



Wisconsin Public Service Corporation

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

December 15, 2016

Ms. Margaret Gielniewski
Ms. Leslie Patterson
USEPA Region 5 – SR6J
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

RE: November 2016 Monthly Progress Reports
Wisconsin Public Service Corporation
CERCLA Docket No. V-W-06-C-847

Please find enclosed the monthly progress reports for the Wisconsin Public Service Corporation's former manufactured gas plant sites. If you have any questions, please don't hesitate to contact me at (920) 433-2643 or bfbartoszek@integrysgroup.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'BBA', with a horizontal line extending to the right.

Brian Bartoszek, P.E.
Manager – Remediation

Enclosures as noted

cc: Ms. Kristin DuFresne, WDNR (hardcopy and email)
Mr. Jim Killian, WDNR (hardcopy and email)
Ms. Cheryl Bougie, WDNR (hardcopy and email)
Ms. Jennifer Knoepfle, CH2M (email only)
Mr. Tom Hvizdak, WDNR (email)
Mr. Donald Grasser, WDNR (email)
Mr. William Fitzpatrick, WDNR (email)
Ms. Adrienne Korpela, CH2M (email)
Mr. Rob Thiboldeaux, WDHS (email)
Mr. Tauren Beggs, WDNR (hardcopy and email)
Ms. Liz Victor, WDNR (hardcopy and email)



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
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Mr. Brian F. Bartoszek, PE
WEC Business Services, LLC
700 N Adams Street
Green Bay, WI 54307-9001

December 13, 2016
(1549)
(via email only)

RE: November 2016 Monthly Progress Report
Marinette Former MGP, Marinette, Wisconsin
Wisconsin Public Service Corporation

CERCLA Docket No. V-W-06-C-847
Site Spill ID – B5BT
CERCLIS ID – WIN000509952

Dear Mr. Bartoszek:

Natural Resource Technology, Inc. (NRT) is providing this Monthly Progress Report for the Wisconsin Public Service Corporation (WPSC) Marinette Former Manufactured Gas Plant (MGP).

1) Progress Made During the Past Month

- Received USEPA comments on Feasibility Study Revision 2 on November 15, 2016.
- Submitted supplemental evaluation of Vapor Intrusion pathway in the vicinity of the northwest corner of Mann and Ludington Streets for submittal as a Technical Memorandum to USEPA on November 16, 2016.

2) Analytical and Other Testing Results Received

- Groundwater results and a site map have been attached to this letter.

3) Projected Work

WPSC Actions

- Review and prepare response to USEPA comments on FS Study Revision 2.
- Support USEPA's desire to achieve a Record of Decision (ROD) in June 2017.

USEPA Actions

- Review supplemental VI evaluation technical memorandum.



4) Anticipated Schedule

Deliverable or Milestone	Target Date	Actual Date
Submitted Completion Report – Rev 0	May 12, 2009	May 11, 2009
For a listing of all work activities between May 11, 2009 and April 14, 2015, please see the July 2015 Monthly Progress Report		
2015 semi-annual groundwater sampling	April and October 2015	April 14, 2015 and October 27, 2015
Complete Bathymetric Survey of Sand Layer	April 2015	April 27, 2015
Received USEPA Approval of RI Report Rev 2	March 2015	March 30, 2015
Receive USEPA comments on Alternatives Array	May 7, 2015	May 15, 2015
Submit summary of Bathymetry survey in Residual Sand Cover Monitoring Results letter report	June 30, 2015	July 2, 2015
Submit FS Report Revision 0	July 13, 2015	July 10, 2015
Receive USEPA comments Residual Sand Cover Monitoring Results letter		July 27, 2015
Receive USEPA comments on FS Revision 0		September 4, 2015
Receive USEPA comments on ARAR Table	February 16, 2016	
Submit FS Report Revision 1 without ARAR Table	February 18, 2016	February 18, 2016
Submit revised ARAR Table	March 18, 2016	March 8, 2016
Receive USEPA comments on FS Revision 1		March 25, 2016
2016 semi-annual groundwater sampling	April and October 2016	April 13, 2016 and October 19, 2016
Submit FS Report Revision 2	May 23, 2016	May 20, 2016
Technical Memo 3 Supplemental VI Evaluation	November 2016	
Receive USEPA comments on FS Revision 2		November 15, 2016

5) Problems or Potential Problems Encountered

- None.

