



Wisconsin Public Service Corporation

700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

www.wisconsinpublicservice.com

December 19, 2018

Mr. Brian Miller
City Engineer
City of Marinette
1905 Hall Avenue
Marinette, WI, 54143

**Subject: Recent Groundwater Sampling Results
WPSC Former Marinette MGP Site, 1603 Ely Street, Marinette, WI
WDNR BRRTS Activity # 02-38-000047**

Dear Mr. Miller:

WEC Business Services, LLC (WBS), managing the Wisconsin Public Service Corporation (WPSC) former manufactured gas plant site at 1603 Ely Street, is providing groundwater samples results collected as part of routine semi-annual monitoring from locations MW01R, MW03R, MW05, MW302-MW305, MW307R, MW308, MW310-MW313, and P302-P305 collected between October 8 and 9, 2018. Wisconsin Administrative Code Chapter NR716.14 requires responsible parties (WPSC for the above mentioned site) to report sampling results to the property owner, and occupant, as applicable.

Results of the sampling are summarized in the attached. This includes a summary table of the results compared to State standards. Copies of the relevant portions of the associated laboratory report and a figure showing the locations of samples collected on your property are also included. The results will be presented in the future Remedial Design Report.

We appreciate your ongoing cooperation with environmental activities at the site. If you need additional information, please contact Mr. Kevin McKnight from the WDNR at 920-424-7890 or myself at 414-221-2156.

Sincerely,

A handwritten signature in black ink, appearing to read 'Frank Dombrowski', is written over the word 'Sincerely,'.

Frank Dombrowski
Principal Environmental Consultant
WEC Energy Group – Business Services
Environmental Dept.

Enc: Figure 1. Monitoring Well Locations City of Marinette
Table 1. Groundwater Analytical Results for the City of Marinette
Laboratory Data Report - 40177402_frc

CC: USEPA RPM – Ms. Margaret Gielniewski (email only)
WDNR PM – Mr. Kevin McKnight (email and hard copy)



RECENT SAMPLING RESULTS

**WPSC Former Marinette MGP Site
1603 Ely Street, Marinette, Wisconsin
WDNR BRRS Activity # 02-38-000047**

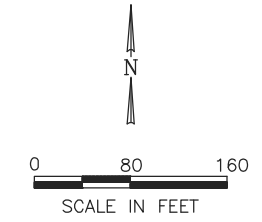
FIGURES

Jun 21, 2015 1:52pm PLOTTED BY: ddudd SAVED BY: ddudd
 I:\ACADData\Projects\15\1549 Marinette\17-5 RI Report_Rev\1549-175-B06.dwg -Layout1
 XREFS: Y:\ACADData\Projects\15\1549 Marinette\17-5 RI Report_Rev\1549-175-Base 2.dwg



	MONITORING WELL
	PIEZOMETER
	GAS LINE
	WATER LINE
	ELECTRICAL LINE
	OVERHEAD ELECTRIC LINE
	SANITARY SEWER LINE
	STORM SEWER LINE
	UNDERGROUND ELECTRIC LINE
	FORMER SLOUGH
	FORMER MGP PROPERTY LINE (1923)
	FORMER MGP STRUCTURE
	EXISTING STRUCTURE

NOTE:
 SAMPLING LOCATIONS IN BLUE WERE COMPLETED AS PART OF REMEDIAL INVESTIGATION ACTIVITIES IN 2012/2013/2014.



- SOURCE NOTES:**
- THIS DRAWING WAS DEVELOPED FROM A MAP BY THE CITY OF MARINETTE.
 - PORTIONS OF THE DRAWING ARE FROM A DIGITAL FILE FROM STS CONSULTANTS, LTD. CONSULTING ENGINEERS, GREEN BAY, WISCONSIN, PROJECT NUMBER 26936, REVISED JANUARY 2001. HYDROGRAPHIC SURVEY OF RIVER WAS PERFORMED BY AYRES AND ASSOCIATES ON JULY 24-26, 2001. VERTICAL CONTROL IS U.S.G.S. DATUM. BUILDING AND STREET LOCATIONS NORTH OF RAILROAD TRACKS WERE SUPPLIED BY MARINETTE MARINE CORPORATION.
 - PORTIONS OF THIS DRAWING ARE FROM HYDRO-SEARCH DRAWING.
 - EXISTING STRUCTURES AND UTILITIES FROM FOTH & VAN DYKE ENGINEERS/ARCHITECTS, GRADING PLAN, DIGITAL FILE 7m755c06.DWG, RECORD DRAWING REVISIONS 2/22/90 AND FROM SMET CONSTRUCTION SERVICES PDF DRAWING SET "MARINETTE MARINE BLDG 32 OUTFITTING", SHEET C1.1, DATED APRIL 24, 2012.
 - WELL LOCATIONS FROM A SURVEY BY WPSO DATED OCTOBER 8, 2003, REVISED OCTOBER 31, 2003.
 - VERTICAL CONTROL IS NAVD88 DATUM
 - BRICK INTERCEPTOR SEWER REPLACEMENT TAKEN FROM DRAWING BY AYRES ASSOCIATES, GREEN BAY, WISCONSIN, JOB NO. 16-0189.10, DRAWING NO. P101, SHEET NO. 7, DATED 3/4/03.
 - MONITORING WELLS MW2R, MW3R, MW307R INSTALLED OCTOBER 2004 AND MW308, MW310, P305 INSTALLED JUNE 2004. SURVEYED BY WPSO IN JANUARY 2005. (NAVD88, MARINETTE COUNTY COORDINATES).
 - POSTORINO USTs WERE IDENTIFIED IN AYRES ASSOCIATES SITE ASSESSMENT AND REMEDIAL ACTION OPTIONS REPORT, CITY OF MARINETTE PROPERTY 500 MANN STREET MARINETTE WISCONSIN 54143 DATED AUGUST 2010.
 - BOOM LANDING SITE WAS DEVELOPED FROM A SURVEY DONE BY WISCONSIN PUBLIC SERVICE BY KJR BOOM LANDING SITE FEATURES DEVELOPED FROM A SURVEY ON 08/14/12, DRAWING "BOOM LANDING 8_12". THE CHANNEL LIMITS AND PORTIONS OF THE SHORELINE ARE FROM U.S. ARMY CORPS OF ENGINEERS DRAWING "CONDITION OF CHANNEL-SEP. 2008", SHEET 4 OF 4.
 - HORIZONTAL DATUM IS MARINETTE COUNTY COORDINATE SYSTEM, UNITS=US FOOT.
 - SOME OFF-SITE UPLAND FEATURES DIGITIZED FROM BING MAPS AERIAL-© 2012 MICROSOFT CORPORATION.
 - BM-SG IS LOCATED ON TOP OF SHEETPILE WALL EAST OF BOAT RAMP.
 - SAMPLING LOCATIONS SB352 THROUGH SB370 COLLECTED BY NRT, OCTOBER 2014.

MONITORING WELL LOCATIONS CITY OF MARINETTE	DRAWN BY: DMD	DATE: 11/13/14
	CHECKED BY: NDK	DATE: 11/24/14
	APPROVED BY: BGH	DATE: 01/21/15
REMEDIAL INVESTIGATION REPORT - REVISION 2 FORMER MARINETTE MGP SITE WISCONSIN PUBLIC SERVICE CORPORATION MARINETTE, WISCONSIN		DRAWING NO: 1549-175-B06
PROJECT NO.		1549/17.5
FIGURE NO.		1

TABLES

Table 1. Groundwater Analytical Results for the City of Marinette

October 2018 Sample Results Notification
 Wisconsin Public Service Corporation - Former Marinette Manufactured Gas Plant
 Marinette, Wisconsin
 BRRTS# 0238000047
 CERCLIS ID - WIN000509952

9-digit Code	Station Name	Sample Date	BTEX		BTEX		BTEX		BTEX		BTEX		PAH		PAH		PAH		PAH		PAH		PAH		PAH		PAH							
			Benzene	Ethylbenzene	Toluene	Xylene, o	Xylenes, m + p	Xylenes, Total	Anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene																
Reporting Units:			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L						
			Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag						
WI Groundwater ES:			5		700		800		NS		NS		2,000		3,000		0.2		0.2		NS		0.2		400		400		100		NS		250	
WI Groundwater PAL:			0.5		140		160		NS		NS		400		600		0.02		0.02		NS		0.02		80		80		10		NS		50	
100918016	MW01R	10/09/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	<0.011	U	<0.012	U	<0.0063	U	<0.0075	U	<0.014	U	<0.012	U	<0.0088	U	0.063	J	<0.015	U	<0.0084	U
100918012	MW03R	10/09/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	0.043	J	0.024	J	0.059	J	0.049	J	0.051	J	0.060	J	<0.0084	U	<0.019	U	0.016	J	0.064	J
100818008	MW05	10/08/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	<0.010	U	<0.010	U	<0.0057	U	<0.0067	U	<0.013	U	<0.011	U	<0.0079	U	<0.018	U	<0.014	U	<0.0076	U
100818002	MW302	10/08/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	0.017	J	0.011	J	0.018	J	0.014	J	0.015	J	0.017	J	<0.0084	U	<0.019	U	<0.015	U	0.022	J
100818006	MW303	10/08/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	0.028	J	<0.011	U	<0.0060	U	<0.0071	U	<0.014	U	<0.011	U	<0.0083	U	<0.019	U	<0.014	U	0.032	J
100818004	MW304	10/08/2018	8.3		0.93	J	0.66	J	1.4	J	1.1	J	2.5	J	0.059	J	<0.011	U	<0.0057	U	<0.0068	U	<0.013	U	0.035	J	0.046	J	<0.018	U	0.024	J	0.017	J
100818005	MW304-Dup	10/08/2018	11.1		1.2	J	0.88	J	1.9	J	1.2	J	3.1	J	0.084	J	<0.011	U	<0.0060	U	<0.0071	U	<0.014	U	0.046	J	0.071	J	<0.019	U	0.033	J	0.024	J
100818001	MW305	10/08/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	<0.011	U	<0.011	U	0.0069	J	<0.0069	U	<0.013	U	<0.011	U	<0.0081	U	<0.019	U	<0.014	U	<0.0078	U
100918018	MW307R	10/09/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	0.12	J	0.012	J	0.029	J	0.020	J	0.047	J	0.25	J	0.40	J	0.055	J	0.34	J	0.27	J
100918019	MW307R-Dup	10/09/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	0.12	J	<0.011	U	0.018	J	0.010	J	0.038	J	0.23	J	0.36	J	0.056	J	0.30	J	0.25	J
100918010	MW308	10/09/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	<0.011	U	<0.011	U	0.011	J	<0.0071	U	<0.014	U	<0.011	U	<0.0083	U	<0.019	U	<0.014	U	0.010	J
100918020	MW310	10/09/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	0.046	J	<0.011	U	0.0098	J	<0.0071	U	<0.014	U	0.11	J	1.1	J	0.020	J	<0.015	U	0.11	J
100918021	MW311	10/09/2018	154		114	J	8.8	J	64.1	J	20.0	J	84.1	J	2.7	J	<0.44	U	<0.24	U	<0.28	U	<0.54	U	1.9	J	19.5	J	585	J	16.3	J	2.4	J
100918017	MW312	10/09/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	0.030	J	<0.011	U	<0.0060	U	<0.0071	U	<0.014	U	0.073	J	0.18	J	0.035	J	0.10	J	0.078	J
100818007	MW313	10/08/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	0.017	J	<0.011	U	0.016	J	0.013	J	<0.014	U	0.016	J	0.017	J	0.027	J	<0.014	U	0.020	J
100818003	P302	10/08/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	<0.011	U	<0.011	U	<0.0062	U	<0.0073	U	<0.014	U	<0.011	U	<0.0086	U	<0.020	U	<0.015	U	<0.0082	U
100918013	P303	10/09/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	<0.010	U	<0.011	U	0.011	J	0.010	J	<0.013	U	0.014	J	<0.0080	U	<0.018	U	0.020	J	0.018	J
100918014	P304	10/09/2018	<0.25	U	<0.22	U	<0.17	U	<0.26	U	<0.47	U	<1.5	U	<0.012	U	<0.012	U	<0.0067	U	<0.0079	U	<0.015	U	<0.012	U	<0.0093	U	<0.021	U	<0.016	U	<0.0089	U
100918011	P305	10/09/2018	<u>0.62</u>	J	0.26	J	0.25	J	<0.26	U	<0.47	U	<1.5	U	0.25	J	<0.011	U	<0.0060	U	<0.0071	U	<0.014	U	1.1	J	3.5	J	<u>10.6</u>	J	0.96	J	0.91	J

Notes
BOLD = concentration that attains or exceeds WDNR ES
Underline = concentration that attains or exceeds WDNR PAL
 PAL and ES from Chapter NR 140 for Groundwater Quality from Wisconsin Admin Code (Feb 2017)
 Lab comments can be found in associated laboratory reports.

< = Concentration is less than the Limit of Detection (LOD)
 µg/L = micrograms per liter
 BTEX = Benzene, Toluene, Ethylbenzene and Xylene
 Dup = Quality Control Field Duplicate Sample
 ES = Enforcement Standard

J = Concentration Estimated
 NS = No Standard
 PAH = Polycyclic Aromatic Hydrocarbon
 PAL = Preventive Action Limit
 U = Concentration was not detected above the reported limit



Table 1. Groundwater Analytical Results for the City of Marinette

October 2018 Sample Results Notification
 Wisconsin Public Service Corporation - Former Marinette Manufactured Gas Plant
 Marinette, Wisconsin
 BRRTS# 0238000047
 CERCLIS ID - WIN000509952

9-digit Code	Station Name	Sample Date	Metal		Metal		Metal		Metal		Metal		Metal		Metal		Metal		Inorganic		Inorganic		Inorganic		Organic			
			Aluminum, Dissolved	Antimony, Dissolved	Copper, Dissolved	Iron, Dissolved	Manganese, Dissolved	Nickel, Dissolved	Silver, Dissolved	Vanadium, Dissolved	Zinc, Dissolved	Alkalinity, Total	Nitrogen, NO2 + NO3, Total	Sulfate, Total	Methane													
Reporting Units:			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
			Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag		
WI Groundwater ES:			200		6		1,300		300		50		100		50		30		5,000		NS		10,000		250,000		NS	
WI Groundwater PAL:			<u>40</u>		<u>1.2</u>		<u>130</u>		<u>150</u>		<u>25</u>		<u>20</u>		<u>10</u>		<u>6</u>		<u>2,500</u>		NS		<u>2,000</u>		<u>125,000</u>		NS	
100918016	MW01R	10/09/2018	< 117	U	< 0.30	U	< 2.2	U	8,170		739		< 0.80	U	< 0.20	U	1.2	J	12.2	J	419,000		< 95	U	1,000	J	8,190	
100918012	MW03R	10/09/2018	< 117	U	<u>1.2</u>	J	27.8		< 221	U	20.6		2.7	J	< 0.20	U	1.7	J	31.2		309,000		<u>3,700</u>		52,500		32.9	
100818008	MW05	10/08/2018	< 117	U	< 0.30	U	< 2.2	U	< 221	U	459		1.2	J	< 0.20	U	< 0.63	U	< 9.2	U	203,000		<u>3,800</u>		68,600		< 1.4	U
100818002	MW302	10/08/2018	< 117	U	0.47	J	6.4	J	< 221	U	< 5.4	U	1.4	J	< 0.20	U	0.65	J	13.8	J	279,000		<u>4,500</u>		62,100		< 1.4	U
100818006	MW303	10/08/2018	< 117	U	0.68	J	4.6	J	3,690		1,920		3.0		< 0.20	U	1.5	J	15.1	J	506,000		< 95	U	34,400		617	
100818004	MW304	10/08/2018	< 117	U	<u>1.5</u>	J	< 2.2	U	412	J	3,520		3.2		< 0.20	U	1.1	J	10.9	J	445,000		630		59,300		531	
100818005	MW304-Dup	10/08/2018	< 117	U	<u>1.6</u>	J	< 2.2	U	428	J	3,420		2.9		< 0.20	U	1.1	J	< 9.2	U	446,000		720		58,600		506	
100818001	MW305	10/08/2018	< 117	U	< 0.30	U	2.4	J	< 221	U	< 5.4	U	1.4	J	< 0.20	U	< 0.63	U	16.6	J	252,000		<u>5,200</u>		83,800		< 1.4	U
100918018	MW307R	10/09/2018	< 117	U	< 0.30	U	3.8	J	17,800		171		1.5	J	< 0.20	U	< 0.63	U	13.1	J	252,000		< 95	U	8,400	J	4,850	
100918019	MW307R-Dup	10/09/2018	< 117	U	< 0.30	U	< 2.2	U	17,800		172		1.7	J	< 0.20	U	< 0.63	U	10.1	J	260,000		< 95	U	8,400	J	4,780	
100918010	MW308	10/09/2018	< 117	U	< 0.30	U	< 2.2	U	< 221	U	< 5.4	U	< 0.80	U	< 0.20	U	< 0.63	U	16.8	J	673,000		250		398,000		20.3	
100918020	MW310	10/09/2018	< 117	U	< 0.30	U	< 2.2	U	16,200		916		< 0.80	U	< 0.20	U	2.1		10	J	566,000		< 95	U	78,700		1,400	
100918021	MW311	10/09/2018	< 117	U	0.53	J	4.5	J	36,400		968		1.3	J	0.20	J	3.4		16.6	J	810,000		< 95	U	< 5,000	U	8,660	
100918017	MW312	10/09/2018	< 117	U	< 0.30	U	< 2.2	U	15,400		823		< 0.80	U	< 0.20	U	0.83	J	< 9.2	U	793,000		< 95	U	< 1,000	U	11,200	
100818007	MW313	10/08/2018	< 117	U	< 0.30	U	< 2.2	U	11,300		719		6.4		< 0.20	U	3.8		12.4	J	437,000		< 95	U	28,700		4,530	
100818003	P302	10/08/2018	< 117	U	< 0.30	U	< 2.2	U	3,220		536		< 0.80	U	< 0.20	U	1.3	J	10.3	J	272,000		< 95	U	58,100		33.3	
100918013	P303	10/09/2018	< 117	U	< 0.30	U	< 2.2	U	< 221	U	< 5.4	U	< 0.80	U	< 0.20	U	0.81	J	10.6	J	144,000		290		976,000		< 1.4	U
100918014	P304	10/09/2018	< 117	U	< 0.30	U	< 2.2	U	395	J	<u>39.5</u>		1.2	J	< 0.20	U	< 0.63	U	11.6	J	189,000		<u>2,600</u>		625,000		< 1.4	U
100918011	P305	10/09/2018	< 117	U	< 0.30	U	< 2.2	U	2,370		505		0.80	J	< 0.20	U	1.9	J	16.3	J	453,000		< 95	U	12,500		163	

[O:MGP 12/6/18][C:ECK 12/6/18]

Notes

BOLD = concentration that attains or exceeds WDNR ES
 Underline = concentration that attains or exceeds WDNR PAL

PAL and ES from Chapter NR 140 for Groundwater Quality from Wisconsin Admin Code (Feb 2017)
 Lab comments can be found in associated laboratory reports.

