Analytical Laboratory and Environmental Services
400 North Lake Avenue • Crandon, WI 54520-1298
Tel: (715) 478-2777 • Fax: (715) 478-3060

Wisconsin Lab Cert. No. 721026460
WI DATCP 105-000330

CLIENT <u>REI Engineering Inc</u>	
ADDRESS <u>4080 N 207th Ave</u>	
CITY <u>Wausau</u>	STATE <u>WI</u> ZIP <u>54401</u>
PROJECT DESCRIPTION / NO. <u>Phillips Planting / #6134B</u> QUOTATION NO.	
DNR FID #	DNR LICENSE #
CONTACT <u>Ken Lassa</u> PHONE	
PURCHASE ORDER NO. FAX	

MATRIX:
SW = surface water
WW = waste water
GW = groundwater
DW = drinking water
TIS = tissue
AIR = air
SOIL = soil
SED = sediment
PROD = product
SL = sludge
OTHER

USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered.
Indicate G or C if WW Sample is Grab or Composite.

ANALYZE PER ORDER OF ANALYSIS	Y	Y	Y	N
Dissolved Ni				
Dissolved Cr				
Hex Cr				



NO.

ITEM NO.	NLS LAB. NO.	SAMPLE ID	COLLECTION DATE	TIME	MATRIX (See above)	COLLECTION REMARKS (i.e. DNR Well ID #)
1.	993589	MW10	2/14/17	11:10	GW	X X X
2.	590	MW11	2/14/17	10:50	GW	X X X
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

COLLECTED BY (signature) <u>Ken Lassa - REI</u>	CUSTODY SEAL NO. (IF ANY)	DATE/TIME
REQUISISHED BY (signature)	RECEIVED BY (signature)	DATE/TIME
DISPATCHED BY (signature)	METHOD OF TRANSPORT <u>Hand</u>	DATE/TIME
RECEIVED AT NLS BY (signature)	DATE/TIME	CONDITION
REMARKS & OTHER INFORMATION		TEMP.
COOLER #	WDNR FACILITY NUMBER	E-MAIL ADDRESS

PRESERVATIVE: N = nitric acid OH = sodium hydroxide
NP = no preservative Z = zinc acetate HA = hydrochloric & ascorbic acid
S = sulfuric acid M = methanol H = hydrochloric acid

IMPORTANT:
1. TO MEET REGULATORY REQUIREMENTS, THIS FORM MUST BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
2. PLEASE USE ONE LINE PER SAMPLE. NOT PER BOTTLE.
3. RETURN THIS FORM WITH SAMPLES-CLIENT MAY KEEP PINK COPY.
4. PARTIES COLLECTING SAMPLE, LISTED AS REPORT TO AND LISTED AS INVOICED TO AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

September 07, 2017

Ken Lassa
REI
4080 North 20th Avenue
Wausau, WI 54401

RE: Project: 6134 B PHILLIPS PLATING
Pace Project No.: 40155893

Dear Ken Lassa:

Enclosed are the analytical results for sample(s) received by the laboratory on August 30, 2017. 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,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

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

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SAMPLE SUMMARY

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40155893001	MW1	Water	08/29/17 09:45	08/30/17 08:45
40155893002	MW2	Water	08/29/17 10:20	08/30/17 08:45
40155893003	MW4	Water	08/29/17 10:35	08/30/17 08:45
40155893004	MW5	Water	08/29/17 10:50	08/30/17 08:45
40155893005	MW6	Water	08/29/17 12:15	08/30/17 08:45
40155893006	MW7	Water	08/29/17 10:10	08/30/17 08:45
40155893007	MW8	Water	08/29/17 11:00	08/30/17 08:45
40155893008	MW9	Water	08/29/17 11:50	08/30/17 08:45
40155893009	MW10	Water	08/29/17 11:30	08/30/17 08:45
40155893010	MW11	Water	08/29/17 11:15	08/30/17 08:45
40155893011	MW12	Water	08/29/17 10:00	08/30/17 08:45
40155893012	PZ1	Water	08/29/17 12:00	08/30/17 08:45