6) Actual or Planned Resolution of Problems or Potential Problems

- None.



Mr. Brian Bartoszek
December 13, 2016
Page 3



Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.

A handwritten signature in black ink, appearing to read "Brian Hennings".

Brian Hennings, PG
Hydrogeologist/Project Manager

A handwritten signature in black ink, appearing to read "Jennifer M. Hagen".

Jennifer M. Hagen, PE
Principal Engineer

For distribution to:

- Ms. Margaret Gielniewski (electronic copy)
- Ms. Kristin DuFresne, WDNR (hardcopy and electronic)
- Mr. Jim Killian, WDNR (hardcopy and electronic)
- Ms. Cheryl Bougie, WDNR (hardcopy and electronic)
- Ms. Jennifer Knoepfle, CH2M (electronic copy)

encl: Site Map
October 2016 Groundwater Results Tables

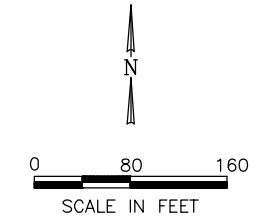
[File:\1549 November 2016 WPSC Marinette 161213.doc]

Jun 21, 2015 1:52pm PLOTTED BY: ddudd SAVED BY: ddudd
 I:\ACADData\Projects\151549 Marquette\17-5 RI Report Rev2\1549-175-B06.dwg -Layout1
 XREFS: Y:\ACADData\Projects\151549 Marquette\17-5 RI Report Rev\XREF\1549-175-Base 2.dwg



	MONITORING WELL
	PIEZOMETER
	ABANDONED MONITORING WELL
	ABANDONED PIEZOMETER
	SOIL GAS PROBE
	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 7m755606.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 WPSC 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 WPSC 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.

DRAWN BY:	DMD	DATE:	11/13/14
CHECKED BY:	NDK	DATE:	11/24/14
APPROVED BY:	BGH	DATE:	01/21/15
DRAWING NO:		1549-175-B06	
REFERENCE:			

Site Map



PROJECT NO.
1549/17.5

FIGURE NO.
1

October 2016 Groundwater Sample Results - VOCs

Wisconsin Public Service Corporation - Marinette Former MGP, Marinette, Wisconsin
 CERCLIS ID -WIN000509952

		BTEX	BTEX	BTEX	BTEX	BTEX	BTEX
Sample Location	Sample Date	Benzene (ug/L)	Ethylbenzene (ug/L)	Toluene (ug/L)	Xylenes, m + p (ug/L)	Xylene, o (ug/L)	Xylenes, Total (ug/L)
101816001 MW312	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816002 MW305	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816003 P302	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816004 MW302	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816005 MW304	10/18/2016	14.1	1.3	0.64 J	< 1.0 U	1.2	1.8 J
101816006 MW304 QA/QC1	10/18/2016	12.4	1.2	0.53 J	< 1.0 U	1.2	1.7 J
101816007 MW303	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816008 MW313	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816009 MW05	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816010 MW03R	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816011 P303	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816012 MW308	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816013 P305	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816014 MW306	10/18/2016	< 2.0 U	34.4	< 2.0 U	91.3	112	204
101816015 MW306 QA/QC2	10/18/2016	< 2.0 U	37.6	< 2.0 U	101	113	214
101816016 P304	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101816017 MW311	10/18/2016	178	103	7.7 J	11.9 J	58	69.9
101816018 MW307R	10/18/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101916019 MW310	10/19/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101916020 MW01R	10/19/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101916021 Equipment Blank	10/19/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101916022 Trip Blank	10/19/2016	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U	< 1.5 U
101916023 BM301	10/18/2016	--	--	--	--	--	--

[O:ECK 12/5/16, C:SGW 12/6/16, A: BGH12/8/16]

Notes:

-- = Analysis not performed

< = Concentration is less than reported limit

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

U = Not detected

Definitions for additional data qualifiers can be found in associated laboratory and validation reports.