< = Concentration is less than the Limit of Detection (LOD)
 µg/L = micrograms per liter
 BTEX = Benzene, Toluene, Ethylbenzene and Xylene
 Dup = Quality Control Field Duplicate Sample
 ES = Enforcement Standard

J = Concentration Estimated
 NS = No Standard
 PAH = Polycyclic Aromatic Hydrocarbon
 PAL = Preventive Action Limit
 U = Concentration was not detected above the reported limit



LABORATORY DATA REPORTS

October 24, 2018

Brian Hennings
OBG
234 W. Florida St, 5th Floor
Milwaukee, WI 53204

RE: Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

Dear Brian Hennings:

Enclosed are the analytical results for sample(s) received by the laboratory on October 10, 2018. 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

cc: NRT Data, OBG



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

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: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40177402001	100818001	Water	10/08/18 13:07	10/10/18 11:02
40177402002	100818002	Water	10/08/18 13:49	10/10/18 11:02
40177402003	100818003	Water	10/08/18 14:19	10/10/18 11:02
40177402004	100818004	Water	10/08/18 14:56	10/10/18 11:02
40177402005	100818005	Water	10/08/18 15:01	10/10/18 11:02
40177402006	100818006	Water	10/08/18 15:34	10/10/18 11:02
40177402007	100818007	Water	10/08/18 16:21	10/10/18 11:02
40177402008	100818008	Water	10/08/18 17:03	10/10/18 11:02
40177402009	100818009	Water	10/08/18 17:30	10/10/18 11:02
40177402010	100918010	Water	10/09/18 08:58	10/10/18 11:02
40177402011	100918011	Water	10/09/18 09:48	10/10/18 11:02
40177402012	100918012	Water	10/09/18 10:39	10/10/18 11:02
40177402013	100918013	Water	10/09/18 11:00	10/10/18 11:02
40177402014	100918014	Water	10/09/18 11:30	10/10/18 11:02
██████████	██████████	██████████	██████████	██████████
40177402016	100918016	Water	10/09/18 13:01	10/10/18 11:02
40177402017	100918017	Water	10/09/18 13:44	10/10/18 11:02
40177402018	100918018	Water	10/09/18 14:36	10/10/18 11:02
40177402019	100918019	Water	10/09/18 14:41	10/10/18 11:02
40177402020	100918020	Water	10/09/18 15:29	10/10/18 11:02
40177402021	100918021	Water	10/09/18 16:05	10/10/18 11:02
40177402022	100918022	Water	10/09/18 16:35	10/10/18 11:02
40177402023	100918023	Water	10/09/18 00:00	10/10/18 11:02

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40177402001	100818001	EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
40177402002	100818002	EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
40177402003	100818003	EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
40177402004	100818004	EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
40177402005	100818005	EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
40177402006	100818006	EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G

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SAMPLE ANALYTE COUNT

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40177402007	100818007	EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
40177402008	100818008	EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
40177402009	100818009	EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
40177402010	100918010	EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
40177402011	100918011	EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G

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SAMPLE ANALYTE COUNT

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40177402012	100918012	EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
40177402013	100918013	EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
40177402014	100918014	EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
[REDACTED]	[REDACTED]	EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
40177402016	100918016	EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 310.2	DAW	1	PASI-G

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SAMPLE ANALYTE COUNT

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40177402017	100918017	EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40177402018	100918018	EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40177402019	100918019	EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40177402020	100918020	EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40177402021	100918021	EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G
		EPA 6020	KXS	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40177402022	100918022	EPA 353.2	DAW	1	PASI-G
		EPA 8015B Modified	ALD	1	PASI-G

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SAMPLE ANALYTE COUNT

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	KXS	9	PASI-G
		EPA 8270 by HVI	TPO	12	PASI-G
		EPA 8260	LAP	9	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
		EPA 353.2	DAW	1	PASI-G
40177402023	100918023	EPA 8015B Modified	ALD	1	PASI-G
		EPA 8260	LAP	9	PASI-G

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

Method: EPA 8015B Modified
Description: Methane, Ethane, Ethene GCV
Client: O'Brien & Gere Engineers, Inc Integrys WI
Date: October 24, 2018

General Information:

23 samples were analyzed for EPA 8015B Modified. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 303293

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40177402006

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1771517)
 - Methane
- MSD (Lab ID: 1771518)
 - Methane

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

Method: EPA 6020
Description: 6020 MET ICPMS, Dissolved
Client: O'Brien & Gere Engineers, Inc Integrys WI
Date: October 24, 2018

General Information:

22 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 302986

- B: Analyte was detected in the associated method blank.
- BLANK for HBN 302986 [MPRP/187 (Lab ID: 1769738)]
 - Zinc, Dissolved

QC Batch: 303722

- B: Analyte was detected in the associated method blank.
- BLANK for HBN 303722 [MPRP/188 (Lab ID: 1774055)]
 - Zinc, Dissolved

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Method: EPA 6020

Description: 6020 MET ICPMS, Dissolved

Client: O'Brien & Gere Engineers, Inc Integrys WI

Date: October 24, 2018

Analyte Comments:

QC Batch: 302986

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

- 100818001 (Lab ID: 40177402001)

- Silver, Dissolved
- Aluminum, Dissolved
- Copper, Dissolved
- Iron, Dissolved
- Manganese, Dissolved
- Nickel, Dissolved
- Antimony, Dissolved
- Vanadium, Dissolved
- Zinc, Dissolved

- 100818002 (Lab ID: 40177402002)

- Silver, Dissolved
- Aluminum, Dissolved
- Copper, Dissolved
- Iron, Dissolved
- Manganese, Dissolved
- Nickel, Dissolved
- Antimony, Dissolved
- Vanadium, Dissolved
- Zinc, Dissolved

- 100818003 (Lab ID: 40177402003)

- Silver, Dissolved
- Aluminum, Dissolved
- Copper, Dissolved
- Nickel, Dissolved
- Antimony, Dissolved
- Vanadium, Dissolved
- Zinc, Dissolved

- 100818004 (Lab ID: 40177402004)

- Silver, Dissolved
- Aluminum, Dissolved
- Copper, Dissolved
- Iron, Dissolved
- Antimony, Dissolved
- Vanadium, Dissolved
- Zinc, Dissolved

- 100818005 (Lab ID: 40177402005)

- Silver, Dissolved
- Aluminum, Dissolved
- Copper, Dissolved
- Iron, Dissolved
- Antimony, Dissolved
- Vanadium, Dissolved

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Method: EPA 6020

Description: 6020 MET ICPMS, Dissolved

Client: O'Brien & Gere Engineers, Inc Integrys WI

Date: October 24, 2018

Analyte Comments:

QC Batch: 302986

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

- 100818005 (Lab ID: 40177402005)
 - Zinc, Dissolved
- 100818006 (Lab ID: 40177402006)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved
- 100818007 (Lab ID: 40177402007)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Antimony, Dissolved
 - Zinc, Dissolved
- 100818008 (Lab ID: 40177402008)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Iron, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved
- 100918010 (Lab ID: 40177402010)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Iron, Dissolved
 - Manganese, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved
- 100918011 (Lab ID: 40177402011)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

Method: EPA 6020
Description: 6020 MET ICPMS, Dissolved
Client: O'Brien & Gere Engineers, Inc Integrys WI
Date: October 24, 2018

Analyte Comments:

QC Batch: 302986

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

- 100918012 (Lab ID: 40177402012)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Iron, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
- 100918013 (Lab ID: 40177402013)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Iron, Dissolved
 - Manganese, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved
- 100918014 (Lab ID: 40177402014)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Iron, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved



- 100918016 (Lab ID: 40177402016)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved
- 100918017 (Lab ID: 40177402017)
 - Silver, Dissolved

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Method: EPA 6020

Description: 6020 MET ICPMS, Dissolved

Client: O'Brien & Gere Engineers, Inc Integrys WI

Date: October 24, 2018

Analyte Comments:

QC Batch: 302986

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

- 100918017 (Lab ID: 40177402017)
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved
- 100918018 (Lab ID: 40177402018)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved
- 100918019 (Lab ID: 40177402019)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Vanadium, Dissolved
 - Zinc, Dissolved
- 100918020 (Lab ID: 40177402020)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Zinc, Dissolved

QC Batch: 303722

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

- 100918021 (Lab ID: 40177402021)
 - Silver, Dissolved
 - Aluminum, Dissolved
 - Copper, Dissolved
 - Nickel, Dissolved
 - Antimony, Dissolved
 - Zinc, Dissolved

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Method: EPA 8270 by HVI

Description: 8270 MSSV PAH by HVI

Client: O'Brien & Gere Engineers, Inc Integrys WI

Date: October 24, 2018

General Information:

22 samples were analyzed for EPA 8270 by HVI. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 303212

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

- BLANK (Lab ID: 1771248)
- Terphenyl-d14 (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 303212

B: Analyte was detected in the associated method blank.

- BLANK for HBN 303212 [OEXT/406 (Lab ID: 1771248)
- Benzo(b)fluoranthene

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 303212

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Method: EPA 8270 by HVI

Description: 8270 MSSV PAH by HVI

Client: O'Brien & Gere Engineers, Inc Integrys WI

Date: October 24, 2018

QC Batch: 303276

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

Method: EPA 8260
Description: 8260 MSV UST
Client: O'Brien & Gere Engineers, Inc Integrys WI
Date: October 24, 2018

General Information:

23 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 302884

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40177402006

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1769062)
 - Ethylbenzene
 - Toluene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1769062)
 - Benzene
 - Ethylbenzene
 - Toluene
 - m&p-Xylene
 - o-Xylene

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Method: EPA 8260

Description: 8260 MSV UST

Client: O'Brien & Gere Engineers, Inc Integrys WI

Date: October 24, 2018

QC Batch: 303005

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40177402015

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1770718)
 - o-Xylene
- MSD (Lab ID: 1770719)
 - o-Xylene

Additional Comments:

Analyte Comments:

QC Batch: 303005

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

- 100918021 (Lab ID: 40177402021)
 - Dibromofluoromethane (S)

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

Method: EPA 300.0
Description: 300.0 IC Anions 28 Days
Client: O'Brien & Gere Engineers, Inc Integrys WI
Date: October 24, 2018

General Information:

22 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 303197

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40177402006,40177530001

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

- MSD (Lab ID: 1771186)
 - Sulfate

Additional Comments:

Analyte Comments:

QC Batch: 303387

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

- 100918018 (Lab ID: 40177402018)
 - Sulfate
- 100918019 (Lab ID: 40177402019)
 - Sulfate
- 100918021 (Lab ID: 40177402021)
 - Sulfate

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Method: EPA 310.2

Description: 310.2 Alkalinity

Client: O'Brien & Gere Engineers, Inc Integrys WI

Date: October 24, 2018

General Information:

22 samples were analyzed for EPA 310.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 303184

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40177208002,40177402006

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

- MSD (Lab ID: 1771057)
- Alkalinity, Total as CaCO₃

QC Batch: 303323

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40177467001

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

- MSD (Lab ID: 1771628)
- Alkalinity, Total as CaCO₃

Additional Comments:

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PROJECT NARRATIVE

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

Method: EPA 353.2
Description: 353.2 Nitrogen, NO2/NO3 pres.
Client: O'Brien & Gere Engineers, Inc Integrys WI
Date: October 24, 2018

General Information:

22 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 303020

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40177402006,40177402021

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

- MS (Lab ID: 1769848)
 - Nitrogen, NO2 plus NO3
- MSD (Lab ID: 1769849)
 - Nitrogen, NO2 plus NO3

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818001 Lab ID: 40177402001 Collected: 10/08/18 13:07 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	<1.4	ug/L	2.8	1.4	1		10/16/18 10:33	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 05:10	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 05:10	7440-36-0	D3
Copper, Dissolved	2.4J	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 05:10	7440-50-8	D3
Iron, Dissolved	<221	ug/L	737	221	2	10/12/18 06:51	10/20/18 05:10	7439-89-6	D3
Manganese, Dissolved	<5.4	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 05:10	7439-96-5	D3
Nickel, Dissolved	1.4J	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 05:10	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 05:10	7440-22-4	D3
Vanadium, Dissolved	<0.63	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 05:10	7440-62-2	D3
Zinc, Dissolved	16.6J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 05:10	7440-66-6	B,D3
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	<0.011	ug/L	0.053	0.011	1	10/15/18 16:16	10/16/18 15:32	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.054	0.011	1	10/15/18 16:16	10/16/18 15:32	50-32-8	
Benzo(b)fluoranthene	0.0069J	ug/L	0.029	0.0059	1	10/15/18 16:16	10/16/18 15:32	205-99-2	B
Benzo(g,h,i)perylene	<0.0069	ug/L	0.035	0.0069	1	10/15/18 16:16	10/16/18 15:32	191-24-2	
Chrysene	<0.013	ug/L	0.067	0.013	1	10/15/18 16:16	10/16/18 15:32	218-01-9	
Fluoranthene	<0.011	ug/L	0.054	0.011	1	10/15/18 16:16	10/16/18 15:32	206-44-0	
Fluorene	<0.0081	ug/L	0.041	0.0081	1	10/15/18 16:16	10/16/18 15:32	86-73-7	
Naphthalene	<0.019	ug/L	0.094	0.019	1	10/15/18 16:16	10/16/18 15:32	91-20-3	
Phenanthrene	<0.014	ug/L	0.070	0.014	1	10/15/18 16:16	10/16/18 15:32	85-01-8	
Pyrene	<0.0078	ug/L	0.039	0.0078	1	10/15/18 16:16	10/16/18 15:32	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	56	%	29-80		1	10/15/18 16:16	10/16/18 15:32	321-60-8	
Terphenyl-d14 (S)	90	%	10-123		1	10/15/18 16:16	10/16/18 15:32	1718-51-0	
8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 22:15	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 22:15	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 22:15	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 22:15	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 22:15	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 22:15	95-47-6	
Surrogates									
Dibromofluoromethane (S)	102	%	70-130		1		10/11/18 22:15	1868-53-7	
Toluene-d8 (S)	104	%	70-130		1		10/11/18 22:15	2037-26-5	
4-Bromofluorobenzene (S)	86	%	70-130		1		10/11/18 22:15	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	83.8	mg/L	15.0	5.0	5		10/18/18 11:23	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	252	mg/L	23.5	7.0	1		10/15/18 13:35		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818001 **Lab ID: 40177402001** Collected: 10/08/18 13:07 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2

Nitrogen, NO2 plus NO3	5.2	mg/L	0.25	0.095	1		10/11/18 14:02		
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Sample: 100818002 **Lab ID: 40177402002** Collected: 10/08/18 13:49 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified

Methane	<1.4	ug/L	2.8	1.4	1		10/16/18 10:40	74-82-8	
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6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010

Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 05:24	7429-90-5	D3
Antimony, Dissolved	0.47J	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 05:24	7440-36-0	D3
Copper, Dissolved	6.4J	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 05:24	7440-50-8	D3
Iron, Dissolved	<221	ug/L	737	221	2	10/12/18 06:51	10/20/18 05:24	7439-89-6	D3
Manganese, Dissolved	<5.4	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 05:24	7439-96-5	D3
Nickel, Dissolved	1.4J	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 05:24	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 05:24	7440-22-4	D3
Vanadium, Dissolved	0.65J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 05:24	7440-62-2	D3
Zinc, Dissolved	13.8J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 05:24	7440-66-6	B,D3

8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510

Anthracene	0.017J	ug/L	0.055	0.011	1	10/15/18 16:16	10/16/18 15:51	120-12-7	
Benzo(a)pyrene	0.011J	ug/L	0.055	0.011	1	10/15/18 16:16	10/16/18 15:51	50-32-8	
Benzo(b)fluoranthene	0.018J	ug/L	0.030	0.0060	1	10/15/18 16:16	10/16/18 15:51	205-99-2	
Benzo(g,h,i)perylene	0.014J	ug/L	0.036	0.0071	1	10/15/18 16:16	10/16/18 15:51	191-24-2	
Chrysene	0.015J	ug/L	0.069	0.014	1	10/15/18 16:16	10/16/18 15:51	218-01-9	
Fluoranthene	0.017J	ug/L	0.056	0.011	1	10/15/18 16:16	10/16/18 15:51	206-44-0	
Fluorene	<0.0084	ug/L	0.042	0.0084	1	10/15/18 16:16	10/16/18 15:51	86-73-7	
Naphthalene	<0.019	ug/L	0.096	0.019	1	10/15/18 16:16	10/16/18 15:51	91-20-3	
Phenanthrene	<0.015	ug/L	0.073	0.015	1	10/15/18 16:16	10/16/18 15:51	85-01-8	
Pyrene	0.022J	ug/L	0.040	0.0081	1	10/15/18 16:16	10/16/18 15:51	129-00-0	