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SAMPLE ANALYTE COUNT

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40155893001	MW1	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40155893002	MW2	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40155893003	MW4	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40155893004	MW5	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40155893005	MW6	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40155893006	MW7	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40155893007	MW8	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40155893008	MW9	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40155893009	MW10	EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
40155893010	MW11	EPA 6010	DLB	4	PASI-G

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40155893011	MW12	SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
40155893012	PZ1	EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 6010	DLB	4	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 300.0	HMB	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW1 Lab ID: 40155893001 Collected: 08/29/17 09:45 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		08/31/17 13:54	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 13:54	7439-89-6	
Manganese, Dissolved	2.3J	ug/L	5.0	1.1	1		08/31/17 13:54	7439-96-5	
Nickel, Dissolved	60.9	ug/L	10.0	1.9	1		08/31/17 13:54	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.0051	mg/L	0.017	0.0051	1		08/30/17 16:05		H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	6.0	mg/L	1.1	0.38	5		08/31/17 11:07	14797-55-8	H5
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	18.2	mg/L	3.0	1.0	1		08/30/17 16:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW2 Lab ID: 40155893002 Collected: 08/29/17 10:20 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		08/31/17 13:57	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 13:57	7439-89-6	
Manganese, Dissolved	136	ug/L	5.0	1.1	1		08/31/17 13:57	7439-96-5	
Nickel, Dissolved	8.1J	ug/L	10.0	1.9	1		08/31/17 13:57	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.26	mg/L	0.86	0.26	50		08/30/17 16:05		D3,H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	22.9	mg/L	2.2	0.75	10		08/31/17 11:40	14797-55-8	H5
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	16.3	mg/L	15.0	5.0	5		08/30/17 17:25	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW4 Lab ID: 40155893003 Collected: 08/29/17 10:35 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		08/31/17 13:59	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 13:59	7439-89-6	
Manganese, Dissolved	<1.1	ug/L	5.0	1.1	1		08/31/17 13:59	7439-96-5	
Nickel, Dissolved	<1.9	ug/L	10.0	1.9	1		08/31/17 13:59	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.0051	mg/L	0.017	0.0051	1		08/30/17 16:05		H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	3.5	mg/L	0.22	0.075	1		08/30/17 17:36	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	8.5	mg/L	3.0	1.0	1		08/30/17 17:36	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW5 Lab ID: 40155893004 Collected: 08/29/17 10:50 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	365	ug/L	10.0	2.5	1		08/31/17 14:01	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 14:01	7439-89-6	
Manganese, Dissolved	11.0	ug/L	5.0	1.1	1		08/31/17 14:01	7439-96-5	
Nickel, Dissolved	922	ug/L	10.0	1.9	1		08/31/17 14:01	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	0.22J	mg/L	0.43	0.13	25		08/30/17 16:05		D3,H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	5.0	mg/L	1.1	0.38	5		08/30/17 17:47	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	24.4	mg/L	15.0	5.0	5		08/30/17 17:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW6 Lab ID: 40155893005 Collected: 08/29/17 12:15 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	5800	ug/L	10.0	2.5	1		08/31/17 14:04	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 14:04	7439-89-6	
Manganese, Dissolved	922	ug/L	5.0	1.1	1		08/31/17 14:04	7439-96-5	
Nickel, Dissolved	4140	ug/L	10.0	1.9	1		08/31/17 14:04	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	7.3	mg/L	0.43	0.13	25		08/30/17 16:05		H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	6.7	mg/L	1.1	0.38	5		08/30/17 17:58	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	251	mg/L	15.0	5.0	5		08/30/17 17:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW7 Lab ID: 40155893006 Collected: 08/29/17 10:10 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	5.2J	ug/L	10.0	2.5	1		08/31/17 14:06	7440-47-3	
Iron, Dissolved	90.6J	ug/L	100	15.5	1		08/31/17 14:06	7439-89-6	
Manganese, Dissolved	3.5J	ug/L	5.0	1.1	1		08/31/17 14:06	7439-96-5	
Nickel, Dissolved	<1.9	ug/L	10.0	1.9	1		08/31/17 14:06	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.51	mg/L	1.7	0.51	100		08/30/17 16:05		D3,H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	2.8	mg/L	1.1	0.38	5		08/30/17 18:08	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	35.0	mg/L	15.0	5.0	5		08/30/17 18:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW8 Lab ID: 40155893007 Collected: 08/29/17 11:00 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	470	ug/L	10.0	2.5	1		08/31/17 14:09	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 14:09	7439-89-6	
Manganese, Dissolved	38.2	ug/L	5.0	1.1	1		08/31/17 14:09	7439-96-5	
Nickel, Dissolved	1750	ug/L	10.0	1.9	1		08/31/17 14:09	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	0.53	mg/L	0.17	0.051	10		08/30/17 16:05		H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	12.1	mg/L	1.1	0.38	5		08/30/17 18:19	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	8.8J	mg/L	15.0	5.0	5		08/30/17 18:19	14808-79-8	D3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW9 Lab ID: 40155893008 Collected: 08/29/17 11:50 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	366	ug/L	10.0	2.5	1		08/31/17 14:11	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 14:11	7439-89-6	
Manganese, Dissolved	198	ug/L	5.0	1.1	1		08/31/17 14:11	7439-96-5	
Nickel, Dissolved	423	ug/L	10.0	1.9	1		08/31/17 14:11	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	0.36J	mg/L	0.43	0.13	25		08/30/17 16:05		D3,H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	8.6	mg/L	1.1	0.38	5		08/30/17 18:30	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	65.4	mg/L	15.0	5.0	5		08/30/17 18:30	14808-79-8	