QA/QC = Quality Control Field Duplicate Sample

BTEX = Benzene, Toluene, Ethylbenzene and Xylene

VOC = Volatile Organic Compound

ug/L = micrograms per liter

Sample Location	Sample Date	TPAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH
		PAH, Total (ug/L)	1-Methylnaphthalene (ug/L)	2-Methylnaphthalene (ug/L)	Acenaphthene (ug/L)	Acenaphthylene (ug/L)	Anthracene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(g,h,i)perylene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Naphthalene (ug/L)	Phenanthrene (ug/L)	Pyrene (ug/L)
101816001 MW312	10/18/2016	0.89	0.039	0.020 J	0.24	0.016 J	0.043 J	< 0.0072 U	< 0.010 U	0.013 J	0.0073 J	< 0.0072 U	0.019 J	< 0.0095 U	0.095	0.16	< 0.017 U	0.046 J	0.073	0.08
101816002 MW305	10/18/2016	0.044	< 0.0058 U	< 0.0048 U	< 0.0060 U	< 0.0049 U	< 0.010 U	< 0.0074 U	< 0.010 U	< 0.0056 U	< 0.0066 U	< 0.0074 U	< 0.013 U	< 0.0098 U	< 0.010 U	< 0.0078 U	< 0.017 U	< 0.018 U	< 0.014 U	< 0.0075 U
101816003 P302	10/18/2016	0.17	< 0.0058 U	< 0.0049 U	< 0.0060 U	0.0091 J	< 0.010 U	0.013 J	< 0.010 U	0.0090 J	< 0.0067 U	< 0.0075 U	0.016 J	< 0.0099 U	0.025 J	< 0.0079 U	< 0.017 U	< 0.018 U	0.022 J	0.031 J
101816004 MW302	10/18/2016	0.044	< 0.0057 U	0.0052 J	< 0.0058 U	< 0.0048 U	< 0.010 U	< 0.0073 U	< 0.010 U	< 0.0055 U	< 0.0065 U	< 0.0073 U	< 0.013 U	< 0.0096 U	< 0.010 U	< 0.0077 U	< 0.017 U	0.019 J	< 0.013 U	< 0.0074 U
101816005 MW304	10/18/2016	0.41	0.046	< 0.0048 U	0.081	0.062	0.089	< 0.0073 U	< 0.010 U	0.0068 J	< 0.0066 U	< 0.0073 U	< 0.013 U	< 0.0097 U	0.018 J	< 0.0077 U	< 0.017 U	0.063 J	< 0.013 U	0.015 J
101816006 MW304 QA/QC1	10/18/2016	0.34	0.036	< 0.0048 U	0.072	0.056	0.094	< 0.0074 U	< 0.010 U	< 0.0056 U	< 0.0066 U	< 0.0074 U	< 0.013 U	< 0.0098 U	0.015 J	< 0.0078 U	< 0.017 U	0.041 J	< 0.014 U	0.0088 J
101816007 MW303	10/18/2016	0.16	< 0.0057 U	0.0051 J	0.062	0.0076 J	0.017 J	< 0.0073 U	< 0.010 U	< 0.0056 U	< 0.0066 U	< 0.0073 U	< 0.013 U	< 0.0097 U	< 0.010 U	< 0.0077 U	< 0.017 U	< 0.018 U	< 0.013 U	0.028 J
101816008 MW313	10/18/2016	0.4	0.023 J	0.0098 J	0.13	0.0065 J	0.034 J	< 0.0075 U	< 0.010 U	< 0.0057 U	< 0.0067 U	< 0.0075 U	< 0.013 U	< 0.0099 U	0.028 J	0.038 J	< 0.017 U	0.092	0.019 J	0.022 J
101816009 MW05	10/18/2016	0.05	< 0.0056 U	0.0075 J	< 0.0058 U	< 0.0047 U	< 0.010 U	< 0.0072 U	< 0.010 U	< 0.0055 U	< 0.0065 U	< 0.0072 U	< 0.012 U	< 0.0095 U	< 0.010 U	< 0.0076 U	< 0.017 U	< 0.017 U	< 0.013 U	0.0089 J