Surrogates

2-Fluorobiphenyl (S)	58	%	29-80		1	10/15/18 16:16	10/16/18 15:51	321-60-8	
Terphenyl-d14 (S)	85	%	10-123		1	10/15/18 16:16	10/16/18 15:51	1718-51-0	

8260 MSV UST Analytical Method: EPA 8260

Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 22:37	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 22:37	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 22:37	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 22:37	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 22:37	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 22:37	95-47-6	

Surrogates

Dibromofluoromethane (S)	102	%	70-130		1		10/11/18 22:37	1868-53-7	
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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818002 Lab ID: 40177402002 Collected: 10/08/18 13:49 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST Analytical Method: EPA 8260									
<i>Surrogates</i>									
Toluene-d8 (S)	106	%	70-130		1		10/11/18 22:37	2037-26-5	
4-Bromofluorobenzene (S)	86	%	70-130		1		10/11/18 22:37	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	62.1	mg/L	15.0	5.0	5		10/18/18 11:36	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	279	mg/L	23.5	7.0	1		10/15/18 13:36		
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	4.5	mg/L	0.25	0.095	1		10/11/18 14:03		

Sample: 100818003 Lab ID: 40177402003 Collected: 10/08/18 14:19 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	33.3	ug/L	2.8	1.4	1		10/16/18 10:47	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<0.117	ug/L	500	117	2	10/12/18 06:51	10/20/18 05:44	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 05:44	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 05:44	7440-50-8	D3
Iron, Dissolved	3220	ug/L	737	221	2	10/12/18 06:51	10/20/18 05:44	7439-89-6	
Manganese, Dissolved	536	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 05:44	7439-96-5	
Nickel, Dissolved	<0.80	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 05:44	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 05:44	7440-22-4	D3
Vanadium, Dissolved	1.3J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 05:44	7440-62-2	D3
Zinc, Dissolved	10.3J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 05:44	7440-66-6	B,D3
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	<0.011	ug/L	0.056	0.011	1	10/15/18 16:16	10/16/18 16:09	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.057	0.011	1	10/15/18 16:16	10/16/18 16:09	50-32-8	
Benzo(b)fluoranthene	<0.0062	ug/L	0.031	0.0062	1	10/15/18 16:16	10/16/18 16:09	205-99-2	
Benzo(g,h,i)perylene	<0.0073	ug/L	0.036	0.0073	1	10/15/18 16:16	10/16/18 16:09	191-24-2	
Chrysene	<0.014	ug/L	0.070	0.014	1	10/15/18 16:16	10/16/18 16:09	218-01-9	
Fluoranthene	<0.011	ug/L	0.057	0.011	1	10/15/18 16:16	10/16/18 16:09	206-44-0	
Fluorene	<0.0086	ug/L	0.043	0.0086	1	10/15/18 16:16	10/16/18 16:09	86-73-7	
Naphthalene	<0.020	ug/L	0.099	0.020	1	10/15/18 16:16	10/16/18 16:09	91-20-3	
Phenanthrene	<0.015	ug/L	0.074	0.015	1	10/15/18 16:16	10/16/18 16:09	85-01-8	
Pyrene	<0.0082	ug/L	0.041	0.0082	1	10/15/18 16:16	10/16/18 16:09	129-00-0	
<i>Surrogates</i>									
2-Fluorobiphenyl (S)	62	%	29-80		1	10/15/18 16:16	10/16/18 16:09	321-60-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818003									
Lab ID: 40177402003									
Collected: 10/08/18 14:19 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI									
Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Surrogates									
Terphenyl-d14 (S)	95	%	10-123		1	10/15/18 16:16	10/16/18 16:09	1718-51-0	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 23:00	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 23:00	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 23:00	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 23:00	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 23:00	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 23:00	95-47-6	
Surrogates									
Dibromofluoromethane (S)	102	%	70-130		1		10/11/18 23:00	1868-53-7	
Toluene-d8 (S)	105	%	70-130		1		10/11/18 23:00	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		10/11/18 23:00	460-00-4	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0									
Sulfate	58.1	mg/L	30.0	10.0	10		10/18/18 11:49	14808-79-8	
310.2 Alkalinity									
Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	272	mg/L	23.5	7.0	1		10/15/18 13:36		
353.2 Nitrogen, NO2/NO3 pres.									
Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/11/18 14:05		

Sample: 100818004									
Lab ID: 40177402004									
Collected: 10/08/18 14:56 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV									
Analytical Method: EPA 8015B Modified									
Methane	531	ug/L	5.6	2.7	2		10/16/18 13:05	74-82-8	
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 05:51	7429-90-5	D3
Antimony, Dissolved	1.5J	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 05:51	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 05:51	7440-50-8	D3
Iron, Dissolved	412J	ug/L	737	221	2	10/12/18 06:51	10/20/18 05:51	7439-89-6	D3
Manganese, Dissolved	3520	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 05:51	7439-96-5	
Nickel, Dissolved	3.2	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 05:51	7440-02-0	
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 05:51	7440-22-4	D3
Vanadium, Dissolved	1.1J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 05:51	7440-62-2	D3
Zinc, Dissolved	10.9J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 05:51	7440-66-6	B,D3

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818004 Lab ID: 40177402004 Collected: 10/08/18 14:56 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI									
Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	0.059	ug/L	0.052	0.010	1	10/15/18 16:16	10/16/18 16:28	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.053	0.011	1	10/15/18 16:16	10/16/18 16:28	50-32-8	
Benzo(b)fluoranthene	<0.0057	ug/L	0.029	0.0057	1	10/15/18 16:16	10/16/18 16:28	205-99-2	
Benzo(g,h,i)perylene	<0.0068	ug/L	0.034	0.0068	1	10/15/18 16:16	10/16/18 16:28	191-24-2	
Chrysene	<0.013	ug/L	0.065	0.013	1	10/15/18 16:16	10/16/18 16:28	218-01-9	
Fluoranthene	0.035J	ug/L	0.053	0.011	1	10/15/18 16:16	10/16/18 16:28	206-44-0	
Fluorene	0.046	ug/L	0.040	0.0080	1	10/15/18 16:16	10/16/18 16:28	86-73-7	
Naphthalene	<0.018	ug/L	0.092	0.018	1	10/15/18 16:16	10/16/18 16:28	91-20-3	
Phenanthrene	0.024J	ug/L	0.069	0.014	1	10/15/18 16:16	10/16/18 16:28	85-01-8	
Pyrene	0.017J	ug/L	0.038	0.0076	1	10/15/18 16:16	10/16/18 16:28	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	52	%	29-80		1	10/15/18 16:16	10/16/18 16:28	321-60-8	
Terphenyl-d14 (S)	74	%	10-123		1	10/15/18 16:16	10/16/18 16:28	1718-51-0	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	8.3	ug/L	1.0	0.25	1		10/11/18 23:23	71-43-2	
Ethylbenzene	0.93J	ug/L	1.0	0.22	1		10/11/18 23:23	100-41-4	
Toluene	0.66J	ug/L	5.0	0.17	1		10/11/18 23:23	108-88-3	
Xylene (Total)	2.5J	ug/L	3.0	1.5	1		10/11/18 23:23	1330-20-7	
m&p-Xylene	1.1J	ug/L	2.0	0.47	1		10/11/18 23:23	179601-23-1	
o-Xylene	1.4	ug/L	1.0	0.26	1		10/11/18 23:23	95-47-6	
Surrogates									
Dibromofluoromethane (S)	102	%	70-130		1		10/11/18 23:23	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1		10/11/18 23:23	2037-26-5	
4-Bromofluorobenzene (S)	86	%	70-130		1		10/11/18 23:23	460-00-4	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0									
Sulfate	59.3	mg/L	3.0	1.0	1		10/18/18 14:09	14808-79-8	
310.2 Alkalinity									
Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	445	mg/L	47.0	14.1	2		10/15/18 14:31		
353.2 Nitrogen, NO2/NO3 pres.									
Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	0.63	mg/L	0.25	0.095	1		10/11/18 14:06		

Sample: 100818005 Lab ID: 40177402005 Collected: 10/08/18 15:01 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV									
Analytical Method: EPA 8015B Modified									
Methane	506	ug/L	5.6	2.7	2		10/16/18 13:13	74-82-8	
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 05:58	7429-90-5	D3

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818005 **Lab ID: 40177402005** Collected: 10/08/18 15:01 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Antimony, Dissolved	1.6J	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 05:58	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 05:58	7440-50-8	D3
Iron, Dissolved	428J	ug/L	737	221	2	10/12/18 06:51	10/20/18 05:58	7439-89-6	D3
Manganese, Dissolved	3420	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 05:58	7439-96-5	
Nickel, Dissolved	2.9	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 05:58	7440-02-0	
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 05:58	7440-22-4	D3
Vanadium, Dissolved	1.1J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 05:58	7440-62-2	D3
Zinc, Dissolved	<9.2	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 05:58	7440-66-6	D3
8270 MSSV PAH by HVI									
Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	0.084	ug/L	0.055	0.011	1	10/15/18 09:16	10/15/18 19:16	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.055	0.011	1	10/15/18 09:16	10/15/18 19:16	50-32-8	
Benzo(b)fluoranthene	<0.0060	ug/L	0.030	0.0060	1	10/15/18 09:16	10/15/18 19:16	205-99-2	
Benzo(g,h,i)perylene	<0.0071	ug/L	0.036	0.0071	1	10/15/18 09:16	10/15/18 19:16	191-24-2	
Chrysene	<0.014	ug/L	0.069	0.014	1	10/15/18 09:16	10/15/18 19:16	218-01-9	
Fluoranthene	0.046J	ug/L	0.056	0.011	1	10/15/18 09:16	10/15/18 19:16	206-44-0	
Fluorene	0.071	ug/L	0.042	0.0084	1	10/15/18 09:16	10/15/18 19:16	86-73-7	
Naphthalene	<0.019	ug/L	0.096	0.019	1	10/15/18 09:16	10/15/18 19:16	91-20-3	
Phenanthrene	0.033J	ug/L	0.073	0.015	1	10/15/18 09:16	10/15/18 19:16	85-01-8	
Pyrene	0.024J	ug/L	0.040	0.0081	1	10/15/18 09:16	10/15/18 19:16	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	62	%	29-80		1	10/15/18 09:16	10/15/18 19:16	321-60-8	
Terphenyl-d14 (S)	89	%	10-123		1	10/15/18 09:16	10/15/18 19:16	1718-51-0	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	11.1	ug/L	1.0	0.25	1		10/11/18 23:45	71-43-2	
Ethylbenzene	1.2	ug/L	1.0	0.22	1		10/11/18 23:45	100-41-4	
Toluene	0.88J	ug/L	5.0	0.17	1		10/11/18 23:45	108-88-3	
Xylene (Total)	3.1	ug/L	3.0	1.5	1		10/11/18 23:45	1330-20-7	
m&p-Xylene	1.2J	ug/L	2.0	0.47	1		10/11/18 23:45	179601-23-1	
o-Xylene	1.9	ug/L	1.0	0.26	1		10/11/18 23:45	95-47-6	
Surrogates									
Dibromofluoromethane (S)	106	%	70-130		1		10/11/18 23:45	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1		10/11/18 23:45	2037-26-5	
4-Bromofluorobenzene (S)	88	%	70-130		1		10/11/18 23:45	460-00-4	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0									
Sulfate	58.6	mg/L	3.0	1.0	1		10/18/18 14:23	14808-79-8	
310.2 Alkalinity									
Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	446	mg/L	47.0	14.1	2		10/15/18 14:32		
353.2 Nitrogen, NO2/NO3 pres.									
Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	0.72	mg/L	0.25	0.095	1		10/12/18 11:02		

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818006 **Lab ID: 40177402006** Collected: 10/08/18 15:34 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	617	ug/L	11.2	5.5	4		10/16/18 13:19	74-82-8	M1
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 04:42	7429-90-5	D3
Antimony, Dissolved	0.68J	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 04:42	7440-36-0	D3
Copper, Dissolved	4.6J	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 04:42	7440-50-8	D3
Iron, Dissolved	3690	ug/L	737	221	2	10/12/18 06:51	10/20/18 04:42	7439-89-6	
Manganese, Dissolved	1920	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 04:42	7439-96-5	
Nickel, Dissolved	3.0	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 04:42	7440-02-0	
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 04:42	7440-22-4	D3
Vanadium, Dissolved	1.5J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 04:42	7440-62-2	D3
Zinc, Dissolved	15.1J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 04:42	7440-66-6	B,D3
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	0.028J	ug/L	0.054	0.011	1	10/15/18 09:16	10/15/18 13:11	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.055	0.011	1	10/15/18 09:16	10/15/18 13:11	50-32-8	
Benzo(b)fluoranthene	<0.0060	ug/L	0.030	0.0060	1	10/15/18 09:16	10/15/18 13:11	205-99-2	
Benzo(g,h,i)perylene	<0.0071	ug/L	0.035	0.0071	1	10/15/18 09:16	10/15/18 13:11	191-24-2	
Chrysene	<0.014	ug/L	0.068	0.014	1	10/15/18 09:16	10/15/18 13:11	218-01-9	
Fluoranthene	<0.011	ug/L	0.056	0.011	1	10/15/18 09:16	10/15/18 13:11	206-44-0	
Fluorene	<0.0083	ug/L	0.042	0.0083	1	10/15/18 09:16	10/15/18 13:11	86-73-7	
Naphthalene	<0.019	ug/L	0.095	0.019	1	10/15/18 09:16	10/15/18 13:11	91-20-3	
Phenanthrene	<0.014	ug/L	0.072	0.014	1	10/15/18 09:16	10/15/18 13:11	85-01-8	
Pyrene	0.032J	ug/L	0.040	0.0080	1	10/15/18 09:16	10/15/18 13:11	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	60	%	29-80		1	10/15/18 09:16	10/15/18 13:11	321-60-8	
Terphenyl-d14 (S)	85	%	10-123		1	10/15/18 09:16	10/15/18 13:11	1718-51-0	
8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 20:22	71-43-2	R1
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 20:22	100-41-4	M1,R1
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 20:22	108-88-3	M1,R1
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 20:22	1330-20-7	RS
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 20:22	179601-23-1	R1
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 20:22	95-47-6	R1
Surrogates									
Dibromofluoromethane (S)	101	%	70-130		1		10/11/18 20:22	1868-53-7	
Toluene-d8 (S)	109	%	70-130		1		10/11/18 20:22	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		10/11/18 20:22	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	34.4	mg/L	3.0	1.0	1		10/18/18 14:37	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	506	mg/L	117	35.2	5		10/15/18 13:38		M0

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818006 Lab ID: 40177402006 Collected: 10/08/18 15:34 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:04		

Sample: 100818007 Lab ID: 40177402007 Collected: 10/08/18 16:21 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	4530	ug/L	56.0	27.4	20		10/16/18 13:26	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<0.117	ug/L	500	117	2	10/12/18 06:51	10/20/18 06:05	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 06:05	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 06:05	7440-50-8	D3
Iron, Dissolved	11300	ug/L	737	221	2	10/12/18 06:51	10/20/18 06:05	7439-89-6	
Manganese, Dissolved	719	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 06:05	7439-96-5	
Nickel, Dissolved	6.4	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 06:05	7440-02-0	
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 06:05	7440-22-4	D3
Vanadium, Dissolved	3.8	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 06:05	7440-62-2	
Zinc, Dissolved	12.4J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 06:05	7440-66-6	B,D3

8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	0.017J	ug/L	0.054	0.011	1	10/15/18 09:16	10/15/18 18:02	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.055	0.011	1	10/15/18 09:16	10/15/18 18:02	50-32-8	
Benzo(b)fluoranthene	0.016J	ug/L	0.030	0.0060	1	10/15/18 09:16	10/15/18 18:02	205-99-2	
Benzo(g,h,i)perylene	0.013J	ug/L	0.035	0.0071	1	10/15/18 09:16	10/15/18 18:02	191-24-2	
Chrysene	<0.014	ug/L	0.068	0.014	1	10/15/18 09:16	10/15/18 18:02	218-01-9	
Fluoranthene	0.016J	ug/L	0.056	0.011	1	10/15/18 09:16	10/15/18 18:02	206-44-0	
Fluorene	0.017J	ug/L	0.042	0.0083	1	10/15/18 09:16	10/15/18 18:02	86-73-7	
Naphthalene	0.027J	ug/L	0.095	0.019	1	10/15/18 09:16	10/15/18 18:02	91-20-3	
Phenanthrene	<0.014	ug/L	0.072	0.014	1	10/15/18 09:16	10/15/18 18:02	85-01-8	
Pyrene	0.020J	ug/L	0.040	0.0080	1	10/15/18 09:16	10/15/18 18:02	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	53	%	29-80		1	10/15/18 09:16	10/15/18 18:02	321-60-8	
Terphenyl-d14 (S)	77	%	10-123		1	10/15/18 09:16	10/15/18 18:02	1718-51-0	