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW10 Lab ID: 40155893009 Collected: 08/29/17 11:30 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	317	ug/L	10.0	2.5	1		08/31/17 14:13	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 14:13	7439-89-6	
Manganese, Dissolved	3.2J	ug/L	5.0	1.1	1		08/31/17 14:13	7439-96-5	
Nickel, Dissolved	118	ug/L	10.0	1.9	1		08/31/17 14:13	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	0.49	mg/L	0.086	0.026	5		08/30/17 16:05		H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	3.0	mg/L	0.22	0.075	1		08/30/17 18:41	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	31.9	mg/L	3.0	1.0	1		08/30/17 18:41	14808-79-8	

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW11 Lab ID: 40155893010 Collected: 08/29/17 11:15 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		08/31/17 14:20	7440-47-3	
Iron, Dissolved	166	ug/L	100	15.5	1		08/31/17 14:20	7439-89-6	
Manganese, Dissolved	37.2	ug/L	5.0	1.1	1		08/31/17 14:20	7439-96-5	
Nickel, Dissolved	<1.9	ug/L	10.0	1.9	1		08/31/17 14:20	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.026	mg/L	0.086	0.026	5		08/30/17 16:05		D3,H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	5.8	mg/L	1.1	0.38	5		08/30/17 18:52	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	17.0	mg/L	15.0	5.0	5		08/30/17 18:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: MW12 Lab ID: 40155893011 Collected: 08/29/17 10:00 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		08/31/17 14:23	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 14:23	7439-89-6	
Manganese, Dissolved	1.7J	ug/L	5.0	1.1	1		08/31/17 14:23	7439-96-5	
Nickel, Dissolved	<1.9	ug/L	10.0	1.9	1		08/31/17 14:23	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<0.051	mg/L	0.17	0.051	10		08/30/17 16:05		D3,H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	5.1	mg/L	1.1	0.38	5		08/30/17 19:35	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	17.3	mg/L	15.0	5.0	5		08/30/17 19:35	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Sample: PZ1 Lab ID: 40155893012 Collected: 08/29/17 12:00 Received: 08/30/17 08:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Chromium, Dissolved	1480	ug/L	10.0	2.5	1		08/31/17 14:25	7440-47-3	
Iron, Dissolved	<15.5	ug/L	100	15.5	1		08/31/17 14:25	7439-89-6	
Manganese, Dissolved	15.7	ug/L	5.0	1.1	1		08/31/17 14:25	7439-96-5	
Nickel, Dissolved	<1.9	ug/L	10.0	1.9	1		08/31/17 14:25	7440-02-0	
Chromium, Hexavalent Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	1.1	mg/L	0.17	0.051	10		08/30/17 16:05		H1
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	4.0	mg/L	1.1	0.38	5		08/30/17 19:46	14797-55-8	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	39.7	mg/L	15.0	5.0	5		08/30/17 19:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6134 B PHILLIPS PLATING
Pace Project No.: 40155893