101816010 MW03R	10/18/2016	0.052	< 0.0058 U	< 0.0049 U	< 0.0060 U	< 0.0049 U	0.016 J	< 0.0075 U	< 0.010 U	< 0.0057 U	< 0.0067 U	< 0.0075 U	< 0.013 U	< 0.0099 U	< 0.011 U	< 0.0079 U	< 0.017 U	< 0.018 U	< 0.014 U	0.011 J
101816011 P303	10/18/2016	0.14	< 0.0057 U	0.0056 J	< 0.0058 U	0.0086 J	0.016 J	< 0.0073 U	< 0.010 U	0.011 J	0.0068 J	0.0075 J	0.018 J	< 0.0096 U	0.013 J	< 0.0077 U	< 0.017 U	< 0.018 U	0.014 J	0.016 J
101816012 MW308	10/18/2016	0.057	< 0.0057 U	0.0059 J	< 0.0059 U	< 0.0048 U	< 0.010 U	< 0.0073 U	< 0.010 U	< 0.0056 U	< 0.0066 U	< 0.0073 U	< 0.013 U	< 0.0097 U	< 0.010 U	< 0.0077 U	< 0.017 U	< 0.018 U	< 0.013 U	< 0.0074 U
101816013 P305	10/18/2016	24.7	4.3	0.047	13	0.46	0.083	< 0.0074 U	< 0.010 U	< 0.0056 U	< 0.0066 U	< 0.0074 U	< 0.013 U	< 0.0098 U	0.52	0.91	< 0.017 U	4.8	0.2	0.41
101816014 MW306	10/18/2016	157	2	2	0.42 J	< 0.091 U	< 0.19 U	< 0.14 U	< 0.19 U	< 0.10 U	< 0.12 U	< 0.14 U	< 0.24 U	< 0.18 U	< 0.19 U	< 0.14 U	< 0.32 U	153	< 0.25 U	0.21 J
101816015 MW306 QA/QC2	10/18/2016	191	2.3	2.2	0.48 J	< 0.098 U	< 0.20 U	< 0.15 U	< 0.21 U	< 0.11 U	< 0.13 U	< 0.15 U	< 0.26 U	< 0.20 U	< 0.21 U	< 0.16 U	< 0.35 U	186	< 0.27 U	0.26 J
101816016 P304	10/18/2016	0.06	< 0.0053 U	< 0.0044 U	< 0.0055 U	< 0.0045 U	0.011 J	< 0.0068 U	< 0.0095 U	< 0.0052 U	< 0.0061 U	< 0.0068 U	< 0.012 U	< 0.0090 U	< 0.0096 U	< 0.0072 U	< 0.016 U	< 0.017 U	< 0.012 U	0.012 J
101816017 MW311	10/18/2016	822	103	26.5	65.9	1.4	4	< 0.076 U	< 0.11 U	< 0.057 U	< 0.068 U	< 0.076 U	0.15 J	< 0.10 U	2.2	18.7	< 0.18 U	578	19.5	2
101816018 MW307R	10/18/2016	3.6	0.39	0.026	1.7	0.085	0.092	< 0.0076 U	< 0.011 U	0.0068 J	< 0.0068 U	< 0.0076 U	0.026 J	< 0.010 U	0.22	0.4	< 0.018 U	0.1	0.3	0.23
101916019 MW310	10/19/2016	6.6	0.3	0.022 J	3.7	0.099	0.09	< 0.0073 U	< 0.010 U	0.021 J	0.0097 J	0.010 J	0.016 J	< 0.0096 U	0.12	0.94	< 0.017 U	1.1	0.041 J	0.11
101916020 MW01R	10/19/2016	0.08	< 0.0059 U	< 0.0049 U	0.016 J	< 0.0050 U	< 0.010 U	< 0.0076 U	< 0.011 U	< 0.0057 U	< 0.0068 U	< 0.0076 U	< 0.013 U	< 0.010 U	< 0.011 U	< 0.0080 U	< 0.018 U	< 0.018 U	< 0.014 U	0.013 J
101916021 Equipment Blank	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
101916022 Trip Blank	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
101916023 BM301	10/18/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

[O:ECK 12/5/16, C:SGW 12/6/16, A: BGH12/8/16]

