From: Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>
Sent: Sunday, December 15, 2019 9:07 AM
To: 'Gielniewski, Margaret <gielniewski.margaret@epa.gov> (gielniewski.margaret@epa.gov)'
Cc: Fitzpatrick, William - DNR; Bougie, Cheryl - DNR; 'Hagen, Jennifer'; 'Brian G. Hennings (bhennings@naturalrt.com)'; 'mbyker@naturalrt.com'; 'Rolfes.sarah@epa.gov'; DNR RR NER; Krueger, Sarah E - DNR; adrienne.korpela@jacobs.com
Subject: Former WPS Marinette MGP - Nov., 2019 USEPA Monthly Progress Report
Attachments: 2019-12-13 WPSC-USEPA November 2019 WPSC Marinette Monthly Progress Repo....pdf

Margaret,

Please find attached the monthly progress report for the former WPSC Marinette, WI MGP site.

As always, please feel free to contact me if there are any questions or if additional information may be needed.

Thanks,

Frank Dombrowski
Principal Environmental Consultant
WEC Energy Group - Business Services
Environmental Dept. - Land Quality Group
333 W. Everett St., A231
Milwaukee, WI 53203
Office: (414) 221-2156
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Serving WEC Energy Group, We Energies, Wisconsin Public Service, Michigan Gas Utilities, Minnesota Energy Resources, Peoples Gas and North Shore Gas

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

December 13, 2019

Ms. Margaret Gielniewski
Remedial Project Manager
United States Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, Illinois 60604-3590

RE: November 2019 Monthly Progress Report
Marinette Former Manufactured Gas Plant
Marinette, Wisconsin
Wisconsin Public Service Corporation
CERCLA Docket No V-W-18-C-009, Site Spill ID – B5BT,
CERCLIS ID – WIN000509952

Dear Ms. Gielniewski:

Wisconsin Public Service Corporation (WPSC) is providing this monthly progress report for the WPSC Marinette Former Manufactured Gas Plant (MGP) Site.

1) PROGRESS MADE DURING THE PAST MONTH

- Prepared and submitted October 2019 Monthly Progress Report to United States Environmental Protection Agency (USEPA) by November 15, 2019.
- Continued development of a response to comments letter and Preliminary Design Investigation Work Plan (PDIWP) – Revision 1 based on USEPA comments provided on October 9, 2018.
- Discussed principal threat waste definition concerns with USEPA on November 7, 2019. Based on discussion, submitted a letter to USEPA on November 18, 2019 detailing a revised principal threat waste definition.

2) ANALYTICAL AND OTHER TESTING RESULTS RECEIVED

- Received analytical data packages from the Fall 2019 groundwater sampling event and uploaded into the site database. Analytical data packages and preliminary screening tables are included as an attachment to this monthly progress report.

3) PROJECTED WORK

WPSC Actions

- Submit monthly progress report to USEPA by the 15th of the month.
- Correspondence with USEPA to develop a path forward on a site-specific definition principal threat waste topic to guide the preliminary design investigation.
- Continue development of PDIWP – Revision 1.

USEPA Actions

- Review November 18, 2019 letter and provided approval or comments on revised principal threat waste definition.