8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 20:45	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 20:45	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 20:45	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 20:45	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 20:45	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 20:45	95-47-6	
Surrogates									
Dibromofluoromethane (S)	103	%	70-130		1		10/11/18 20:45	1868-53-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818007 Lab ID: 40177402007 Collected: 10/08/18 16:21 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST Analytical Method: EPA 8260									
<i>Surrogates</i>									
Toluene-d8 (S)	107	%	70-130		1		10/11/18 20:45	2037-26-5	
4-Bromofluorobenzene (S)	86	%	70-130		1		10/11/18 20:45	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	28.7	mg/L	3.0	1.0	1		10/18/18 15:19	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	437	mg/L	117	35.2	5		10/16/18 10:54		
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:07		

Sample: 100818008 Lab ID: 40177402008 Collected: 10/08/18 17:03 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	<1.4	ug/L	2.8	1.4	1		10/16/18 11:44	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 06:12	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 06:12	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 06:12	7440-50-8	D3
Iron, Dissolved	<221	ug/L	737	221	2	10/12/18 06:51	10/20/18 06:12	7439-89-6	D3
Manganese, Dissolved	459	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 06:12	7439-96-5	
Nickel, Dissolved	1.2J	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 06:12	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 06:12	7440-22-4	D3
Vanadium, Dissolved	<0.63	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 06:12	7440-62-2	D3
Zinc, Dissolved	<9.2	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 06:12	7440-66-6	D3
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	<0.010	ug/L	0.052	0.010	1	10/15/18 09:16	10/15/18 18:21	120-12-7	
Benzo(a)pyrene	<0.010	ug/L	0.052	0.010	1	10/15/18 09:16	10/15/18 18:21	50-32-8	
Benzo(b)fluoranthene	<0.0057	ug/L	0.028	0.0057	1	10/15/18 09:16	10/15/18 18:21	205-99-2	
Benzo(g,h,i)perylene	<0.0067	ug/L	0.034	0.0067	1	10/15/18 09:16	10/15/18 18:21	191-24-2	
Chrysene	<0.013	ug/L	0.065	0.013	1	10/15/18 09:16	10/15/18 18:21	218-01-9	
Fluoranthene	<0.011	ug/L	0.053	0.011	1	10/15/18 09:16	10/15/18 18:21	206-44-0	
Fluorene	<0.0079	ug/L	0.039	0.0079	1	10/15/18 09:16	10/15/18 18:21	86-73-7	
Naphthalene	<0.018	ug/L	0.091	0.018	1	10/15/18 09:16	10/15/18 18:21	91-20-3	
Phenanthrene	<0.014	ug/L	0.068	0.014	1	10/15/18 09:16	10/15/18 18:21	85-01-8	
Pyrene	<0.0076	ug/L	0.038	0.0076	1	10/15/18 09:16	10/15/18 18:21	129-00-0	
<i>Surrogates</i>									
2-Fluorobiphenyl (S)	57	%	29-80		1	10/15/18 09:16	10/15/18 18:21	321-60-8	

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818008 **Lab ID: 40177402008** Collected: 10/08/18 17:03 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Surrogates									
Terphenyl-d14 (S)	86	%	10-123		1	10/15/18 09:16	10/15/18 18:21	1718-51-0	
8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/12/18 00:07	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/12/18 00:07	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/12/18 00:07	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/12/18 00:07	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/12/18 00:07	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/12/18 00:07	95-47-6	
Surrogates									
Dibromofluoromethane (S)	103	%	70-130		1		10/12/18 00:07	1868-53-7	
Toluene-d8 (S)	106	%	70-130		1		10/12/18 00:07	2037-26-5	
4-Bromofluorobenzene (S)	86	%	70-130		1		10/12/18 00:07	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	68.6	mg/L	15.0	5.0	5		10/19/18 11:25	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	203	mg/L	23.5	7.0	1		10/16/18 10:55		
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	3.8	mg/L	0.25	0.095	1		10/12/18 11:08		

Sample: 100818009 **Lab ID: 40177402009** Collected: 10/08/18 17:30 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	<1.4	ug/L	2.8	1.4	1		10/16/18 11:51	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<58.7	ug/L	250	58.7	1	10/12/18 06:51	10/20/18 04:29	7429-90-5	
Antimony, Dissolved	0.16J	ug/L	1.0	0.15	1	10/12/18 06:51	10/20/18 04:29	7440-36-0	
Copper, Dissolved	7.3	ug/L	3.6	1.1	1	10/12/18 06:51	10/20/18 04:29	7440-50-8	
Iron, Dissolved	473	ug/L	368	111	1	10/12/18 06:51	10/20/18 04:29	7439-89-6	
Manganese, Dissolved	838	ug/L	9.0	2.7	1	10/12/18 06:51	10/20/18 04:29	7439-96-5	
Nickel, Dissolved	9.3	ug/L	1.3	0.40	1	10/12/18 06:51	10/20/18 04:29	7440-02-0	
Silver, Dissolved	<0.10	ug/L	0.50	0.10	1	10/12/18 06:51	10/20/18 04:29	7440-22-4	
Vanadium, Dissolved	0.32J	ug/L	1.0	0.32	1	10/12/18 06:51	10/20/18 04:29	7440-62-2	
Zinc, Dissolved	134	ug/L	15.3	4.6	1	10/12/18 06:51	10/20/18 04:29	7440-66-6	B

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100818009 **Lab ID: 40177402009** Collected: 10/08/18 17:30 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	<0.010	ug/L	0.052	0.010	1	10/15/18 09:16	10/15/18 18:39	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.053	0.011	1	10/15/18 09:16	10/15/18 18:39	50-32-8	
Benzo(b)fluoranthene	<0.0057	ug/L	0.029	0.0057	1	10/15/18 09:16	10/15/18 18:39	205-99-2	
Benzo(g,h,i)perylene	<0.0068	ug/L	0.034	0.0068	1	10/15/18 09:16	10/15/18 18:39	191-24-2	
Chrysene	<0.013	ug/L	0.065	0.013	1	10/15/18 09:16	10/15/18 18:39	218-01-9	
Fluoranthene	<0.011	ug/L	0.053	0.011	1	10/15/18 09:16	10/15/18 18:39	206-44-0	
Fluorene	<0.0080	ug/L	0.040	0.0080	1	10/15/18 09:16	10/15/18 18:39	86-73-7	
Naphthalene	<0.018	ug/L	0.092	0.018	1	10/15/18 09:16	10/15/18 18:39	91-20-3	
Phenanthrene	<0.014	ug/L	0.069	0.014	1	10/15/18 09:16	10/15/18 18:39	85-01-8	
Pyrene	<0.0076	ug/L	0.038	0.0076	1	10/15/18 09:16	10/15/18 18:39	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	29-80		1	10/15/18 09:16	10/15/18 18:39	321-60-8	
Terphenyl-d14 (S)	103	%	10-123		1	10/15/18 09:16	10/15/18 18:39	1718-51-0	

8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 20:00	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 20:00	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 20:00	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 20:00	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 20:00	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 20:00	95-47-6	
Surrogates									
Dibromofluoromethane (S)	100	%	70-130		1		10/11/18 20:00	1868-53-7	
Toluene-d8 (S)	108	%	70-130		1		10/11/18 20:00	2037-26-5	
4-Bromofluorobenzene (S)	88	%	70-130		1		10/11/18 20:00	460-00-4	

300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	<1.0	mg/L	3.0	1.0	1		10/18/18 16:31	14808-79-8	

310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	<7.0	mg/L	23.5	7.0	1		10/16/18 10:56		

353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:12		

Sample: 100918010 **Lab ID: 40177402010** Collected: 10/09/18 08:58 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	20.3	ug/L	2.8	1.4	1		10/16/18 11:58	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 06:19	7429-90-5	D3

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918010 **Lab ID: 40177402010** Collected: 10/09/18 08:58 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 06:19	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 06:19	7440-50-8	D3
Iron, Dissolved	<221	ug/L	737	221	2	10/12/18 06:51	10/20/18 06:19	7439-89-6	D3
Manganese, Dissolved	<5.4	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 06:19	7439-96-5	D3
Nickel, Dissolved	<0.80	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 06:19	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 06:19	7440-22-4	D3
Vanadium, Dissolved	<0.63	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 06:19	7440-62-2	D3
Zinc, Dissolved	16.8J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 06:19	7440-66-6	B,D3
8270 MSSV PAH by HVI									
Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	<0.011	ug/L	0.054	0.011	1	10/16/18 08:48	10/16/18 20:46	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.055	0.011	1	10/16/18 08:48	10/16/18 20:46	50-32-8	
Benzo(b)fluoranthene	0.011J	ug/L	0.030	0.0060	1	10/16/18 08:48	10/16/18 20:46	205-99-2	
Benzo(g,h,i)perylene	<0.0071	ug/L	0.035	0.0071	1	10/16/18 08:48	10/16/18 20:46	191-24-2	
Chrysene	<0.014	ug/L	0.068	0.014	1	10/16/18 08:48	10/16/18 20:46	218-01-9	
Fluoranthene	<0.011	ug/L	0.056	0.011	1	10/16/18 08:48	10/16/18 20:46	206-44-0	
Fluorene	<0.0083	ug/L	0.042	0.0083	1	10/16/18 08:48	10/16/18 20:46	86-73-7	
Naphthalene	<0.019	ug/L	0.095	0.019	1	10/16/18 08:48	10/16/18 20:46	91-20-3	
Phenanthrene	<0.014	ug/L	0.072	0.014	1	10/16/18 08:48	10/16/18 20:46	85-01-8	
Pyrene	0.010J	ug/L	0.040	0.0080	1	10/16/18 08:48	10/16/18 20:46	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%	29-80		1	10/16/18 08:48	10/16/18 20:46	321-60-8	
Terphenyl-d14 (S)	84	%	10-123		1	10/16/18 08:48	10/16/18 20:46	1718-51-0	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/12/18 00:30	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/12/18 00:30	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/12/18 00:30	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/12/18 00:30	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/12/18 00:30	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/12/18 00:30	95-47-6	
Surrogates									
Dibromofluoromethane (S)	101	%	70-130		1		10/12/18 00:30	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1		10/12/18 00:30	2037-26-5	
4-Bromofluorobenzene (S)	86	%	70-130		1		10/12/18 00:30	460-00-4	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0									
Sulfate	398	mg/L	60.0	20.0	20		10/19/18 11:39	14808-79-8	
310.2 Alkalinity									
Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	673	mg/L	47.0	14.1	2		10/16/18 10:57		
353.2 Nitrogen, NO2/NO3 pres.									
Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	0.25	mg/L	0.25	0.095	1		10/12/18 11:13		

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918011 **Lab ID: 40177402011** Collected: 10/09/18 09:48 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	163	ug/L	2.8	1.4	1		10/16/18 12:05	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<0.117	ug/L	500	117	2	10/12/18 06:51	10/20/18 06:26	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 06:26	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 06:26	7440-50-8	D3
Iron, Dissolved	2370	ug/L	737	221	2	10/12/18 06:51	10/20/18 06:26	7439-89-6	
Manganese, Dissolved	505	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 06:26	7439-96-5	
Nickel, Dissolved	0.80J	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 06:26	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 06:26	7440-22-4	D3
Vanadium, Dissolved	1.9J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 06:26	7440-62-2	D3
Zinc, Dissolved	16.3J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 06:26	7440-66-6	B,D3
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	0.25	ug/L	0.055	0.011	1	10/16/18 08:48	10/16/18 19:51	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.055	0.011	1	10/16/18 08:48	10/16/18 19:51	50-32-8	
Benzo(b)fluoranthene	<0.0060	ug/L	0.030	0.0060	1	10/16/18 08:48	10/16/18 19:51	205-99-2	
Benzo(g,h,i)perylene	<0.0071	ug/L	0.036	0.0071	1	10/16/18 08:48	10/16/18 19:51	191-24-2	
Chrysene	<0.014	ug/L	0.069	0.014	1	10/16/18 08:48	10/16/18 19:51	218-01-9	
Fluoranthene	1.1	ug/L	0.056	0.011	1	10/16/18 08:48	10/16/18 19:51	206-44-0	
Fluorene	3.5	ug/L	0.042	0.0084	1	10/16/18 08:48	10/16/18 19:51	86-73-7	
Naphthalene	10.6	ug/L	0.096	0.019	1	10/16/18 08:48	10/16/18 19:51	91-20-3	
Phenanthrene	0.96	ug/L	0.073	0.015	1	10/16/18 08:48	10/16/18 19:51	85-01-8	
Pyrene	0.91	ug/L	0.040	0.0081	1	10/16/18 08:48	10/16/18 19:51	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	29-80		1	10/16/18 08:48	10/16/18 19:51	321-60-8	
Terphenyl-d14 (S)	89	%	10-123		1	10/16/18 08:48	10/16/18 19:51	1718-51-0	
8260 MSV UST Analytical Method: EPA 8260									
Benzene	0.62J	ug/L	1.0	0.25	1		10/12/18 00:52	71-43-2	
Ethylbenzene	0.26J	ug/L	1.0	0.22	1		10/12/18 00:52	100-41-4	
Toluene	0.25J	ug/L	5.0	0.17	1		10/12/18 00:52	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/12/18 00:52	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/12/18 00:52	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/12/18 00:52	95-47-6	
Surrogates									
Dibromofluoromethane (S)	101	%	70-130		1		10/12/18 00:52	1868-53-7	
Toluene-d8 (S)	106	%	70-130		1		10/12/18 00:52	2037-26-5	
4-Bromofluorobenzene (S)	87	%	70-130		1		10/12/18 00:52	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	12.5	mg/L	3.0	1.0	1		10/18/18 16:59	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	453	mg/L	117	35.2	5		10/16/18 10:57		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918011									
		Lab ID: 40177402011	Collected: 10/09/18 09:48	Received: 10/10/18 11:02	Matrix: Water				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:14		

Sample: 100918012									
		Lab ID: 40177402012	Collected: 10/09/18 10:39	Received: 10/10/18 11:02	Matrix: Water				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	32.9	ug/L	2.8	1.4	1		10/16/18 12:12	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 06:33	7429-90-5	D3
Antimony, Dissolved	1.2J	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 06:33	7440-36-0	D3
Copper, Dissolved	27.8	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 06:33	7440-50-8	
Iron, Dissolved	<221	ug/L	737	221	2	10/12/18 06:51	10/20/18 06:33	7439-89-6	D3
Manganese, Dissolved	20.6	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 06:33	7439-96-5	
Nickel, Dissolved	2.7J	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 06:33	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 06:33	7440-22-4	D3
Vanadium, Dissolved	1.7J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 06:33	7440-62-2	D3
Zinc, Dissolved	31.2	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 06:33	7440-66-6	B

8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	0.043J	ug/L	0.055	0.011	1	10/16/18 08:48	10/16/18 21:05	120-12-7	
Benzo(a)pyrene	0.024J	ug/L	0.055	0.011	1	10/16/18 08:48	10/16/18 21:05	50-32-8	
Benzo(b)fluoranthene	0.059	ug/L	0.030	0.0060	1	10/16/18 08:48	10/16/18 21:05	205-99-2	
Benzo(g,h,i)perylene	0.049	ug/L	0.036	0.0071	1	10/16/18 08:48	10/16/18 21:05	191-24-2	
Chrysene	0.051J	ug/L	0.069	0.014	1	10/16/18 08:48	10/16/18 21:05	218-01-9	
Fluoranthene	0.060	ug/L	0.056	0.011	1	10/16/18 08:48	10/16/18 21:05	206-44-0	
Fluorene	<0.0084	ug/L	0.042	0.0084	1	10/16/18 08:48	10/16/18 21:05	86-73-7	
Naphthalene	<0.019	ug/L	0.096	0.019	1	10/16/18 08:48	10/16/18 21:05	91-20-3	
Phenanthrene	0.016J	ug/L	0.073	0.015	1	10/16/18 08:48	10/16/18 21:05	85-01-8	
Pyrene	0.064	ug/L	0.040	0.0081	1	10/16/18 08:48	10/16/18 21:05	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	55	%	29-80		1	10/16/18 08:48	10/16/18 21:05	321-60-8	
Terphenyl-d14 (S)	75	%	10-123		1	10/16/18 08:48	10/16/18 21:05	1718-51-0	

8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/12/18 01:15	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/12/18 01:15	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/12/18 01:15	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/12/18 01:15	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/12/18 01:15	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/12/18 01:15	95-47-6	
Surrogates									
Dibromofluoromethane (S)	102	%	70-130		1		10/12/18 01:15	1868-53-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918012 Lab ID: 40177402012 Collected: 10/09/18 10:39 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST Analytical Method: EPA 8260									
<i>Surrogates</i>									
Toluene-d8 (S)	106	%	70-130		1		10/12/18 01:15	2037-26-5	
4-Bromofluorobenzene (S)	87	%	70-130		1		10/12/18 01:15	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	52.5	mg/L	3.0	1.0	1		10/18/18 17:13	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	309	mg/L	117	35.2	5		10/16/18 10:58		
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	3.7	mg/L	0.25	0.095	1		10/12/18 11:15		