QC Batch:	266343	Analysis Method:	EPA 6010
QC Batch Method:	EPA 6010	Analysis Description:	ICP Metals, Trace, Dissolved
Associated Lab Samples:	40155893001, 40155893002, 40155893003, 40155893004, 40155893005, 40155893006, 40155893007, 40155893008, 40155893009, 40155893010, 40155893011, 40155893012		

METHOD BLANK:	1565475	Matrix:	Water
Associated Lab Samples:	40155893001, 40155893002, 40155893003, 40155893004, 40155893005, 40155893006, 40155893007, 40155893008, 40155893009, 40155893010, 40155893011, 40155893012		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.5	10.0	08/31/17 13:16	
Iron, Dissolved	ug/L	<15.5	100	08/31/17 13:16	
Manganese, Dissolved	ug/L	<1.1	5.0	08/31/17 13:16	
Nickel, Dissolved	ug/L	<1.9	10.0	08/31/17 13:16	

LABORATORY CONTROL SAMPLE: 1565476

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	504	101	80-120	
Iron, Dissolved	ug/L	5000	5020	100	80-120	
Manganese, Dissolved	ug/L	500	498	100	80-120	
Nickel, Dissolved	ug/L	500	488	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1565477 1565478

Parameter	Units	40155630008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Dissolved	ug/L	<2.5	500	500	504	503	101	101	75-125	0	20	
Iron, Dissolved	ug/L	26.4J	5000	5000	4980	5040	99	100	75-125	1	20	
Manganese, Dissolved	ug/L	30.4	500	500	532	534	100	101	75-125	0	20	
Nickel, Dissolved	ug/L	2.0J	500	500	486	484	97	96	75-125	1	20	

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QUALITY CONTROL DATA

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

QC Batch:	266276	Analysis Method:	SM 3500-Cr B (Online)
QC Batch Method:	SM 3500-Cr B (Online)	Analysis Description:	Chromium, Hexavalent by 3500
Associated Lab Samples:	40155893001, 40155893002, 40155893003, 40155893004, 40155893005, 40155893006, 40155893007, 40155893008, 40155893009, 40155893010, 40155893011, 40155893012		

METHOD BLANK:	1565042	Matrix:	Water
Associated Lab Samples:	40155893001, 40155893002, 40155893003, 40155893004, 40155893005, 40155893006, 40155893007, 40155893008, 40155893009, 40155893010, 40155893011, 40155893012		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0051	0.017	08/30/17 16:05	

LABORATORY CONTROL SAMPLE: 1565043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.29	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1565044 1565045

Parameter	Units	40155893001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/L	<0.0051	.3	.3	0.27	0.29	91	96	90-110	6	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1565046 1565047

Parameter	Units	40155893011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/L	<0.051	3	3	3.0	3.0	101	99	90-110	2	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: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

QC Batch:	266281	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples:	40155893001, 40155893002, 40155893003, 40155893004, 40155893005, 40155893006, 40155893007, 40155893008, 40155893009, 40155893010, 40155893011, 40155893012		

METHOD BLANK:	1565073	Matrix:	Water
Associated Lab Samples:	40155893001, 40155893002, 40155893003, 40155893004, 40155893005, 40155893006, 40155893007, 40155893008, 40155893009, 40155893010, 40155893011, 40155893012		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate as N	mg/L	<0.075	0.22	08/30/17 15:56	
Sulfate	mg/L	<1.0	3.0	08/30/17 15:56	

LABORATORY CONTROL SAMPLE: 1565074

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	1.5	1.5	98	90-110	
Sulfate	mg/L	20	19.5	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1565075 1565076

Parameter	Units	40155893001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	6.0	7.5	7.5	13.3	13.4	97	98	90-110	1	15	
Sulfate	mg/L	18.2	20	20	39.0	39.1	104	105	90-110	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1565077 1565078

Parameter	Units	40155893012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	4.0	7.5	7.5	11.3	11.2	97	95	90-110	1	15	
Sulfate	mg/L	39.7	100	100	138	137	98	98	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 6134 B PHILLIPS PLATING
Pace Project No.: 40155893

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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H1 Analysis conducted outside the recognized method holding time.