4) PROBLEMS OR POTENTIAL PROBLEMS ENCOUNTERED

- None

5) ACTUAL OR PLANNED RESOLUTION OF PROBLEMS OR POTENTIAL PROBLEMS

- None

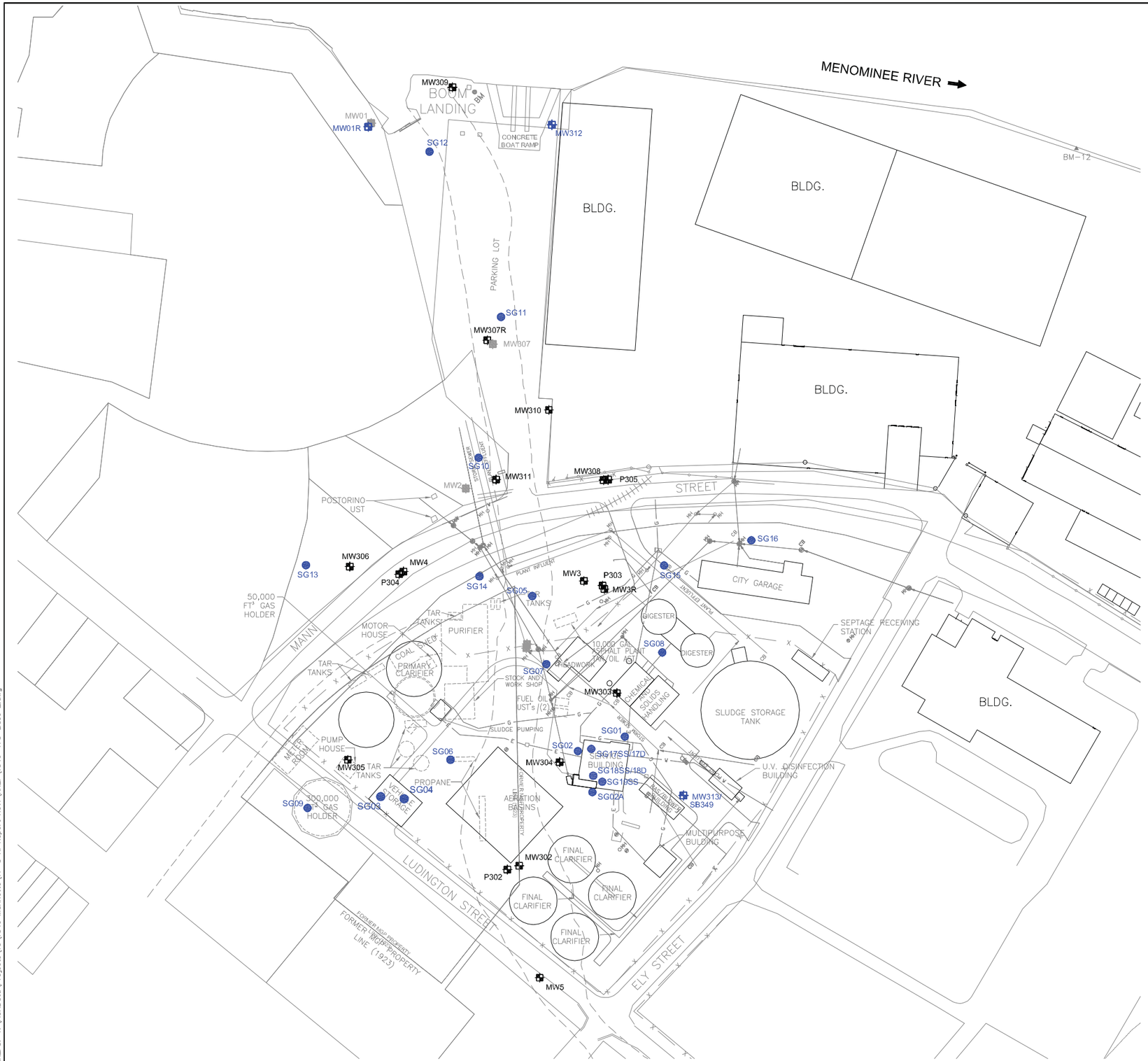
If you have any questions, please don't hesitate to contact me at (414) 221-2156 or via email at frank.dombrowski@wecenergygroup.com.

Sincerely,

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

Enclosures: Figure 1. Site Map
Table 1. Fall 2019 Groundwater Analytical Results Screening Tables

For distribution to: Ms. Sarah Krueger, WDNR (via US Mail and email)
Mr. William Fitzpatrick, WDNR (via US Mail and email)
Ms. Cheryl Bougie, WDNR (via email)
WDNR Northeast Region (via email to DNRRRNER@wisconsin.gov)
Ms. Adrienne Korpela, Jacobs (via email)
Mr. Marcus Byker, Ramboll (via email)



MW312 — MONITORING WELL
P302 — PIEZOMETER
MW2 — ABANDONED MONITORING WELL
P301 — ABANDONED PIEZOMETER
SG02 — SOIL GAS PROBE
G — GAS LINE
W — WATER LINE
E — ELECTRICAL LINE
OEL — OVERHEAD ELECTRIC LINE
SAN — SANITARY SEWER LINE
STM — STORM SEWER LINE
UEL — 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.