Sample: 100918013 Lab ID: 40177402013 Collected: 10/09/18 11:00 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	<1.4	ug/L	2.8	1.4	1		10/16/18 12:19	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 06:39	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 06:39	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 06:39	7440-50-8	D3
Iron, Dissolved	<221	ug/L	737	221	2	10/12/18 06:51	10/20/18 06:39	7439-89-6	D3
Manganese, Dissolved	<5.4	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 06:39	7439-96-5	D3
Nickel, Dissolved	<0.80	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 06:39	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 06:39	7440-22-4	D3
Vanadium, Dissolved	0.81J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 06:39	7440-62-2	D3
Zinc, Dissolved	10.6J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 06:39	7440-66-6	B,D3
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	<0.010	ug/L	0.052	0.010	1	10/16/18 08:48	10/17/18 08:57	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.053	0.011	1	10/16/18 08:48	10/17/18 08:57	50-32-8	
Benzo(b)fluoranthene	0.011J	ug/L	0.029	0.0057	1	10/16/18 08:48	10/17/18 08:57	205-99-2	
Benzo(g,h,i)perylene	0.010J	ug/L	0.034	0.0068	1	10/16/18 08:48	10/17/18 08:57	191-24-2	
Chrysene	<0.013	ug/L	0.065	0.013	1	10/16/18 08:48	10/17/18 08:57	218-01-9	
Fluoranthene	0.014J	ug/L	0.053	0.011	1	10/16/18 08:48	10/17/18 08:57	206-44-0	
Fluorene	<0.0080	ug/L	0.040	0.0080	1	10/16/18 08:48	10/17/18 08:57	86-73-7	
Naphthalene	<0.018	ug/L	0.092	0.018	1	10/16/18 08:48	10/17/18 08:57	91-20-3	
Phenanthrene	0.020J	ug/L	0.069	0.014	1	10/16/18 08:48	10/17/18 08:57	85-01-8	
Pyrene	0.018J	ug/L	0.038	0.0076	1	10/16/18 08:48	10/17/18 08:57	129-00-0	
<i>Surrogates</i>									
2-Fluorobiphenyl (S)	65	%	29-80		1	10/16/18 08:48	10/17/18 08:57	321-60-8	

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

Sample: 100918013									
Lab ID: 40177402013									
Collected: 10/09/18 11:00 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI									
Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Surrogates									
Terphenyl-d14 (S)	89	%	10-123		1	10/16/18 08:48	10/17/18 08:57	1718-51-0	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/12/18 01:38	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/12/18 01:38	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/12/18 01:38	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/12/18 01:38	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/12/18 01:38	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/12/18 01:38	95-47-6	
Surrogates									
Dibromofluoromethane (S)	103	%	70-130		1		10/12/18 01:38	1868-53-7	
Toluene-d8 (S)	106	%	70-130		1		10/12/18 01:38	2037-26-5	
4-Bromofluorobenzene (S)	88	%	70-130		1		10/12/18 01:38	460-00-4	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0									
Sulfate	976	mg/L	150	50.0	50		10/19/18 11:53	14808-79-8	
310.2 Alkalinity									
Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	144	mg/L	23.5	7.0	1		10/16/18 11:00		
353.2 Nitrogen, NO2/NO3 pres.									
Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	0.29	mg/L	0.25	0.095	1		10/12/18 11:17		

Sample: 100918014									
Lab ID: 40177402014									
Collected: 10/09/18 11:30 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV									
Analytical Method: EPA 8015B Modified									
Methane	<1.4	ug/L	2.8	1.4	1		10/16/18 12:26	74-82-8	
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 06:46	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 06:46	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 06:46	7440-50-8	D3
Iron, Dissolved	395J	ug/L	737	221	2	10/12/18 06:51	10/20/18 06:46	7439-89-6	D3
Manganese, Dissolved	39.5	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 06:46	7439-96-5	
Nickel, Dissolved	1.2J	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 06:46	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 06:46	7440-22-4	D3
Vanadium, Dissolved	<0.63	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 06:46	7440-62-2	D3
Zinc, Dissolved	11.6J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 06:46	7440-66-6	B,D3

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918014 Lab ID: 40177402014 Collected: 10/09/18 11:30 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI		Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510							
Anthracene	<0.012	ug/L	0.061	0.012	1	10/16/18 08:48	10/17/18 09:14	120-12-7	
Benzo(a)pyrene	<0.012	ug/L	0.061	0.012	1	10/16/18 08:48	10/17/18 09:14	50-32-8	
Benzo(b)fluoranthene	<0.0067	ug/L	0.033	0.0067	1	10/16/18 08:48	10/17/18 09:14	205-99-2	
Benzo(g,h,i)perylene	<0.0079	ug/L	0.039	0.0079	1	10/16/18 08:48	10/17/18 09:14	191-24-2	
Chrysene	<0.015	ug/L	0.076	0.015	1	10/16/18 08:48	10/17/18 09:14	218-01-9	
Fluoranthene	<0.012	ug/L	0.062	0.012	1	10/16/18 08:48	10/17/18 09:14	206-44-0	
Fluorene	<0.0093	ug/L	0.046	0.0093	1	10/16/18 08:48	10/17/18 09:14	86-73-7	
Naphthalene	<0.021	ug/L	0.11	0.021	1	10/16/18 08:48	10/17/18 09:14	91-20-3	
Phenanthrene	<0.016	ug/L	0.080	0.016	1	10/16/18 08:48	10/17/18 09:14	85-01-8	
Pyrene	<0.0089	ug/L	0.044	0.0089	1	10/16/18 08:48	10/17/18 09:14	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%	29-80		1	10/16/18 08:48	10/17/18 09:14	321-60-8	
Terphenyl-d14 (S)	93	%	10-123		1	10/16/18 08:48	10/17/18 09:14	1718-51-0	
8260 MSV UST		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L	1.0	0.25	1		10/12/18 02:00	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/12/18 02:00	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/12/18 02:00	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/12/18 02:00	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/12/18 02:00	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/12/18 02:00	95-47-6	
Surrogates									
Dibromofluoromethane (S)	102	%	70-130		1		10/12/18 02:00	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1		10/12/18 02:00	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		10/12/18 02:00	460-00-4	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	625	mg/L	150	50.0	50		10/19/18 12:06	14808-79-8	
310.2 Alkalinity		Analytical Method: EPA 310.2							
Alkalinity, Total as CaCO3	189	mg/L	23.5	7.0	1		10/16/18 11:00		
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	2.6	mg/L	0.25	0.095	1		10/12/18 11:18		

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918016 **Lab ID: 40177402016** Collected: 10/09/18 13:01 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	8190	ug/L	280	137	100		10/16/18 13:40	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<0.117	ug/L	500	117	2	10/12/18 06:51	10/20/18 07:14	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 07:14	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 07:14	7440-50-8	D3
Iron, Dissolved	8170	ug/L	737	221	2	10/12/18 06:51	10/20/18 07:14	7439-89-6	
Manganese, Dissolved	739	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 07:14	7439-96-5	
Nickel, Dissolved	<0.80	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 07:14	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 07:14	7440-22-4	D3
Vanadium, Dissolved	1.2J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 07:14	7440-62-2	D3
Zinc, Dissolved	12.2J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 07:14	7440-66-6	B,D3
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	<0.011	ug/L	0.057	0.011	1	10/16/18 08:48	10/17/18 09:33	120-12-7	
Benzo(a)pyrene	<0.012	ug/L	0.058	0.012	1	10/16/18 08:48	10/17/18 09:33	50-32-8	
Benzo(b)fluoranthene	<0.0063	ug/L	0.032	0.0063	1	10/16/18 08:48	10/17/18 09:33	205-99-2	
Benzo(g,h,i)perylene	<0.0075	ug/L	0.037	0.0075	1	10/16/18 08:48	10/17/18 09:33	191-24-2	
Chrysene	<0.014	ug/L	0.072	0.014	1	10/16/18 08:48	10/17/18 09:33	218-01-9	
Fluoranthene	<0.012	ug/L	0.059	0.012	1	10/16/18 08:48	10/17/18 09:33	206-44-0	
Fluorene	<0.0088	ug/L	0.044	0.0088	1	10/16/18 08:48	10/17/18 09:33	86-73-7	
Naphthalene	0.063J	ug/L	0.10	0.020	1	10/16/18 08:48	10/17/18 09:33	91-20-3	
Phenanthrene	<0.015	ug/L	0.076	0.015	1	10/16/18 08:48	10/17/18 09:33	85-01-8	
Pyrene	<0.0084	ug/L	0.042	0.0084	1	10/16/18 08:48	10/17/18 09:33	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	57	%	29-80		1	10/16/18 08:48	10/17/18 09:33	321-60-8	
Terphenyl-d14 (S)	75	%	10-123		1	10/16/18 08:48	10/17/18 09:33	1718-51-0	
8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/12/18 02:23	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/12/18 02:23	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/12/18 02:23	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/12/18 02:23	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/12/18 02:23	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/12/18 02:23	95-47-6	
Surrogates									
Dibromofluoromethane (S)	104	%	70-130		1		10/12/18 02:23	1868-53-7	
Toluene-d8 (S)	109	%	70-130		1		10/12/18 02:23	2037-26-5	
4-Bromofluorobenzene (S)	88	%	70-130		1		10/12/18 02:23	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	1.0J	mg/L	3.0	1.0	1		10/18/18 18:08	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	419	mg/L	235	70.4	10		10/16/18 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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Sample: 100918016		Lab ID: 40177402016		Collected: 10/09/18 13:01	Received: 10/10/18 11:02	Matrix: Water			
Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:20		

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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Sample: 100918017		Lab ID: 40177402017		Collected: 10/09/18 13:44	Received: 10/10/18 11:02	Matrix: Water			
Analytical Method: EPA 8015B Modified									
Methane	11200	ug/L	280	137	100		10/16/18 13:48	74-82-8	

6020 MET ICPMS, Dissolved		Analytical Method: EPA 6020 Preparation Method: EPA 3010							
Aluminum, Dissolved	<0.117	ug/L	500	117	2	10/12/18 06:51	10/20/18 07:21	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 07:21	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 07:21	7440-50-8	D3
Iron, Dissolved	15400	ug/L	737	221	2	10/12/18 06:51	10/20/18 07:21	7439-89-6	
Manganese, Dissolved	823	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 07:21	7439-96-5	
Nickel, Dissolved	<0.80	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 07:21	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 07:21	7440-22-4	D3
Vanadium, Dissolved	0.83J	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 07:21	7440-62-2	D3
Zinc, Dissolved	<9.2	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 07:21	7440-66-6	D3

8270 MSSV PAH by HVI		Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510							
Anthracene	0.030J	ug/L	0.054	0.011	1	10/16/18 08:48	10/17/18 09:51	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.055	0.011	1	10/16/18 08:48	10/17/18 09:51	50-32-8	
Benzo(b)fluoranthene	<0.0060	ug/L	0.030	0.0060	1	10/16/18 08:48	10/17/18 09:51	205-99-2	
Benzo(g,h,i)perylene	<0.0071	ug/L	0.035	0.0071	1	10/16/18 08:48	10/17/18 09:51	191-24-2	
Chrysene	<0.014	ug/L	0.068	0.014	1	10/16/18 08:48	10/17/18 09:51	218-01-9	
Fluoranthene	0.073	ug/L	0.056	0.011	1	10/16/18 08:48	10/17/18 09:51	206-44-0	
Fluorene	0.18	ug/L	0.042	0.0083	1	10/16/18 08:48	10/17/18 09:51	86-73-7	
Naphthalene	0.035J	ug/L	0.095	0.019	1	10/16/18 08:48	10/17/18 09:51	91-20-3	
Phenanthrene	0.10	ug/L	0.072	0.014	1	10/16/18 08:48	10/17/18 09:51	85-01-8	
Pyrene	0.078	ug/L	0.040	0.0080	1	10/16/18 08:48	10/17/18 09:51	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	62	%	29-80		1	10/16/18 08:48	10/17/18 09:51	321-60-8	
Terphenyl-d14 (S)	84	%	10-123		1	10/16/18 08:48	10/17/18 09:51	1718-51-0	

8260 MSV UST		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L	1.0	0.25	1		10/12/18 15:52	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/12/18 15:52	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/12/18 15:52	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/12/18 15:52	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/12/18 15:52	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/12/18 15:52	95-47-6	
Surrogates									
Dibromofluoromethane (S)	92	%	70-130		1		10/12/18 15:52	1868-53-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918017 Lab ID: 40177402017 Collected: 10/09/18 13:44 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST Analytical Method: EPA 8260									
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/12/18 15:52	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		10/12/18 15:52	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	<1.0	mg/L	3.0	1.0	1		10/18/18 18:22	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	793	mg/L	47.0	14.1	2		10/16/18 12:40		
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:21		

Sample: 100918018 Lab ID: 40177402018 Collected: 10/09/18 14:36 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	4850	ug/L	280	137	100		10/18/18 14:32	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 07:28	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 07:28	7440-36-0	D3
Copper, Dissolved	3.8J	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 07:28	7440-50-8	D3
Iron, Dissolved	17800	ug/L	737	221	2	10/12/18 06:51	10/20/18 07:28	7439-89-6	
Manganese, Dissolved	171	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 07:28	7439-96-5	
Nickel, Dissolved	1.5J	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 07:28	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 07:28	7440-22-4	D3
Vanadium, Dissolved	<0.63	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 07:28	7440-62-2	D3
Zinc, Dissolved	13.1J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 07:28	7440-66-6	B,D3
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	0.12	ug/L	0.057	0.011	1	10/16/18 08:48	10/17/18 10:28	120-12-7	
Benzo(a)pyrene	0.012J	ug/L	0.057	0.011	1	10/16/18 08:48	10/17/18 10:28	50-32-8	
Benzo(b)fluoranthene	0.029J	ug/L	0.031	0.0062	1	10/16/18 08:48	10/17/18 10:28	205-99-2	
Benzo(g,h,i)perylene	0.020J	ug/L	0.037	0.0074	1	10/16/18 08:48	10/17/18 10:28	191-24-2	
Chrysene	0.047J	ug/L	0.071	0.014	1	10/16/18 08:48	10/17/18 10:28	218-01-9	
Fluoranthene	0.25	ug/L	0.058	0.012	1	10/16/18 08:48	10/17/18 10:28	206-44-0	
Fluorene	0.40	ug/L	0.043	0.0087	1	10/16/18 08:48	10/17/18 10:28	86-73-7	
Naphthalene	0.055J	ug/L	0.10	0.020	1	10/16/18 08:48	10/17/18 10:28	91-20-3	
Phenanthrene	0.34	ug/L	0.075	0.015	1	10/16/18 08:48	10/17/18 10:28	85-01-8	
Pyrene	0.27	ug/L	0.042	0.0083	1	10/16/18 08:48	10/17/18 10:28	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	58	%	29-80		1	10/16/18 08:48	10/17/18 10:28	321-60-8	

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918018 **Lab ID: 40177402018** Collected: 10/09/18 14:36 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Surrogates									
Terphenyl-d14 (S)	82	%	10-123		1	10/16/18 08:48	10/17/18 10:28	1718-51-0	
8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 21:07	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 21:07	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 21:07	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 21:07	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 21:07	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 21:07	95-47-6	
Surrogates									
Dibromofluoromethane (S)	101	%	70-130		1		10/11/18 21:07	1868-53-7	
Toluene-d8 (S)	108	%	70-130		1		10/11/18 21:07	2037-26-5	
4-Bromofluorobenzene (S)	87	%	70-130		1		10/11/18 21:07	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	8.4J	mg/L	15.0	5.0	5		10/19/18 14:04	14808-79-8	D3
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	252	mg/L	47.0	14.1	2		10/16/18 12:40		
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:22		

Sample: 100918019 **Lab ID: 40177402019** Collected: 10/09/18 14:41 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	4780	ug/L	280	137	100		10/18/18 14:39	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 07:34	7429-90-5	D3
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 07:34	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 07:34	7440-50-8	D3
Iron, Dissolved	17800	ug/L	737	221	2	10/12/18 06:51	10/20/18 07:34	7439-89-6	
Manganese, Dissolved	172	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 07:34	7439-96-5	
Nickel, Dissolved	1.7J	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 07:34	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 07:34	7440-22-4	D3
Vanadium, Dissolved	<0.63	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 07:34	7440-62-2	D3
Zinc, Dissolved	10.1J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 07:34	7440-66-6	B,D3

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918019 **Lab ID: 40177402019** Collected: 10/09/18 14:41 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	0.12	ug/L	0.054	0.011	1	10/16/18 08:48	10/17/18 10:47	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.054	0.011	1	10/16/18 08:48	10/17/18 10:47	50-32-8	
Benzo(b)fluoranthene	0.018J	ug/L	0.030	0.0059	1	10/16/18 08:48	10/17/18 10:47	205-99-2	
Benzo(g,h,i)perylene	0.010J	ug/L	0.035	0.0070	1	10/16/18 08:48	10/17/18 10:47	191-24-2	
Chrysene	0.038J	ug/L	0.067	0.013	1	10/16/18 08:48	10/17/18 10:47	218-01-9	
Fluoranthene	0.23	ug/L	0.055	0.011	1	10/16/18 08:48	10/17/18 10:47	206-44-0	
Fluorene	0.36	ug/L	0.041	0.0082	1	10/16/18 08:48	10/17/18 10:47	86-73-7	
Naphthalene	0.056J	ug/L	0.094	0.019	1	10/16/18 08:48	10/17/18 10:47	91-20-3	
Phenanthrene	0.30	ug/L	0.071	0.014	1	10/16/18 08:48	10/17/18 10:47	85-01-8	
Pyrene	0.25	ug/L	0.039	0.0079	1	10/16/18 08:48	10/17/18 10:47	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	56	%	29-80		1	10/16/18 08:48	10/17/18 10:47	321-60-8	
Terphenyl-d14 (S)	79	%	10-123		1	10/16/18 08:48	10/17/18 10:47	1718-51-0	

8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 21:30	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 21:30	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 21:30	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 21:30	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 21:30	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 21:30	95-47-6	
Surrogates									
Dibromofluoromethane (S)	101	%	70-130		1		10/11/18 21:30	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1		10/11/18 21:30	2037-26-5	
4-Bromofluorobenzene (S)	87	%	70-130		1		10/11/18 21:30	460-00-4	

300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	8.4J	mg/L	15.0	5.0	5		10/19/18 14:41	14808-79-8	D3

310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	260	mg/L	47.0	14.1	2		10/16/18 12:43		