H5 Reanalysis conducted in excess of EPA method holding time. Results confirm original analysis performed in hold time.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40155893001	MW1	EPA 6010	266343		
40155893002	MW2	EPA 6010	266343		
40155893003	MW4	EPA 6010	266343		
40155893004	MW5	EPA 6010	266343		
40155893005	MW6	EPA 6010	266343		
40155893006	MW7	EPA 6010	266343		
40155893007	MW8	EPA 6010	266343		
40155893008	MW9	EPA 6010	266343		
40155893009	MW10	EPA 6010	266343		
40155893010	MW11	EPA 6010	266343		
40155893011	MW12	EPA 6010	266343		
40155893012	PZ1	EPA 6010	266343		
40155893001	MW1	SM 3500-Cr B (Online)	266276		
40155893002	MW2	SM 3500-Cr B (Online)	266276		
40155893003	MW4	SM 3500-Cr B (Online)	266276		
40155893004	MW5	SM 3500-Cr B (Online)	266276		
40155893005	MW6	SM 3500-Cr B (Online)	266276		
40155893006	MW7	SM 3500-Cr B (Online)	266276		
40155893007	MW8	SM 3500-Cr B (Online)	266276		
40155893008	MW9	SM 3500-Cr B (Online)	266276		
40155893009	MW10	SM 3500-Cr B (Online)	266276		
40155893010	MW11	SM 3500-Cr B (Online)	266276		
40155893011	MW12	SM 3500-Cr B (Online)	266276		
40155893012	PZ1	SM 3500-Cr B (Online)	266276		
40155893001	MW1	EPA 300.0	266281		
40155893002	MW2	EPA 300.0	266281		
40155893003	MW4	EPA 300.0	266281		
40155893004	MW5	EPA 300.0	266281		
40155893005	MW6	EPA 300.0	266281		
40155893006	MW7	EPA 300.0	266281		
40155893007	MW8	EPA 300.0	266281		
40155893008	MW9	EPA 300.0	266281		
40155893009	MW10	EPA 300.0	266281		
40155893010	MW11	EPA 300.0	266281		
40155893011	MW12	EPA 300.0	266281		
40155893012	PZ1	EPA 300.0	266281		
40155893001	MW1	EPA 300.0	266281		
40155893002	MW2	EPA 300.0	266281		
40155893003	MW4	EPA 300.0	266281		
40155893004	MW5	EPA 300.0	266281		
40155893005	MW6	EPA 300.0	266281		
40155893006	MW7	EPA 300.0	266281		
40155893007	MW8	EPA 300.0	266281		
40155893008	MW9	EPA 300.0	266281		
40155893009	MW10	EPA 300.0	266281		
40155893010	MW11	EPA 300.0	266281		
40155893011	MW12	EPA 300.0	266281		
40155893012	PZ1	EPA 300.0	266281		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6134 B PHILLIPS PLATING

Pace Project No.: 40155893

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
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REPORT OF LABORATORY ANALYSIS

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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=Ether

**FILTERED?
(YES/NO)**

PRESERVATION
(CODE)*

Regulatory Program.

Mat

DW = Drinking Water
GW = Groundwater
Biota = Biota
Charcoal = Charcoal

- Oil
- = Soil
- = Sludge
- SW = Surface
- WW = Wastes
- WP = Wipe

	COLLECTION	
	DATE	TIME

5/29/17	9:45
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	07:20	
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10.3	Scm
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10:30	19:30
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10.0	
------	--

11-07	
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1157

11-30

11/5

10.00					
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00-71	-
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Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)

Date Needed: _____

	x	y	z
#1:			
#2:			

Phone:

Samples on HOLD are subject to

special pricing and release of liability

C019a(27Jun2006)