N

0 80 160
SCALE IN FEET

SOURCE NOTES:

1. THIS DRAWING WAS DEVELOPED FROM A MAP BY THE CITY OF MARINETTE.
2. 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.
3. PORTIONS OF THIS DRAWING ARE FROM HYDRO-SEARCH DRAWING.
4. 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.
5. WELL LOCATIONS FROM A SURVEY BY WPSC DATED OCTOBER 8, 2003, REVISED OCTOBER 31, 2003.
6. VERTICAL CONTROL IS NAVD88 DATUM
7. 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 3/14/03.
8. 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).
9. POSTORINO USTs WERE IDENTIFIED IN AYERS ASSOCIATES SITE ASSESSMENT AND REMEDIAL ACTION OPTIONS REPORT, CITY OF MARINETTE PROPERTY 500 MANN STREET MARINETTE WISCONSIN 54143 DATED AUGUST 2010.
10. 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.
11. HORIZONTAL DATUM IS MARINETTE COUNTY COORDINATE SYSTEM, UNITS=US FOOT.
12. SOME OFF-SITE UPLAND FEATURES DIGITIZED FROM BING MAPS AERIAL - © 2012 MICROSOFT CORPORATION.
13. BM-SG IS LOCATED ON TOP OF SHEETPILE WALL EAST OF BOAT RAMP.
14. 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:		

MONITORING WELLS AND SOIL VAPOR SAMPLING LOCATIONS

REMEDIAL INVESTIGATION REPORT - REVISION 2
FORMER MARINETTE MGP SITE
WISCONSIN PUBLIC SERVICE CORPORATION
MARINETTE, WISCONSIN

NATURAL RESOURCE TECHNOLOGY

PROJECT NO.
1549/17.5

FIGURE NO.
,

Jan 21, 2015 1:52pm PLOTTED BY: dduda SAVED BY: dduda
X:\ACAData\Projects\15\1549 Marinette\17-5 RI Report Rev2\1549-175-B06.dwg --Layout1
IMAGES:
XREFS: Y:\ACAData\Projects\15\1549 Marinette\17-5 RI Report Rev1\REF\1549-175-Base 2.dwg

Table 1 - Groundwater Analytical Results Compared to the Groundwater Standard and Tap Water Criteria

October 2019 Groundwater Sampling Results
Wisconsin Public Service Corporation - Marinette Former MGP, Marinette, Wisconsin
CERCLIS ID -WIN000509952