353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:26		

Sample: 100918020 **Lab ID: 40177402020** Collected: 10/09/18 15:29 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	1400	ug/L	56.0	27.4	20		10/18/18 14:46	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/12/18 06:51	10/20/18 07:41	7429-90-5	D3

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918020 **Lab ID: 40177402020** Collected: 10/09/18 15:29 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Antimony, Dissolved	<0.30	ug/L	2.0	0.30	2	10/12/18 06:51	10/20/18 07:41	7440-36-0	D3
Copper, Dissolved	<2.2	ug/L	7.3	2.2	2	10/12/18 06:51	10/20/18 07:41	7440-50-8	D3
Iron, Dissolved	16200	ug/L	737	221	2	10/12/18 06:51	10/20/18 07:41	7439-89-6	
Manganese, Dissolved	916	ug/L	18.0	5.4	2	10/12/18 06:51	10/20/18 07:41	7439-96-5	
Nickel, Dissolved	<0.80	ug/L	2.7	0.80	2	10/12/18 06:51	10/20/18 07:41	7440-02-0	D3
Silver, Dissolved	<0.20	ug/L	1.0	0.20	2	10/12/18 06:51	10/20/18 07:41	7440-22-4	D3
Vanadium, Dissolved	2.1	ug/L	2.1	0.63	2	10/12/18 06:51	10/20/18 07:41	7440-62-2	
Zinc, Dissolved	10J	ug/L	30.7	9.2	2	10/12/18 06:51	10/20/18 07:41	7440-66-6	B,D3
8270 MSSV PAH by HVI									
Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	0.046J	ug/L	0.055	0.011	1	10/16/18 08:48	10/17/18 11:05	120-12-7	
Benzo(a)pyrene	<0.011	ug/L	0.055	0.011	1	10/16/18 08:48	10/17/18 11:05	50-32-8	
Benzo(b)fluoranthene	0.0098J	ug/L	0.030	0.0060	1	10/16/18 08:48	10/17/18 11:05	205-99-2	
Benzo(g,h,i)perylene	<0.0071	ug/L	0.036	0.0071	1	10/16/18 08:48	10/17/18 11:05	191-24-2	
Chrysene	<0.014	ug/L	0.069	0.014	1	10/16/18 08:48	10/17/18 11:05	218-01-9	
Fluoranthene	0.11	ug/L	0.056	0.011	1	10/16/18 08:48	10/17/18 11:05	206-44-0	
Fluorene	1.1	ug/L	0.042	0.0084	1	10/16/18 08:48	10/17/18 11:05	86-73-7	
Naphthalene	0.020J	ug/L	0.096	0.019	1	10/16/18 08:48	10/17/18 11:05	91-20-3	
Phenanthrene	<0.015	ug/L	0.073	0.015	1	10/16/18 08:48	10/17/18 11:05	85-01-8	
Pyrene	0.11	ug/L	0.040	0.0081	1	10/16/18 08:48	10/17/18 11:05	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	55	%	29-80		1	10/16/18 08:48	10/17/18 11:05	321-60-8	
Terphenyl-d14 (S)	71	%	10-123		1	10/16/18 08:48	10/17/18 11:05	1718-51-0	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 21:52	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 21:52	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 21:52	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 21:52	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 21:52	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 21:52	95-47-6	
Surrogates									
Dibromofluoromethane (S)	101	%	70-130		1		10/11/18 21:52	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1		10/11/18 21:52	2037-26-5	
4-Bromofluorobenzene (S)	88	%	70-130		1		10/11/18 21:52	460-00-4	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0									
Sulfate	78.7	mg/L	15.0	5.0	5		10/19/18 14:53	14808-79-8	
310.2 Alkalinity									
Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	566	mg/L	117	35.2	5		10/16/18 12:44		
353.2 Nitrogen, NO2/NO3 pres.									
Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:28		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918021 **Lab ID: 40177402021** Collected: 10/09/18 16:05 Received: 10/10/18 11:02 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	8660	ug/L	280	137	100		10/18/18 14:53	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<117	ug/L	500	117	2	10/19/18 07:47	10/23/18 15:08	7429-90-5	D3
Antimony, Dissolved	0.53J	ug/L	2.0	0.30	2	10/19/18 07:47	10/23/18 15:08	7440-36-0	D3
Copper, Dissolved	4.5J	ug/L	7.3	2.2	2	10/19/18 07:47	10/23/18 15:08	7440-50-8	D3
Iron, Dissolved	36400	ug/L	737	221	2	10/19/18 07:47	10/23/18 15:08	7439-89-6	
Manganese, Dissolved	968	ug/L	18.0	5.4	2	10/19/18 07:47	10/23/18 15:08	7439-96-5	
Nickel, Dissolved	1.3J	ug/L	2.7	0.80	2	10/19/18 07:47	10/23/18 15:08	7440-02-0	D3
Silver, Dissolved	0.20J	ug/L	1.0	0.20	2	10/19/18 07:47	10/23/18 15:08	7440-22-4	D3
Vanadium, Dissolved	3.4	ug/L	2.1	0.63	2	10/19/18 07:47	10/23/18 15:08	7440-62-2	
Zinc, Dissolved	16.6J	ug/L	30.7	9.2	2	10/19/18 07:47	10/23/18 15:08	7440-66-6	B,D3
8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	2.7	ug/L	2.2	0.44	40	10/16/18 08:48	10/17/18 15:21	120-12-7	
Benzo(a)pyrene	<0.44	ug/L	2.2	0.44	40	10/16/18 08:48	10/17/18 15:21	50-32-8	
Benzo(b)fluoranthene	<0.24	ug/L	1.2	0.24	40	10/16/18 08:48	10/17/18 15:21	205-99-2	
Benzo(g,h,i)perylene	<0.28	ug/L	1.4	0.28	40	10/16/18 08:48	10/17/18 15:21	191-24-2	
Chrysene	<0.54	ug/L	2.7	0.54	40	10/16/18 08:48	10/17/18 15:21	218-01-9	
Fluoranthene	1.9J	ug/L	2.2	0.44	40	10/16/18 08:48	10/17/18 15:21	206-44-0	
Fluorene	19.5	ug/L	1.7	0.33	40	10/16/18 08:48	10/17/18 15:21	86-73-7	
Naphthalene	585	ug/L	3.8	0.76	40	10/16/18 08:48	10/17/18 15:21	91-20-3	
Phenanthrene	16.3	ug/L	2.9	0.57	40	10/16/18 08:48	10/17/18 15:21	85-01-8	
Pyrene	2.4	ug/L	1.6	0.32	40	10/16/18 08:48	10/17/18 15:21	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	52	%	29-80		40	10/16/18 08:48	10/17/18 15:21	321-60-8	
Terphenyl-d14 (S)	51	%	10-123		40	10/16/18 08:48	10/17/18 15:21	1718-51-0	
8260 MSV UST Analytical Method: EPA 8260									
Benzene	154	ug/L	20.0	4.9	20		10/12/18 19:41	71-43-2	
Ethylbenzene	114	ug/L	20.0	4.4	20		10/12/18 19:41	100-41-4	
Toluene	8.8J	ug/L	100	3.4	20		10/12/18 19:41	108-88-3	
Xylene (Total)	84.1	ug/L	60.0	30.0	20		10/12/18 19:41	1330-20-7	
m&p-Xylene	20.0J	ug/L	40.0	9.3	20		10/12/18 19:41	179601-23-1	
o-Xylene	64.1	ug/L	20.0	5.2	20		10/12/18 19:41	95-47-6	
Surrogates									
Dibromofluoromethane (S)	89	%	70-130		20		10/12/18 19:41	1868-53-7	D3
Toluene-d8 (S)	98	%	70-130		20		10/12/18 19:41	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		20		10/12/18 19:41	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	<5.0	mg/L	15.0	5.0	5		10/19/18 15:05	14808-79-8	D3
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	810	mg/L	93.9	28.2	4		10/16/18 12:57		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918021									
		Lab ID: 40177402021	Collected: 10/09/18 16:05	Received: 10/10/18 11:02	Matrix: Water				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:29		M0

Sample: 100918022									
		Lab ID: 40177402022	Collected: 10/09/18 16:35	Received: 10/10/18 11:02	Matrix: Water				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	<1.4	ug/L	2.8	1.4	1		10/18/18 13:13	74-82-8	
6020 MET ICPMS, Dissolved Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Aluminum, Dissolved	<58.7	ug/L	250	58.7	1	10/19/18 07:47	10/23/18 14:54	7429-90-5	
Antimony, Dissolved	<0.15	ug/L	1.0	0.15	1	10/19/18 07:47	10/23/18 14:54	7440-36-0	
Copper, Dissolved	<1.1	ug/L	3.6	1.1	1	10/19/18 07:47	10/23/18 14:54	7440-50-8	
Iron, Dissolved	<111	ug/L	368	111	1	10/19/18 07:47	10/23/18 14:54	7439-89-6	
Manganese, Dissolved	<2.7	ug/L	9.0	2.7	1	10/19/18 07:47	10/23/18 14:54	7439-96-5	
Nickel, Dissolved	<0.40	ug/L	1.3	0.40	1	10/19/18 07:47	10/23/18 14:54	7440-02-0	
Silver, Dissolved	<0.10	ug/L	0.50	0.10	1	10/19/18 07:47	10/23/18 14:54	7440-22-4	
Vanadium, Dissolved	<0.32	ug/L	1.0	0.32	1	10/19/18 07:47	10/23/18 14:54	7440-62-2	
Zinc, Dissolved	8.8J	ug/L	15.3	4.6	1	10/19/18 07:47	10/23/18 14:54	7440-66-6	B

8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Anthracene	<0.012	ug/L	0.059	0.012	1	10/16/18 08:48	10/17/18 10:10	120-12-7	
Benzo(a)pyrene	<0.012	ug/L	0.059	0.012	1	10/16/18 08:48	10/17/18 10:10	50-32-8	
Benzo(b)fluoranthene	<0.0064	ug/L	0.032	0.0064	1	10/16/18 08:48	10/17/18 10:10	205-99-2	
Benzo(g,h,i)perylene	<0.0076	ug/L	0.038	0.0076	1	10/16/18 08:48	10/17/18 10:10	191-24-2	
Chrysene	<0.015	ug/L	0.073	0.015	1	10/16/18 08:48	10/17/18 10:10	218-01-9	
Fluoranthene	<0.012	ug/L	0.060	0.012	1	10/16/18 08:48	10/17/18 10:10	206-44-0	
Fluorene	<0.0090	ug/L	0.045	0.0090	1	10/16/18 08:48	10/17/18 10:10	86-73-7	
Naphthalene	<0.021	ug/L	0.10	0.021	1	10/16/18 08:48	10/17/18 10:10	91-20-3	
Phenanthrene	<0.015	ug/L	0.077	0.015	1	10/16/18 08:48	10/17/18 10:10	85-01-8	
Pyrene	<0.0086	ug/L	0.043	0.0086	1	10/16/18 08:48	10/17/18 10:10	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%	29-80		1	10/16/18 08:48	10/17/18 10:10	321-60-8	
Terphenyl-d14 (S)	96	%	10-123		1	10/16/18 08:48	10/17/18 10:10	1718-51-0	

8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 19:07	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 19:07	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 19:07	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 19:07	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 19:07	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 19:07	95-47-6	
Surrogates									
Dibromofluoromethane (S)	91	%	70-130		1		10/11/18 19:07	1868-53-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Sample: 100918022 Lab ID: 40177402022 Collected: 10/09/18 16:35 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST Analytical Method: EPA 8260									
<i>Surrogates</i>									
Toluene-d8 (S)	97	%	70-130		1		10/11/18 19:07	2037-26-5	
4-Bromofluorobenzene (S)	85	%	70-130		1		10/11/18 19:07	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	<1.0	mg/L	3.0	1.0	1		10/19/18 15:18	14808-79-8	
310.2 Alkalinity Analytical Method: EPA 310.2									
Alkalinity, Total as CaCO3	<7.0	mg/L	23.5	7.0	1		10/16/18 12:45		
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	<0.095	mg/L	0.25	0.095	1		10/12/18 11:32		

Sample: 100918023 Lab ID: 40177402023 Collected: 10/09/18 00:00 Received: 10/10/18 11:02 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV Analytical Method: EPA 8015B Modified									
Methane	<1.4	ug/L	2.8	1.4	1		10/18/18 13:06	74-82-8	
8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/11/18 19:29	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/11/18 19:29	100-41-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/11/18 19:29	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/11/18 19:29	1330-20-7	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/11/18 19:29	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/11/18 19:29	95-47-6	
<i>Surrogates</i>									
Dibromofluoromethane (S)	93	%	70-130		1		10/11/18 19:29	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/11/18 19:29	2037-26-5	
4-Bromofluorobenzene (S)	91	%	70-130		1		10/11/18 19:29	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 303293 Analysis Method: EPA 8015B Modified
QC Batch Method: EPA 8015B Modified Analysis Description: Methane, Ethane, Ethene GCV
Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004, 40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017

METHOD BLANK: 1771514 Matrix: Water
Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004, 40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	<1.4	2.8	10/16/18 09:24	

LABORATORY CONTROL SAMPLE & LCSD: 1771515 1771516

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Methane	ug/L	28.6	29.1	29.2	102	102	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1771517 1771518

Parameter	Units	40177402006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Methane	ug/L	617	114	114	925	978	270	316	44-167	6	20	M1

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

QC Batch: 303584 Analysis Method: EPA 8015B Modified
 QC Batch Method: EPA 8015B Modified Analysis Description: Methane, Ethane, Ethene GCV
 Associated Lab Samples: 40177402018, 40177402019, 40177402020, 40177402021, 40177402022, 40177402023

METHOD BLANK: 1773347 Matrix: Water
 Associated Lab Samples: 40177402018, 40177402019, 40177402020, 40177402021, 40177402022, 40177402023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	<1.4	2.8	10/18/18 08:49	

LABORATORY CONTROL SAMPLE & LCSD: 1773348 1773349

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Methane	ug/L	28.6	32.0	32.0	112	112	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1773600 1773601

Parameter	Units	40177875005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Methane	ug/L	<1.4	28.6	28.6	27.3	28.6	95	100	44-167	5	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.

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

QC Batch: 302986 Analysis Method: EPA 6020
 QC Batch Method: EPA 3010 Analysis Description: 6020 MET Dissolved
 Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004, 40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017, 40177402018, 40177402019, 40177402020

METHOD BLANK: 1769738 Matrix: Water
 Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004, 40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017, 40177402018, 40177402019, 40177402020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	<58.7	250	10/20/18 04:22	
Antimony, Dissolved	ug/L	<0.15	1.0	10/20/18 04:22	
Copper, Dissolved	ug/L	<1.1	3.6	10/20/18 04:22	
Iron, Dissolved	ug/L	<111	368	10/20/18 04:22	
Manganese, Dissolved	ug/L	<2.7	9.0	10/20/18 04:22	
Nickel, Dissolved	ug/L	<0.40	1.3	10/20/18 04:22	
Silver, Dissolved	ug/L	<0.10	0.50	10/20/18 04:22	
Vanadium, Dissolved	ug/L	<0.32	1.0	10/20/18 04:22	
Zinc, Dissolved	ug/L	15.0J	15.3	10/20/18 04:22	

LABORATORY CONTROL SAMPLE: 1769739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	5000	4910	98	80-120	
Antimony, Dissolved	ug/L	500	520	104	80-120	
Copper, Dissolved	ug/L	500	510	102	80-120	
Iron, Dissolved	ug/L	5000	4940	99	80-120	
Manganese, Dissolved	ug/L	500	486	97	80-120	
Nickel, Dissolved	ug/L	500	491	98	80-120	
Silver, Dissolved	ug/L	250	263	105	80-120	
Vanadium, Dissolved	ug/L	500	487	97	80-120	
Zinc, Dissolved	ug/L	500	519	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769740 1769741

Parameter	Units	40177402006		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Aluminum, Dissolved	ug/L	<117	5000	5000	4770	4790	95	96	75-125	0	20		
Antimony, Dissolved	ug/L	0.68J	500	500	523	517	104	103	75-125	1	20		
Copper, Dissolved	ug/L	4.6J	500	500	482	485	96	96	75-125	0	20		
Iron, Dissolved	ug/L	3690	5000	5000	8560	8760	97	101	75-125	2	20		
Manganese, Dissolved	ug/L	1920	500	500	2440	2420	104	100	75-125	1	20		
Nickel, Dissolved	ug/L	3.0	500	500	471	476	94	95	75-125	1	20		
Silver, Dissolved	ug/L	<0.20	250	250	245	246	98	98	75-125	0	20		
Vanadium, Dissolved	ug/L	1.5J	500	500	487	493	97	98	75-125	1	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769740		1769741		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40177402006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result									
Zinc, Dissolved	ug/L	15.1J	500	500	521	517	101	100	75-125	1	20			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 303722 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET Dissolved
Associated Lab Samples: 40177402021, 40177402022

METHOD BLANK: 1774055 Matrix: Water
Associated Lab Samples: 40177402021, 40177402022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	<58.7	250	10/23/18 14:47	
Antimony, Dissolved	ug/L	<0.15	1.0	10/23/18 14:47	
Copper, Dissolved	ug/L	<1.1	3.6	10/23/18 14:47	
Iron, Dissolved	ug/L	<111	368	10/23/18 14:47	
Manganese, Dissolved	ug/L	<2.7	9.0	10/23/18 14:47	
Nickel, Dissolved	ug/L	<0.40	1.3	10/23/18 14:47	
Silver, Dissolved	ug/L	<0.10	0.50	10/23/18 14:47	
Vanadium, Dissolved	ug/L	<0.32	1.0	10/23/18 14:47	
Zinc, Dissolved	ug/L	5.9J	15.3	10/23/18 14:47	