ORIGINAL

Project Contact: Ken Lassa						Quote #:					
Phone: 715-675-9784						Mail To Contact:					
Project Number: 6134 B						Mail To Company:					
Project Name: Phillips Plating						Mail To Address:					
Project State: WI						Invoice To Contact:					
Sampled By (Print): Jared Szewcs						Invoice To Company:					
Sampled By (Sign): [Signature]						Invoice To Address:					
PO #:											
Regulatory Program:											
Data Package Options (billable)						Matrix Codes					
☐ EPA Level III ☐ EPA Level IV						W = Water DW = Drinking Water GW = Ground Water SW = Surface Water WW = Waste Water S = Soil SI = Sludge					
MS/MSD						On your sample (billable) ☐ NOT needed on your sample					
CLIENT FIELD ID						COLLECTION DATE TIME MATRIX					
PACE LAB #											
001 MW1						8/29/17 9:45 GW					
002 MW2						10:20					
003 MW4						10:35					
004 MW5						10:50					
005 MW6						12:15					
006 MW7						10:10					
007 MW8						11:00					
008 MW9						11:50					
009 MW10						11:30					
010 MW11						11:15					
011 MW12						10:00					
012 PZ1						12:00					
Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:						Relinquished By: [Signature] Date/Time: 8/29/17 3:30 PM					
Transmit Prelim Rush Results by (complete what you want):						Relinquished By: [Signature] Date/Time: 8-30-17 0845					
Email #1:						Received By: [Signature] Date/Time: 8-30-17 0845					
Email #2:						Received By: [Signature] Date/Time: 8-30-17 0845					
Telephone:						Received By: [Signature] Date/Time: 8-30-17 0845					
Fax:						Received By: [Signature] Date/Time: 8-30-17 0845					
Samples on HOLD are subject to special pricing and release of liability						PACE Project No. -46155893					
						Receipt Temp = 60.1 °C					
						Sample Receipt pH OK Adjusted					
						Cooler Custody Seal Present / Not Intact					

Sample Condition Upon Receipt

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

Pace Analytical™

Project #:

Client Name:

REI

40155893

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: Walter

Tracking #: 1470327

AFFIX WORKORDER LABEL HERE

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

N/A

Type of Ice: ☒ Wet ☐ Blue Dry ☐ None

☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: REI /Corr:

Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Person examining contents:

Date: 8-30-17

Initials: SKW

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C.

Comments:

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 ☐ N/A	5. <u>Cr6 past hold</u>
- VOA Samples frozen upon receipt	☐ Yes ☐ No	Date/Time: <u>OK to run past Hold per KL 8-30-17</u>
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☐ Yes ☒ No ☐ N/A	8. <u>No MS/MSD Volume</u>
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
-Pace IR Containers Used:	☐ Yes ☐ No ☒ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	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:	<u>W</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☒ Yes ☐ No ☐ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☐ N/A	
(HNO3, H2SO4, NaOH+ZnAct ≥9, NaOH ≥12)	☒ Yes ☐ No ☐ N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐ Yes ☒ No	
Initial when completed:	<u>SKW</u>	Lab Std #ID of preservative
Date/Time:		
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☒ N/A	14.
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	15.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Person Contacted:

Date/Time:

If checked, see attached form for additional comments ☐

Comments/ Resolution:

Project Manager Review:

Date:

8-30-17

ANALYTICAL REPORT

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Ph: (715)-478-2777 Fax: (715)-478-3060

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034
Printed: 09/05/17 Page 1 of 1
NLS Project: 286049
NLS Customer: 29027
Fax: 715 675 4060 Phone: 715 675 9784

Client: REI Engineering Inc
Attn: Ken Lassa
4080 North 20th Avenue
Wausau, WI 54401 8846

Project: Phillips Plating 1 6134B

MW10 NLS ID: 1014473

COC: :1 Matrix: GW

Collected: 08/29/17 11:30 Received: 08/30/17
Notes: Not NLS bottles, run past hold for Hex Cr

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chromium, Hex. as Cr+6	440	ug/L	25	28*	85*	08/31/17	3500-Cr B-2009	721026460
The sample was received beyond holding time. Sample was analyzed upon client's request.								
Chromium, dis. as Cr by ICP-MS	330	ug/L	1	0.50*	1.0*	08/31/17	EPA 200.8, Rev 5.4	721026460
Nickel, dis. as Ni by ICP-MS	130	ug/L	1	0.50*	1.0*	08/31/17	EPA 200.8, Rev 5.4	721026460
Lab filtration	yes					08/31/17	NA	721026460