9-Digit Code	Sample Location	Sample Date	BTEX Benzene	BTEX Ethylbenzene	BTEX Toluene	BTEX Xylene, o	BTEX Xylenes, m + p	BTEX Xylenes, Total	PAH Anthracene	PAH Benzo(a)pyrene	PAH Benzo(b)fluoranthene	PAH Benzo(g,h,i)perylene	PAH Chrysene	PAH Fluoranthene	PAH Fluorene	PAH Naphthalene	PAH Phenanthrene	PAH 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
			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	Result Flag	Result Flag	Result Flag
WI Groundwater SL:			**5**	**700**	**800**	**NS**	**NS**	**2,000**	**3,000**	**0.2**	**0.2**	**NS**	**0.2**	**400**	**400**	**100**	**3,000**	**250**
WI Groundwater PAL:			0.5	140	160	NS	NS	400	600	0.02	0.02	NS	0.02	80	80	10	NS	50
Tap Water RSL:			*0.46*	*1.5*	*1,100*	*190*	*190*	*190*	*1,800*	*0.025*	*0.25*	*120*	*25*	*800*	*290*	*0.17*	*1,800*	*120*
102219012	MW03R	10/22/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	0.038 J	*0.057*	0.10	0.070	0.097	0.088	<0.0081 U	0.022 J	0.028 J	0.097
102219008/102219009 (N)	MW05	10/22/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.011 U	<0.011 U	<0.0061 U	<0.0072 U	<0.014 U	<0.011 U	<0.0085 U	<0.020 U	<0.015 U	<0.0081 U
102119003	MW302	10/21/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	0.081	***0.32***	***0.30***	0.23	***0.25***	0.25	0.0099 J	0.041 J	0.031 J	0.27
102119005	MW303	10/21/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	0.032 J	<0.011 U	0.039	0.031 J	0.032 J	0.020 J	<0.0084 U	<0.019 U	<0.015 U	0.043
102119002	MW304	10/21/2019	***11.7***	1.3	0.47 J	1.6	0.81 J	2.4 J	0.078	<0.011 U	<0.0060 U	<0.0071 U	<0.014 U	0.021 J	0.073	*2.8*	0.028 J	0.014 J
102119001	MW305	10/21/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	0.024 J	<0.010 U	<0.0056 U	<0.0066 U	<0.013 U	<0.010 U	<0.0077 U	0.025 J	<0.013 U	<0.0074 U
102219014	MW306	10/22/2019	<0.25 U	<0.22 U	<0.17 U	1.2	0.51 J	1.7 J	0.013 J	<0.010 U	<0.0056 U	<0.0066 U	<0.013 U	0.011 J	0.0090 J	*17.7*	0.017 J	0.26
102219016	MW307R	10/22/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	0.15	*0.052* J	0.076	0.046	0.13	0.32	0.41	0.067 J	0.40	0.35
102219011	MW308	10/22/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.010 U	<0.010 U	0.0062 J	<0.0065 U	0.013 J	0.012 J	<0.0077 U	<0.018 U	<0.013 U	0.012 J
102219017/102219018 (N)	MW310	10/27/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	0.021 J	<0.010 U	0.0071 J	<0.0066 U	<0.013 U	0.033 J	0.13	0.021 J	<0.014 U	0.036 J
102219019	MW311	10/22/2019	***101***	*105*	4.1 J	56.8	11.9	68.8	5.9	<0.45 U	<0.24 U	<0.29 U	<0.56 U	2.3	22.5	***508***	20.0	2.2
102119006	MW313	10/21/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	0.032 J	*0.044* J	0.073	0.049	0.088	0.10	0.048	0.023 J	0.021 J	0.10
102119004	P302	10/21/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.011 U	<0.011 U	<0.0060 U	<0.0071 U	<0.014 U	<0.011 U	<0.0084 U	<0.019 U	<0.015 U	<0.0081 U
102219013	P303	10/22/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	0.012 J	<0.010 U	0.0083 J	<0.0067 U	0.019 J	0.012 J	<0.0079 U	<0.018 U	<0.014 U	0.016 J
102219015	P304	10/22/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.011 U	<0.011 U	0.0094 J	0.013 J	0.029 J	0.040 J	<0.0083 U	<0.019 U	0.024 J	0.029 J
102219010	P305	10/22/2019	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	0.043 J	0.014 J	0.029 J	0.017 J	0.045 J	0.40	0.061	<0.020 U	0.055 J	0.39
Total Number of Samples Analyzed:			16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Number of Detections:			2	2	2	3	3	3	12	5	10	7	9	13	8	9	9	13
Min:			11.7	1.3	0.47	1.2	0.51	1.7	0.012	0.014	0.0062	0.013	0.013	0.011	0.009	0.021	0.017	0.012
Max:			101	105	4.1	56.8	11.9	68.8	5.9	0.32	0.3	0.23	0.25	2.3	22.5	508	20	2.2
WI Groundwater SL:			**5**	**700**	**800**	**NS**	**NS**	**2,000**	**3,000**	**0.2**	**0.2**	**NS**	**0.2**	**400**	**400**	**100**	**3,000**	**250**
Number of Samples that Exceed WI Groundwater SL:			2	0	0	0	0	0	0	1	1	0	1	0	0	1	0	0
WI Groundwater PAL:			0.5	140	160	NS	NS	400	600	0.02	0.02	NS	0.02	80	80	10	NS	50
Number of Samples that Exceed WI Groundwater PAL:			2	0	0	0	0	0	0	4	6	0	7	0	0	2	0	0
Tap Water RSL:			*0.46*	*1.5*	*1,100*	*190*	*190*	*190*	*1,800*	*0.025*	*0.25*	*120*	*25*	*800*	*290*	*0.17*	*1,800*	*120*
Number of Samples that Exceed Tap Water RSL:			2	1	0	0	0	0	0	4	1	0	0	0	0	3	0	0