Notes:

- = Analysis not performed
- < = Concentration is less than reported limit
- J = Estimated concentration at or above the LOD and below the LOQ.
- U = Not detected
- Definitions for additional data qualifiers can be found in associated laboratory and validation reports.
- QA/QC = Quality Control Field Duplicate Sample
- PAH = Polycyclic Aromatic Hydrocarbons
- TPAH = Total PAHs
- ug/L = micrograms per liter

1. Total PAHs were calculated by the laboratory using the following protocol:

- a. The Lab divided the summed internal on-column values by the initial volume to calculate Total PAHs.
- b. The list of 18 PAHs used by the laboratory here are as follows: 1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene and Pyrene.

October 2016 Groundwater Sample Results - Metals, Inorganics & RNA

Wisconsin Public Service Corporation - Marinette Former MGP, Marinette, Wisconsin
 CERCLIS ID -WIN000509952

Sample Location	Sample Date	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Inorganic	Inorganic	Inorganic	Inorganic	Field RNA	Field RNA	Field RNA	Field RNA	Field RNA	Field RNA	
		Aluminum, Dissolved (ug/L)	Antimony, Dissolved (ug/L)	Copper, Dissolved (ug/L)	Iron, Dissolved (ug/L)	Manganese, Dissolved (ug/L)	Nickel, Dissolved (ug/L)	Silver, Dissolved (ug/L)	Vanadium, Dissolved (ug/L)	Zinc, Dissolved (ug/L)	Alkalinity, Total (mg/L)	Methane (ug/L)	Nitrogen, NO2 + NO3, Total (mg/L)	Sulfate, Total (mg/L)	Dissolved Oxygen (mg/L)	Groundwater, depth to (feet)	Oxidation Reduction Potential (millivolts)	pH, Field (Standard Units)	Specific Conductance, Field (mmhos/cm)	Temperature, Water (°C)	Turbidity, Quantitative (NTU)
101816001 MW312	10/18/2016	< 68.7 U	0.29 J	0.34 J	9,970	659	1.1	< 0.016 U	1.2	< 3.1 U	388	7,330	< 0.095 U	< 10.0 U	0.089	2.10	-90.592	6.911	1585.618	16.671	78.721
101816002 MW305	10/18/2016	< 68.7 U	0.10 J	3.6	246 J	0.69 J	1.3	< 0.016 U	0.28 J	7.7 J	298	1.9 J	12.4	159	2.308	14.23	123.814	7.295	2844.394	15.048	16.385
101816003 P302	10/18/2016	< 68.7 U	< 0.073 U	2.2	1,090	487	1.4	< 0.016 U	1.1	4.6 J	265	23.9	< 0.095 U	61.3	0.189	11.97	-34.37	7.255	1323.874	14.132	15.516
101816004 MW302	10/18/2016	< 68.7 U	0.40 J	6.5	21.4 J	1.2	2.6	< 0.016 U	0.42 J	7.7 J	290	< 1.4 U	4.3	60.7	0.403	11.16	73.357	6.88	1717.722	16.182	8.547
101816005 MW304	10/18/2016	< 68.7 U	2.8	1.9	271	1,960	4.3	< 0.016 U	2	4.0 J	324	159	0.096 J	89.8	0.116	5.82	-77.967	7.27	1055.532	16.218	17.066
101816006 MW304 QA/QC1	10/18/2016	< 68.7 U	3	1.6	280	2,040	3.6	< 0.016 U	2.1	< 3.1 U	431	200	0.10 J	90.6	0.116	5.82	-77.967	7.27	1055.532	16.218	17.066
101816007 MW303	10/18/2016	< 68.7 U	0.32 J	1.7	8,850	1,240	3.1	< 0.016 U	1.2	3.2 J	510	671	0.19 J	27.5	0.213	3.57	-109.806	7.121	1927.655	20.445	23.157
101816008 MW313	10/18/2016	< 68.7 U	0.29 J	1.1	11,800	721	7.1	< 0.016 U	3.9	6.6 J	419	3,050	< 0.095 U	22	0.267	3.50	-90.437	6.964	843.272	18.599	23.278