MW11 NLS ID: 1014474

COC: :3 Matrix: GW

Collected: 08/29/17 11:30 Received: 08/30/17
Notes: Not NLS bottles, run past hold for Hex Cr

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chromium, Hex. as Cr+6	ND	ug/L	1	1.1*	3.4*	08/31/17	3500-Cr B-2009	721026460
The sample was received beyond holding time. Sample was analyzed upon client's request.								
Chromium, dis. as Cr by ICP-MS	ND	ug/L	1	0.50*	1.0*	08/31/17	EPA 200.8, Rev 5.4	721026460
Nickel, dis. as Ni by ICP-MS	[0.53]	ug/L	1	0.50*	1.0*	08/31/17	EPA 200.8, Rev 5.4	721026460
Lab filtration	yes					08/31/17	NA	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

ND = Not Detected (< LOD) LOD = Limit of Detection
DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000
MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

LOQ = Limit of Quantitation
NA = Not Applicable

1000 ug/L = 1 mg/L

Reviewed by:

Authorized by:
R. T. Krueger
President

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

NORTHERN LAKE SERVICE, INC.

Wisconsin Lab Cert. No. 721026460

Analytical Laboratory and Environmental Services

WI DATCP 105-000330

400 North Lake Avenue • Crandon, WI 54520-1298

Tel: (715) 478-2777 • Fax: (715) 478-3060

CLIENT <i>REI Engineering, Inc</i>		STATE	ZIP
ADDRESS <i>4080 N 20th Ave Wausau 54401</i>			
CITY	STATE	ZIP	
PROJECT DESCRIPTION / NO. <i>Phillips Planting 1 6134B</i>		QUOTATION NO.	
DNR FID #	DNR LICENSE #		
CONTACT <i>Ken Lassa</i>	PHONE		
PURCHASE ORDER NO.	FAX		

MATRIX:
 SW = surface water
 WW = waste water
 GW = groundwater
 DW = drinking water
 TIS = tissue
 AIR = air
 SOIL = soil
 SED = sediment
 PROD = product
 SL = sludge
 OTHER

ANALYZE PER ORDER OF ANALYSIS				USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered. Indicate G or C if WW Sample is Grab or Composite.			
Y	X	X	X	Y	X	X	X
<i>Dissolved Ni</i>				<i>Hex Cr</i>			

ITEM NO.	NLS LAB. NO.	SAMPLE ID	COLLECTION DATE	TIME	MATRIX (See above)	NO.	COLLECTION REMARKS (i.e. DNR Well ID #)
1.	<i>614473</i>	<i>MW10</i>	<i>8/29/17</i>	<i>11:30</i>	<i>GW</i>		
2.	<i>6174</i>	<i>MW11</i>	<i>8/29/17</i>	<i>11:15</i>	<i>GW</i>		
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

COLLECTED BY (signature) <i>David Spartz</i>	CUSTODY SEAL NO. (IF ANY)	DATE/TIME
RECEIVED BY (signature) <i>David Spartz</i>		DATE/TIME
DISPATCHED BY (signature) <i>Ken Lassa</i>	METHOD OF TRANSPORT <i>Hand</i>	DATE/TIME <i>8/30/17 8:45</i>
RECEIVED BY (signature) <i>Ken Lassa</i>	DATE/TIME <i>8/30/17 9:40</i>	CONDITION <i>good</i>
REMARKS & OTHER INFORMATION <i>Play a run Hex Chrom. mp</i>	WDNR FACILITY NUMBER	TEMP.
E-MAIL ADDRESS		

COOLER #
 PRESERVATIVE:
 NP = no preservative
 S = sulfuric acid
 N = nitric acid
 Z = zinc acetate
 M = methanol
 OH = sodium hydroxide
 HIA = hydrochloric & ascorbic acid
 HI = hydrochloric acid

- IMPORTANT:**
1. TO MEET REGULATORY REQUIREMENTS, THIS FORM MUST BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
 2. PLEASE USE ONE LINE PER SAMPLE, NOT PER BOTTLE.
 3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.
 4. PARTIES COLLECTING SAMPLE, LISTED AS REPORT TO AND LISTED AS INVOICED TO AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

REPORT TO <i>Ken Lassa - REI</i>
INVOICE TO <i>Ken Lassa - REI</i>