Analyte concentration exceeds the standard for:

Bold	exceeds Groundwater Screening Level, WI
Underlined	exceeds Wisconsin Groundwater PAL
Italic	exceeds Tap Water RSL, WI
Pink Highlighting	exceeds GW SL; results only exceeding the PAL and/or Tap Water criteria are not highlighted.
Yellow Highlighting	analyte exceedance in statistics for one or more samples

PAL from Chapter NR 140 for Groundwater Quality from Wisconsin Admin Code (Feb 2017)

Screening Levels used on this table were presented in the Multi-Site Risk Assessment Framework (RAF) Addendum Revision 6, issued in August 2017. Since that time, five (5) revisions of the RSLs have been published by EPA through November 2019. As a result of these five revisions, there were no updates to the RSLs necessary for the MGP-related constituents evaluated in this table.

Lab comments, additional data qualifiers and definitions can be found in associated laboratory reports.

-- = Analysis not performed
(N) = Normalized sample locations created from combining parent and field duplicate samples following EPA protocol
< = Concentration is less than the Limit of Detection (LOD)
µg/L = micrograms per liter
µS/cm = microsiemens per centimeter (aka micromhos per centimeter)
BTEX = Benzene, Toluene, Ethylbenzene and Xylene
Deg C = degrees Celsius
J = Concentration Estimated
mg/L = milligrams per liter
MGP = Manufactured Gas Plant
NS = No Standard
NTU = Nephelometric Turbidity Unit
PAH = Polycyclic Aromatic Hydrocarbon
PAL = Preventive Action Limit; results that attain or exceed this criteria are considered in exceedance of the PAL
RNA = Remediation by Natural Attenuation (lab and field)
RSL = Regional Screening Level
s.u. = standard units
SL = Screening Level
U = Concentration was not detected above the reported limit

Table 1 - Groundwater Analytical Results Compared to the Groundwater Standard and Tap Water Criteria

October 2019 Groundwater Sampling Results
Wisconsin Public Service Corporation - Marinette Former MGP, Marinette, Wisconsin
CERCLIS ID -WIN000509952