101816009 MW05	10/18/2016	< 68.7 U	< 0.073 U	2.9	28.4 J	1,310	2.5	< 0.016 U	0.20 J	3.3 J	321	< 1.4 U	7.3	210	0.182	6.91	1.984	7.254	2290.873	14.939	32.777
101816010 MW03R	10/18/2016	< 68.7 U	0.77 J	8.7	21.0 J	35.1	3.3	0.032 J	2.3	21.6	263	27.2	3.3	65.2	1.153	4.61	93.091	6.839	766.069	17.521	66.525
101816011 P303	10/18/2016	< 68.7 U	< 0.073 U	1.4	15.1 J	1	1.4	< 0.016 U	0.80 J	< 3.1 U	144	< 1.4 U	0.33	839	7.545	31.14	117.901	7.554	1852.077	16.583	24.792
101816012 MW308	10/18/2016	< 68.7 U	0.19 J	7.1	4,010	2,970	17.9	0.021 J	1	166	503	11.4	0.33	462	0.335	5.82	48.607	6.612	6075.27	18.272	41.164
101816013 P305	10/18/2016	< 68.7 U	< 0.073 U	0.27 J	3,780	701	1.5	< 0.016 U	2.3	6.6 J	424	684	< 0.095 U	5.5 J	0.1	5.87	-47.557	7.066	1997.533	15.962	31.469
101816014 MW306	10/18/2016	< 68.7 U	0.18 J	0.54 J	8,580	444	3	< 0.016 U	2.7	6.0 J	362	2,100	0.59	< 5.0 U	0.193	3.50	-92.506	6.999	824.381	17.252	37.798
101816015 MW306 QA/QC2	10/18/2016	< 68.7 U	0.14 J	4.1	8,280	421	0.58 J	< 0.016 U	2.5	4.9 J	360	2,100	0.66	< 5.0 U	0.193	3.50	-92.506	6.999	824.381	17.252	37.798
101816016 P304 1	10/18/2016	< 68.7 U	0.22 J	1.8	60.6 J	7.2	1.1	< 0.016 U	0.78 J	8.0 J	170	< 1.4 U	1.9	589	--	32.73	--	--	--	--	--
101816017 MW311	10/18/2016	< 68.7 U	< 0.073 U	0.46 J	28,500	1,130	2.4	< 0.016 U	4	22.3	847	9,520	< 0.095 U	< 5.0 U	0.126	4.41	-116.124	6.808	2971.908	18.758	21.317
101816018 MW307R	10/18/2016	< 68.7 U	< 0.073 U	0.29 J	34,700	512	1.5	< 0.016 U	0.30 J	< 3.1 U	407	13,300	< 0.095 U	< 5.0 U	0.111	4.07	-141.377	6.997	1090.822	19.14	18.454
101916019 MW310	10/19/2016	< 68.7 U	0.097 J	0.30 J	29,300	1,480	2	< 0.016 U	5.3	< 3.1 U	368	3,820	< 0.095 U	7.6 J	0.104	5.12	-145.835	7.052	1812.79	16.407	17.56
101916020 MW01R	10/19/2016	< 68.7 U	0.18 J	0.39 J	7,980	887	1.4	< 0.016 U	1	4.3 J	412	12,100	< 0.095 U	< 5.0 U	0.073	3.54	-52.027	6.892	1173.952	13.633	23.131
101916021 Equipment Blank	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
101916022 Trip Blank	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
101916023 BM301	10/18/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.07	--	--	--	--	--

[O:ECK 12/5/16, C:SGW 12/6/16, A:BGH12/8/16]

Notes:

- = Analysis not performed
- < = Concentration is less than reported limit
- J = Estimated concentration at or above the LOD and below the LOQ.
- U = Not detected
- Definitions for additional data qualifiers can be found in associated laboratory and validation reports.
- QA/QC = Quality Control Field Duplicate Sample
- RNA = Remediation by Natural Attenuation (lab and field)
- °C = degrees Celsius
- mg/L = milligrams per liter
- NTU = Nephelometric Turbidity Unit
- ug/L = micrograms per liter
- mmhos/cm = millimhos per centimeter
- 1. Well P304 did not contain enough water to measure RNA parameters