LABORATORY CONTROL SAMPLE: 1774056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	5000	5080	102	80-120	
Antimony, Dissolved	ug/L	500	534	107	80-120	
Copper, Dissolved	ug/L	500	516	103	80-120	
Iron, Dissolved	ug/L	5000	5140	103	80-120	
Manganese, Dissolved	ug/L	500	477	95	80-120	
Nickel, Dissolved	ug/L	500	491	98	80-120	
Silver, Dissolved	ug/L	250	270	108	80-120	
Vanadium, Dissolved	ug/L	500	493	99	80-120	
Zinc, Dissolved	ug/L	500	504	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1774057 1774058

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40177402021 Result	Spike Conc.	Spike Conc.	MS Result						
Aluminum, Dissolved	ug/L	<117	5000	5000	4840	4970	96	98	75-125	3	20
Antimony, Dissolved	ug/L	0.53J	500	500	517	514	103	103	75-125	1	20
Copper, Dissolved	ug/L	4.5J	500	500	480	479	95	95	75-125	0	20
Iron, Dissolved	ug/L	36400	5000	5000	41200	41900	97	111	75-125	2	20
Manganese, Dissolved	ug/L	968	500	500	1440	1450	94	97	75-125	1	20
Nickel, Dissolved	ug/L	1.3J	500	500	469	467	93	93	75-125	0	20
Silver, Dissolved	ug/L	0.20J	250	250	241	241	96	96	75-125	0	20
Vanadium, Dissolved	ug/L	3.4	500	500	492	490	98	97	75-125	0	20
Zinc, Dissolved	ug/L	16.6J	500	500	506	506	98	98	75-125	0	20

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 302884 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004, 40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402016, 40177402018, 40177402019, 40177402020

METHOD BLANK: 1769059 Matrix: Water
Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004, 40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402016, 40177402018, 40177402019, 40177402020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	<0.25	1.0	10/11/18 16:36	
Ethylbenzene	ug/L	<0.22	1.0	10/11/18 16:36	
m&p-Xylene	ug/L	<0.47	2.0	10/11/18 16:36	
o-Xylene	ug/L	<0.26	1.0	10/11/18 16:36	
Toluene	ug/L	<0.17	5.0	10/11/18 16:36	
Xylene (Total)	ug/L	<1.5	3.0	10/11/18 16:36	
4-Bromofluorobenzene (S)	%	88	70-130	10/11/18 16:36	
Dibromofluoromethane (S)	%	105	70-130	10/11/18 16:36	
Toluene-d8 (S)	%	108	70-130	10/11/18 16:36	

LABORATORY CONTROL SAMPLE: 1769060

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	49.1	98	69-137	
Ethylbenzene	ug/L	50	55.3	111	86-127	
m&p-Xylene	ug/L	100	112	112	70-131	
o-Xylene	ug/L	50	55.8	112	70-130	
Toluene	ug/L	50	57.5	115	84-124	
Xylene (Total)	ug/L	150	168	112	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Dibromofluoromethane (S)	%			88	70-130	
Toluene-d8 (S)	%			113	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769061 1769062

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40177402006 Result	Spike Conc.	Spike Conc.	MS Result						
Benzene	ug/L	<0.25	50	50	50.7	34.8	101	70	66-143	37	20 R1
Ethylbenzene	ug/L	<0.22	50	50	57.1	37.6	114	75	81-136	41	20 M1,R1
m&p-Xylene	ug/L	<0.47	100	100	117	78.3	117	78	70-135	40	20 R1
o-Xylene	ug/L	<0.26	50	50	56.3	38.1	113	76	70-132	39	20 R1
Toluene	ug/L	<0.17	50	50	55.9	39.8	112	80	81-130	34	20 M1,R1
Xylene (Total)	ug/L	<1.5	150	150	174	116	116	78	70-134	39	20 RS
4-Bromofluorobenzene (S)	%						100	97	70-130		
Dibromofluoromethane (S)	%						96	93	70-130		

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1769061		1769062									
Parameter	Units	40177402006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Toluene-d8 (S)	%						107	111	70-130				

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 302931 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 40177402022, 40177402023

METHOD BLANK: 1769300 Matrix: Water
Associated Lab Samples: 40177402022, 40177402023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	<0.25	1.0	10/11/18 16:17	
Ethylbenzene	ug/L	<0.22	1.0	10/11/18 16:17	
m&p-Xylene	ug/L	<0.47	2.0	10/11/18 16:17	
o-Xylene	ug/L	<0.26	1.0	10/11/18 16:17	
Toluene	ug/L	<0.17	5.0	10/11/18 16:17	
Xylene (Total)	ug/L	<1.5	3.0	10/11/18 16:17	
4-Bromofluorobenzene (S)	%	92	70-130	10/11/18 16:17	
Dibromofluoromethane (S)	%	88	70-130	10/11/18 16:17	
Toluene-d8 (S)	%	100	70-130	10/11/18 16:17	

LABORATORY CONTROL SAMPLE: 1769301

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	51.5	103	69-137	
Ethylbenzene	ug/L	50	55.9	112	86-127	
m&p-Xylene	ug/L	100	109	109	70-131	
o-Xylene	ug/L	50	56.3	113	70-130	
Toluene	ug/L	50	52.8	106	84-124	
Xylene (Total)	ug/L	150	166	110	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Dibromofluoromethane (S)	%			95	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769694 1769695

Parameter	Units	40177402022		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	% Rec					
Benzene	ug/L	<0.25	50	50	51.1	51.1	102	102	66-143	0	20		
Ethylbenzene	ug/L	<0.22	50	50	54.1	53.4	108	107	81-136	1	20		
m&p-Xylene	ug/L	<0.47	100	100	107	107	107	107	70-135	1	20		
o-Xylene	ug/L	<0.26	50	50	55.0	54.1	110	108	70-132	2	20		
Toluene	ug/L	<0.17	50	50	51.7	51.3	103	103	81-130	1	20		
Xylene (Total)	ug/L	<1.5	150	150	162	162	108	108	70-134	0	20		
4-Bromofluorobenzene (S)	%						94	101	70-130				
Dibromofluoromethane (S)	%						95	90	70-130				
Toluene-d8 (S)	%						99	96	70-130				

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 303005 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 40177402015, 40177402017, 40177402021

METHOD BLANK: 1769811 Matrix: Water
Associated Lab Samples: 40177402015, 40177402017, 40177402021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	<0.25	1.0	10/12/18 12:05	
Ethylbenzene	ug/L	<0.22	1.0	10/12/18 12:05	
m&p-Xylene	ug/L	<0.47	2.0	10/12/18 12:05	
o-Xylene	ug/L	<0.26	1.0	10/12/18 12:05	
Toluene	ug/L	<0.17	5.0	10/12/18 12:05	
Xylene (Total)	ug/L	<1.5	3.0	10/12/18 12:05	
4-Bromofluorobenzene (S)	%	92	70-130	10/12/18 12:05	
Dibromofluoromethane (S)	%	90	70-130	10/12/18 12:05	
Toluene-d8 (S)	%	101	70-130	10/12/18 12:05	

LABORATORY CONTROL SAMPLE: 1769812

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	47.7	95	69-137	
Ethylbenzene	ug/L	50	52.9	106	86-127	
m&p-Xylene	ug/L	100	108	108	70-131	
o-Xylene	ug/L	50	53.8	108	70-130	
Toluene	ug/L	50	50.6	101	84-124	
Xylene (Total)	ug/L	150	161	108	70-130	
4-Bromofluorobenzene (S)	%			94	70-130	
Dibromofluoromethane (S)	%			88	70-130	
Toluene-d8 (S)	%			93	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1770718 1770719

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40177402015 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Benzene	ug/L	<0.25	50	50	49.2	49.7	98	99	66-143	1	20	
Ethylbenzene	ug/L	10.6	50	50	69.2	70.9	117	120	81-136	2	20	
m&p-Xylene	ug/L	24.7	100	100	143	144	118	119	70-135	1	20	
o-Xylene	ug/L	34.0	50	50	104	106	140	144	70-132	2	20 M1	
Toluene	ug/L	<0.17	50	50	52.2	52.7	104	105	81-130	1	20	
Xylene (Total)	ug/L	58.8	150	150	247	250	125	127	70-134	1	20 MS	
4-Bromofluorobenzene (S)	%						98	98	70-130			
Dibromofluoromethane (S)	%						93	94	70-130			
Toluene-d8 (S)	%						100	98	70-130			

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 303132 Analysis Method: EPA 8270 by HVI
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI
Associated Lab Samples: 40177402005, 40177402006, 40177402007, 40177402008, 40177402009

METHOD BLANK: 1770736 Matrix: Water
Associated Lab Samples: 40177402005, 40177402006, 40177402007, 40177402008, 40177402009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Anthracene	ug/L	<0.010	0.052	10/15/18 11:59	
Benzo(a)pyrene	ug/L	<0.011	0.053	10/15/18 11:59	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	10/15/18 11:59	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	10/15/18 11:59	
Chrysene	ug/L	<0.013	0.065	10/15/18 11:59	
Fluoranthene	ug/L	<0.011	0.053	10/15/18 11:59	
Fluorene	ug/L	<0.0080	0.040	10/15/18 11:59	
Naphthalene	ug/L	<0.018	0.092	10/15/18 11:59	
Phenanthrene	ug/L	<0.014	0.069	10/15/18 11:59	
Pyrene	ug/L	<0.0076	0.038	10/15/18 11:59	
2-Fluorobiphenyl (S)	%	64	29-80	10/15/18 11:59	
Terphenyl-d14 (S)	%	109	10-123	10/15/18 11:59	

LABORATORY CONTROL SAMPLE: 1770737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Anthracene	ug/L	2	1.4	71	57-120	
Benzo(a)pyrene	ug/L	2	1.4	72	55-108	
Benzo(b)fluoranthene	ug/L	2	1.4	70	47-106	
Benzo(g,h,i)perylene	ug/L	2	0.87	44	20-75	
Chrysene	ug/L	2	1.5	76	64-140	
Fluoranthene	ug/L	2	1.3	67	61-112	
Fluorene	ug/L	2	1.3	65	53-120	
Naphthalene	ug/L	2	1.0	51	38-90	
Phenanthrene	ug/L	2	1.3	67	47-105	
Pyrene	ug/L	2	1.7	87	62-119	
2-Fluorobiphenyl (S)	%			57	29-80	
Terphenyl-d14 (S)	%			91	10-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1770738 1770739

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40177402006 Result	Spike Conc.	Spike Conc.	Conc.								
Anthracene	ug/L	0.028J	2.1	2.1	2.1	1.6	1.5	72	68	37-120	5	27	
Benzo(a)pyrene	ug/L	<0.011	2.1	2.1	2.1	1.0	1.0	49	48	10-108	3	29	
Benzo(b)fluoranthene	ug/L	<0.0060	2.1	2.1	2.1	1.1	1.0	50	48	10-106	4	27	
Benzo(g,h,i)perylene	ug/L	<0.0071	2.1	2.1	2.1	0.48	0.45	23	21	10-120	6	33	
Chrysene	ug/L	<0.014	2.1	2.1	2.1	1.4	1.4	67	66	19-140	3	30	

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1770738		1770739		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40177402006 Result	MS Spike Conc.	MSD Spike Conc.									
Fluoranthene	ug/L	<0.011	2.1	2.1	1.3	1.3	62	60	38-112	4	28		
Fluorene	ug/L	<0.0083	2.1	2.1	1.5	1.4	68	65	42-120	5	25		
Naphthalene	ug/L	<0.019	2.1	2.1	1.3	1.2	60	57	38-120	5	26		
Phenanthrene	ug/L	<0.014	2.1	2.1	1.4	1.4	67	64	39-105	4	24		
Pyrene	ug/L	0.032J	2.1	2.1	1.8	1.7	82	79	38-119	4	32		
2-Fluorobiphenyl (S)	%						63	61	29-80				
Terphenyl-d14 (S)	%						79	78	10-123				

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 303212 Analysis Method: EPA 8270 by HVI
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI
Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004

METHOD BLANK: 1771248 Matrix: Water
Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Anthracene	ug/L	<0.010	0.052	10/16/18 10:06	
Benzo(a)pyrene	ug/L	<0.011	0.053	10/16/18 10:06	
Benzo(b)fluoranthene	ug/L	0.0059J	0.029	10/16/18 10:06	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	10/16/18 10:06	
Chrysene	ug/L	<0.013	0.065	10/16/18 10:06	
Fluoranthene	ug/L	<0.011	0.053	10/16/18 10:06	
Fluorene	ug/L	<0.0080	0.040	10/16/18 10:06	
Naphthalene	ug/L	<0.018	0.092	10/16/18 10:06	
Phenanthrene	ug/L	<0.014	0.069	10/16/18 10:06	
Pyrene	ug/L	<0.0076	0.038	10/16/18 10:06	
2-Fluorobiphenyl (S)	%	66	29-80	10/16/18 10:06	
Terphenyl-d14 (S)	%	124	10-123	10/16/18 10:06	S3

LABORATORY CONTROL SAMPLE & LCSD: 1771249

Parameter	Units	1771250								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Anthracene	ug/L	2	1.8	1.9	89	94	57-120	6	27	
Benzo(a)pyrene	ug/L	2	1.9	1.9	95	97	55-108	3	20	
Benzo(b)fluoranthene	ug/L	2	1.9	1.8	95	92	47-106	3	20	
Benzo(g,h,i)perylene	ug/L	2	1.1	1.2	57	58	20-75	1	33	
Chrysene	ug/L	2	2.0	2.0	99	100	64-140	1	20	
Fluoranthene	ug/L	2	1.8	1.8	90	91	61-112	2	24	
Fluorene	ug/L	2	1.6	1.7	78	87	53-120	11	21	
Naphthalene	ug/L	2	1.3	1.3	65	66	38-90	1	21	
Phenanthrene	ug/L	2	1.7	1.8	83	92	47-105	10	20	
Pyrene	ug/L	2	2.2	2.2	111	110	62-119	1	24	
2-Fluorobiphenyl (S)	%				66	72	29-80			
Terphenyl-d14 (S)	%				122	120	10-123			

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 303276 Analysis Method: EPA 8270 by HVI
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI
Associated Lab Samples: 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017, 40177402018, 40177402019, 40177402020, 40177402021, 40177402022

METHOD BLANK: 1771412 Matrix: Water
Associated Lab Samples: 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017, 40177402018, 40177402019, 40177402020, 40177402021, 40177402022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Anthracene	ug/L	<0.010	0.052	10/16/18 12:32	
Benzo(a)pyrene	ug/L	<0.011	0.053	10/16/18 12:32	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	10/16/18 12:32	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	10/16/18 12:32	
Chrysene	ug/L	<0.013	0.065	10/16/18 12:32	
Fluoranthene	ug/L	<0.011	0.053	10/16/18 12:32	
Fluorene	ug/L	<0.0080	0.040	10/16/18 12:32	
Naphthalene	ug/L	<0.018	0.092	10/16/18 12:32	
Phenanthrene	ug/L	<0.014	0.069	10/16/18 12:32	
Pyrene	ug/L	<0.0076	0.038	10/16/18 12:32	
2-Fluorobiphenyl (S)	%	59	29-80	10/16/18 12:32	
Terphenyl-d14 (S)	%	102	10-123	10/16/18 12:32	

LABORATORY CONTROL SAMPLE & LCSD: 1771413 1771414

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Anthracene	ug/L	2	1.7	1.6	85	78	57-120	9	27	
Benzo(a)pyrene	ug/L	2	1.7	1.6	87	79	55-108	10	20	
Benzo(b)fluoranthene	ug/L	2	1.7	1.5	83	73	47-106	12	20	
Benzo(g,h,i)perylene	ug/L	2	1.2	1.1	59	53	20-75	10	33	
Chrysene	ug/L	2	1.9	1.7	96	87	64-140	10	20	
Fluoranthene	ug/L	2	1.7	1.5	84	75	61-112	11	24	
Fluorene	ug/L	2	1.4	1.5	71	74	53-120	5	21	
Naphthalene	ug/L	2	1.2	1.2	61	59	38-90	2	21	
Phenanthrene	ug/L	2	1.5	1.5	77	75	47-105	4	20	
Pyrene	ug/L	2	2.0	1.8	98	90	62-119	9	24	
2-Fluorobiphenyl (S)	%				61	68	29-80			
Terphenyl-d14 (S)	%				105	99	10-123			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 303041 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40177402001, 40177402002, 40177402003

METHOD BLANK: 1769954 Matrix: Water
Associated Lab Samples: 40177402001, 40177402002, 40177402003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<1.0	3.0	10/17/18 10:29	

LABORATORY CONTROL SAMPLE: 1769955

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	21.2	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769956 1769957

Parameter	Units	40177482001 Result	MS		MSD		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Conc.	Result	Result							
Sulfate	mg/L	68.4	400	400	500	506	108	109	90-110	1	15		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769958 1769959

Parameter	Units	40177402003 Result	MS		MSD		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Conc.	Result	Result							
Sulfate	mg/L	58.1	200	200	264	275	103	109	90-110	4	15		

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

QC Batch: 303197 Analysis Method: EPA 300.0
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
 Associated Lab Samples: 40177402004, 40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017

METHOD BLANK: 1771183 Matrix: Water
 Associated Lab Samples: 40177402004, 40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<1.0	3.0	10/18/18 10:13	

LABORATORY CONTROL SAMPLE: 1771184

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	20.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1771185 1771186

Parameter	Units	40177530001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	16.4	100	100	126	127	110	111	90-110	1	15	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1771187 1771188

Parameter	Units	40177402006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	34.4	20	20	54.7	54.8	101	102	90-110	0	15	

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 303387 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40177402018, 40177402019, 40177402020, 40177402021, 40177402022

METHOD BLANK: 1771993 Matrix: Water
Associated Lab Samples: 40177402018, 40177402019, 40177402020, 40177402021, 40177402022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<1.0	3.0	10/19/18 13:40	

LABORATORY CONTROL SAMPLE: 1771994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.7	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1771995 1771996

Parameter	Units	40177402018 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfate	mg/L	8.4J	100	100	108	109	99	101	90-110	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1771997 1771998

Parameter	Units	40177016021 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfate	mg/L	10.7	20	20	30.7	31.0	100	101	90-110	1	15	

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

QC Batch: 303184 Analysis Method: EPA 310.2
 QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
 Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004, 40177402005, 40177402006

METHOD BLANK: 1771052 Matrix: Water
 Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004, 40177402005, 40177402006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	10/15/18 13:21	

LABORATORY CONTROL SAMPLE: 1771053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	107	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1771054 1771055

Parameter	Units	40177208002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	494	500	500	995	993	100	100	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1771056 1771057

Parameter	Units	40177402006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	506	500	500	1010	925	102	84	90-110	9	20	M0

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 303323 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40177402017, 40177402018, 40177402019, 40177402020, 40177402021, 40177402022

METHOD BLANK: 1771625 Matrix: Water
Associated Lab Samples: 40177402017, 40177402018, 40177402019, 40177402020, 40177402021, 40177402022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	10/16/18 12:39	

LABORATORY CONTROL SAMPLE: 1771626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	97.6	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1771627 1771628

Parameter	Units	1771627		1771628		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40177467001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	386	200	200	569	564	91	89	90-110	1	20 M0

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

QC Batch: 302918 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004

METHOD BLANK: 1769260 Matrix: Water
Associated Lab Samples: 40177402001, 40177402002, 40177402003, 40177402004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	<0.095	0.25	10/11/18 13:34	

LABORATORY CONTROL SAMPLE: 1769261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.4	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769262 1769263

Parameter	Units	40177335004 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits		
Nitrogen, NO2 plus NO3	mg/L	<0.095	2.5	2.5	2.4	2.4	94	94	90-110	0	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769264 1769265

Parameter	Units	40177402004 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits		
Nitrogen, NO2 plus NO3	mg/L	0.63	2.5	2.5	3.0	3.0	95	95	90-110	0	20

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QUALITY CONTROL DATA

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

QC Batch:	303020	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, preserved
Associated Lab Samples:	40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017, 40177402018, 40177402019, 40177402020, 40177402021, 40177402022		

METHOD BLANK:	1769844	Matrix:	Water
Associated Lab Samples:	40177402005, 40177402006, 40177402007, 40177402008, 40177402009, 40177402010, 40177402011, 40177402012, 40177402013, 40177402014, 40177402015, 40177402016, 40177402017, 40177402018, 40177402019, 40177402020, 40177402021, 40177402022		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	<0.095	0.25	10/12/18 10:58	

LABORATORY CONTROL SAMPLE: 1769845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769846 1769847

Parameter	Units	40177402006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	<0.095	2.5	2.5	2.5	2.5	97	98	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1769848 1769849

Parameter	Units	40177402021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	<0.095	2.5	2.5	2.2	2.2	86	85	90-110	0	20 M0	

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QUALIFIERS

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

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

BATCH QUALIFIERS

Batch: 303284
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
Batch: 303397
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

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.
M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MS Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.
R1 RPD value was outside control limits.
RS The RPD value in one of the constituent analytes was outside the control limits.
S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40177402001	100818001	EPA 8015B Modified	303293		
40177402002	100818002	EPA 8015B Modified	303293		
40177402003	100818003	EPA 8015B Modified	303293		
40177402004	100818004	EPA 8015B Modified	303293		
40177402005	100818005	EPA 8015B Modified	303293		
40177402006	100818006	EPA 8015B Modified	303293		
40177402007	100818007	EPA 8015B Modified	303293		
40177402008	100818008	EPA 8015B Modified	303293		
40177402009	100818009	EPA 8015B Modified	303293		
40177402010	100918010	EPA 8015B Modified	303293		
40177402011	100918011	EPA 8015B Modified	303293		
40177402012	100918012	EPA 8015B Modified	303293		
40177402013	100918013	EPA 8015B Modified	303293		
40177402014	100918014	EPA 8015B Modified	303293		
██████████	██████████	██████████	██████████		
40177402016	100918016	EPA 8015B Modified	303293		
40177402017	100918017	EPA 8015B Modified	303293		
40177402018	100918018	EPA 8015B Modified	303584		
40177402019	100918019	EPA 8015B Modified	303584		
40177402020	100918020	EPA 8015B Modified	303584		
40177402021	100918021	EPA 8015B Modified	303584		
40177402022	100918022	EPA 8015B Modified	303584		
40177402023	100918023	EPA 8015B Modified	303584		
40177402001	100818001	EPA 3010	302986	EPA 6020	303071
40177402002	100818002	EPA 3010	302986	EPA 6020	303071
40177402003	100818003	EPA 3010	302986	EPA 6020	303071
40177402004	100818004	EPA 3010	302986	EPA 6020	303071
40177402005	100818005	EPA 3010	302986	EPA 6020	303071
40177402006	100818006	EPA 3010	302986	EPA 6020	303071
40177402007	100818007	EPA 3010	302986	EPA 6020	303071
40177402008	100818008	EPA 3010	302986	EPA 6020	303071
40177402009	100818009	EPA 3010	302986	EPA 6020	303071
40177402010	100918010	EPA 3010	302986	EPA 6020	303071
40177402011	100918011	EPA 3010	302986	EPA 6020	303071
40177402012	100918012	EPA 3010	302986	EPA 6020	303071
40177402013	100918013	EPA 3010	302986	EPA 6020	303071
40177402014	100918014	EPA 3010	302986	EPA 6020	303071
██████████	██████████	██████████	██████████	██████████	██████████
40177402016	100918016	EPA 3010	302986	EPA 6020	303071
40177402017	100918017	EPA 3010	302986	EPA 6020	303071
40177402018	100918018	EPA 3010	302986	EPA 6020	303071
40177402019	100918019	EPA 3010	302986	EPA 6020	303071
40177402020	100918020	EPA 3010	302986	EPA 6020	303071
40177402021	100918021	EPA 3010	303722	EPA 6020	303795
40177402022	100918022	EPA 3010	303722	EPA 6020	303795
40177402001	100818001	EPA 3510	303212	EPA 8270 by HVI	303284
40177402002	100818002	EPA 3510	303212	EPA 8270 by HVI	303284

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40177402003	100818003	EPA 3510	303212	EPA 8270 by HVI	303284
40177402004	100818004	EPA 3510	303212	EPA 8270 by HVI	303284
40177402005	100818005	EPA 3510	303132	EPA 8270 by HVI	303204
40177402006	100818006	EPA 3510	303132	EPA 8270 by HVI	303204
40177402007	100818007	EPA 3510	303132	EPA 8270 by HVI	303204
40177402008	100818008	EPA 3510	303132	EPA 8270 by HVI	303204
40177402009	100818009	EPA 3510	303132	EPA 8270 by HVI	303204
40177402010	100918010	EPA 3510	303276	EPA 8270 by HVI	303397
40177402011	100918011	EPA 3510	303276	EPA 8270 by HVI	303397
40177402012	100918012	EPA 3510	303276	EPA 8270 by HVI	303397
40177402013	100918013	EPA 3510	303276	EPA 8270 by HVI	303397
40177402014	100918014	EPA 3510	303276	EPA 8270 by HVI	303397
██████████	██████████	██████████	██████████	██████████	██████████
40177402016	100918016	EPA 3510	303276	EPA 8270 by HVI	303397
40177402017	100918017	EPA 3510	303276	EPA 8270 by HVI	303397
40177402018	100918018	EPA 3510	303276	EPA 8270 by HVI	303397
40177402019	100918019	EPA 3510	303276	EPA 8270 by HVI	303397
40177402020	100918020	EPA 3510	303276	EPA 8270 by HVI	303397
40177402021	100918021	EPA 3510	303276	EPA 8270 by HVI	303397
40177402022	100918022	EPA 3510	303276	EPA 8270 by HVI	303397
40177402001	100818001	EPA 8260	302884		
40177402002	100818002	EPA 8260	302884		
40177402003	100818003	EPA 8260	302884		
40177402004	100818004	EPA 8260	302884		
40177402005	100818005	EPA 8260	302884		
40177402006	100818006	EPA 8260	302884		
40177402007	100818007	EPA 8260	302884		
40177402008	100818008	EPA 8260	302884		
40177402009	100818009	EPA 8260	302884		
40177402010	100918010	EPA 8260	302884		
40177402011	100918011	EPA 8260	302884		
40177402012	100918012	EPA 8260	302884		
40177402013	100918013	EPA 8260	302884		
40177402014	100918014	EPA 8260	302884		
██████████	██████████	██████████	██████████		
40177402016	100918016	EPA 8260	302884		
40177402017	100918017	EPA 8260	303005		
40177402018	100918018	EPA 8260	302884		
40177402019	100918019	EPA 8260	302884		
40177402020	100918020	EPA 8260	302884		
40177402021	100918021	EPA 8260	303005		
40177402022	100918022	EPA 8260	302931		
40177402023	100918023	EPA 8260	302931		
40177402001	100818001	EPA 300.0	303041		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 67979/232 MARINETTE FORMER MGP
Pace Project No.: 40177402

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40177402002	100818002	EPA 300.0	303041		
40177402003	100818003	EPA 300.0	303041		
40177402004	100818004	EPA 300.0	303197		
40177402005	100818005	EPA 300.0	303197		
40177402006	100818006	EPA 300.0	303197		
40177402007	100818007	EPA 300.0	303197		
40177402008	100818008	EPA 300.0	303197		
40177402009	100818009	EPA 300.0	303197		
40177402010	100918010	EPA 300.0	303197		
40177402011	100918011	EPA 300.0	303197		
40177402012	100918012	EPA 300.0	303197		
40177402013	100918013	EPA 300.0	303197		
40177402014	100918014	EPA 300.0	303197		
██████████	██████████	██████████	██████████		
40177402016	100918016	EPA 300.0	303197		
40177402017	100918017	EPA 300.0	303197		
40177402018	100918018	EPA 300.0	303387		
40177402019	100918019	EPA 300.0	303387		
40177402020	100918020	EPA 300.0	303387		
40177402021	100918021	EPA 300.0	303387		
40177402022	100918022	EPA 300.0	303387		
40177402001	100818001	EPA 310.2	303184		
40177402002	100818002	EPA 310.2	303184		
40177402003	100818003	EPA 310.2	303184		
40177402004	100818004	EPA 310.2	303184		
40177402005	100818005	EPA 310.2	303184		
40177402006	100818006	EPA 310.2	303184		
40177402007	100818007	EPA 310.2	303243		
40177402008	100818008	EPA 310.2	303243		
40177402009	100818009	EPA 310.2	303243		
40177402010	100918010	EPA 310.2	303243		
40177402011	100918011	EPA 310.2	303243		
40177402012	100918012	EPA 310.2	303243		
40177402013	100918013	EPA 310.2	303243		
40177402014	100918014	EPA 310.2	303243		
██████████	██████████	██████████	██████████		
40177402016	100918016	EPA 310.2	303243		
40177402017	100918017	EPA 310.2	303323		
40177402018	100918018	EPA 310.2	303323		
40177402019	100918019	EPA 310.2	303323		
40177402020	100918020	EPA 310.2	303323		
40177402021	100918021	EPA 310.2	303323		
40177402022	100918022	EPA 310.2	303323		
40177402001	100818001	EPA 353.2	302918		
40177402002	100818002	EPA 353.2	302918		
40177402003	100818003	EPA 353.2	302918		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 67979/232 MARINETTE FORMER MGP

Pace Project No.: 40177402

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40177402004	100818004	EPA 353.2	302918		
40177402005	100818005	EPA 353.2	303020		
40177402006	100818006	EPA 353.2	303020		
40177402007	100818007	EPA 353.2	303020		
40177402008	100818008	EPA 353.2	303020		
40177402009	100818009	EPA 353.2	303020		
40177402010	100918010	EPA 353.2	303020		
40177402011	100918011	EPA 353.2	303020		
40177402012	100918012	EPA 353.2	303020		
40177402013	100918013	EPA 353.2	303020		
40177402014	100918014	EPA 353.2	303020		
██████████	██████████	██████████	██████████		
40177402016	100918016	EPA 353.2	303020		
40177402017	100918017	EPA 353.2	303020		
40177402018	100918018	EPA 353.2	303020		
40177402019	100918019	EPA 353.2	303020		
40177402020	100918020	EPA 353.2	303020		
40177402021	100918021	EPA 353.2	303020		
40177402022	100918022	EPA 353.2	303020		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

67979-1018-001
40177402
Page 75 of 79

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: O'Brien and Gere Engineers, Inc.		Report To: GDSdata@OBG.com		Attention: Accounts Payable	
Address: 234 W. Florida St Milwaukee, WI		Copy To: Marcus Byker		Company Name: WEC Business Services, LLC	
Email To: GDSdata@OBG.com		Purchase Order No.: 3400010643		Address: PO Box 19800, Green Bay, WI 54307	
Phone: 773-796-4359 Fax:		Project Name: Marinette Former MGP		Pace Quote Reference: 3400010643	
Requested Due Date/TAT: standard		Project Number: 67979/232		Pace Project Manager:	
				Pace Profile #:	
				REGULATORY AGENCY	
				<input type="checkbox"/> NPDES <input checked="" type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER	
				Site Location: WI	
				STATE: WI	

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / . -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Requested Analysis Filtered (Y/N)											Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.				
					DATE	TIME	DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test	BTEX 8260B	Methane 8015B			PAH 8270-SIM	Metals 6020A *	Alkalinity 310.2	Sulfate 300.0
1	100818001		GC				10-08-13	1307	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		001
2	100818002							1349	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		002
3	100818003							1419	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		003
4	100818004							1456	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		004
5	100818005							1501		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		005
6	100818006							1534		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	MS/MSD -	006
7	100818007							1621		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		007
8	100818008							1705		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		008
9	100818009		DI					1730		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		009
10	100918010		GC				10-9-13	0858		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		010
11	100918011							0900		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		011
12	100918012							1039		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
EPA Level 2	<i>[Signature]</i>	10-16-13	1102	<i>[Signature]</i>	10/16/13	1102	MSD	Y	N	Y
*Dissolved Metals: Aluminum, Antimony, Copper, Iron, Manganese, Nickel, Silver, Vanadium, Zinc.										

SAMPLER NAME AND SIGNATURE				Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: <i>Alex Byker</i>							
SIGNATURE of SAMPLER: <i>Alex Byker</i>							
DATE Signed (MM/DD/YY):							



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

67979-1013-002

QC: DJM 10-10-13

4077402

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 1	
Company: O'Brien and Gere Engineers, Inc.		Report To: GDSdata@OBG.com		Attention: Accounts Payable			
Address: 234 W. Florida St Milwaukee, WI		Copy To: Marcus Byker		Company Name: WEC Business Services, LLC		REGULATORY AGENCY	
Email To: GDSdata@OBG.com		Purchase Order No.: 3400010643		Address: PO Box 19800, Green Bay, WI 54307		<input type="checkbox"/> NPDES <input checked="" type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER	
Phone: 773-796-4359 Fax:		Project Name: Marinette Former MGP		Pace Quote Reference: 3400010643		Site Location	
Requested Due Date/TAT: standard		Project Number: 67979/232		Pace Project Manager		STATE: WI	
				Pace Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Requested Analysis Filtered (Y/N)											Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.						
						COMPOSITE START		COMPOSITE END/GRAB		Preservatives														
						DATE	TIME	DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol			Other	Analysis Test	BTEX 8260B	Methane 8015B	PAH 8270-SIM	Metals 6020A*
1	100918013	GW	12-9-13 1100	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	013
2	100918014		1130	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	014
3	100918015		1216	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	015
4	100918016		1301	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	016
5	100918017		1344	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	017
6	100918018		1436	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	018
7	100918019		1441	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	019
8	100918020		1529	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	020
9	100918021		1605	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	021
10	100918022	DI	1635	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	022
11	100918023	LAS	NA	2																				023

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
EPA Level 2	<i>Alex Barakat / OBG</i>	10-10-13	1102	<i>[Signature]</i>	10/10/13	1102	AsT	Y	N	Y
*Dissolved Metals: Aluminum, Antimony, Copper, Iron, Manganese, Nickel, Silver, Vanadium, Zinc.										

Drop off in person @ PALE

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples intact (Y/N)
PRINT Name of SAMPLER:	<i>Alex Barakat</i>				
SIGNATURE of SAMPLER:	<i>[Signature]</i>				
DATE Signed (MM/DD/YY):	10/09/13				



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
F-GB-C-031-Rev.07

Document Revised: 25Apr2018
Issuing Authority:
Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: O'Brien and Gere Eng Project #: WO# : 40177402

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



Tracking #: _____
Custody Seal on Cooler/Box Present: yes no Seals intact: yes no
Custody Seal on Samples Present: yes no Seals intact: yes no
Packing Material: Bubble Wrap Bubble Bags None Other _____
Thermometer Used SR - N/A Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun
Cooler Temperature Uncorr: ROT Corr: _____

Temp Blank Present: yes no Biological Tissue is Frozen: yes no
Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 10-10-18
Initials: SW

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		<u>O13-2-40ml v B ID is 100918012 - Collect date and time match</u>
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<u>10-10-18 SW</u>
Pace Trip Blank Lot # (if purchased): <u>407</u>		

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

Project Manager Review: [Signature] Date: 10-11-18