			Metal		Metal		Metal		Metal		Metal		Metal		Inorganic		Inorganic		Organic		RNA		RNA		RNA		RNA		RNA	
9-Digit Code	Sample Location	Sample Date	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		Dissolved oxygen		Groundwater, depth to		Oxidation Reduction Potential		pH, Field		Specific Conductance, Field		Temperature, Water		Turbidity, Quantitative	
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		mg/L		feet		millivolts		s.u.		µS/cm		Deg C		NTUs	
			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	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
WI Groundwater SL:			**200**		**6**		**1,300**		**NS**		**300**		**100**		**50**		**30**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**	
WI Groundwater PAL:			40		1.2		130		150		25		20		10		6		2,500		NS		2,000		125,000		NS		NS		NS		NS		NS		NS		NS		NS	
Tap Water RSL:			*20,000*		*7.8*		*800*		*14,000*		*430*		*390*		*94*		*86*		*6,000*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*	
102219012	MW03R	10/22/2019	<117	U	0.77	J	7.7		<116	U	**383**		2.1		<0.25	U	1.9	J	<20.7	U	221,000		390		18,100		239		0.68		2.63		116.5		6.83		497.2		14.41		43.58	
102219008/102219009 (N)	MW05	10/22/2019	<117	U	<0.30	U	2.4	J	<116	U	**312**		1.1	J	<0.25	U	<0.63	U	<20.7	U	262,000		3,900		70,900		<0.66	U	0.18		5.27		108.7		7.41		1571.1		11.50		0.00	
102119003	MW302	10/21/2019	<117	U	<0.30	U	5.2	J	546		107		4.2		<0.25	U	0.68	J	<20.7	U	295,000		5,400		124,000		<0.66	U	0.36		9.95		283.9		6.80		2007.2		15.09		2.20	
102119005	MW303	10/21/2019	<117	U	0.37	J	<2.2	U	2,240		***5,100***		5.6		<0.25	U	1.1	J	<20.7	U	454,000		<95	U	123,000		149		0.17		1.25		-42.3		7.04		2182.8		15.87		19.63	
102119002	MW304	10/21/2019	<117	U	1.0	J	<2.2	U	987		***1,460***		3.5		<0.25	U	1.3	J	<20.7	U	476,000		<95	U	37,700		1,630		0.21		3.92		-156.7		7.03		1135.3		14.16		1.12	
102119001	MW305	10/21/2019	<117	U	0.34	J	3.1	J	551		<2.4	U	0.94	J	<0.25	U	<0.63	U	<20.7	U	310,000		7,300		157,000		<0.66	U	4.97		12.54		283.4		7.21		2,077		14.21		2.67	
102219014	MW306	10/22/2019	<117	U	<0.30	U	<2.2	U	2,940		130		<0.57	U	<0.25	U	7.5		<20.7	U	257,000		760		4,000		1,640		0.23		1.53		-102.1		7.00		629.1		12.76		0.00	
102219016	MW307R	10/22/2019	<117	U	<0.30	U	<2.2	U	*16,400*		170		<0.57	U	<0.25	U	<0.63	U	<20.7	U	212,000	J	<95	U	<5,000	U	7,090		0.09		2.29		-142.6		7.06		494.3		14.55		9.94	
102219011	MW308	10/22/2019	<117	U	0.36	J	23.0		810		***4,860***		27.0		<0.25	U	<0.63	U	172		865,000		<95	U	299,000		468		0.17		3.79		42.5		6.60		5496.6		14.25		0.00	
102219017/102219018 (N)	MW310	10/27/2019	<117	U	0.40	J	<2.2	U	3,890		***732***		1.4	J	<0.25	U	1.6	J	<20.7	U	410,000		<95	U	64,400		583		0.08		2.29		-76.2		6.75		847.1		14.76		0.00	
102219019	MW311	10/22/2019	<117	U	<0.30	U	<2.2	U	*32,800*		***720***		0.93	J	<0.25	U	2.3		<20.7	U	726,000		<95	U	<5,000	U	9,020		0.12		3.04		-121.6		6.67		2439.3		14.35		0.00	
102119006	MW313	10/21/2019	<117	U	<0.30	U	<2.2	U	13,600		***835***		4.4		<0.25	U	3.5		<20.7	U	397,000		<95	U	24,100		5,130		0.10		2.50		-142.2		6.86		908.9		16.05		47.41	
102119004	P302	10/21/2019	<117	U	<0.30	U	<2.2	U	2,780		***399***		<0.57	U	<0.25	U	1.2	J	<20.7	U	263,000		<95	U	69,100		26.7		0.30		9.83		-15.1		7.04		1374.1		14.65		41.54	
102219013	P303	10/22/2019	<117	U	<0.30	U	<2.2	U	<116	U	3.1	J	0.60	J	<0.25	U	<0.63	U	<20.7	U	148,000	J	<95	U	857,000		<0.66	U	--		34.80		--		--		--		--		--		--	
102219015	P304	10/22/2019	<117	U	<0.30	U	2.2	J	1,270		167		1.8	J	<0.25	U	0.74	J	<20.7	U	--		1,600		--		<0.66	U	--		34.37		--		--		--		--		--	
102219010	P305	10/22/2019	<117	U	<0.30	U	<2.2	U	771		***770***		1.7	J	<0.25	U	1.2	J	25.9	J	328,000		<95	U	27,000		22.0		0.26		3.40		41.0		6.89		3134.1		12.80		0.00	
Total Number of Samples Analyzed:			16		16		16		16		16		16		16		16		16		15		16		15		16		14		16		14		14		14		14		14	
Number of Detections:			0		6		6		13		15		13		0		11		2		15		6		13		11		14		16		14		14		14		14		14	
Min:			0		0.34		2.2		546		3.1		0.6		0		0.68		25.9		148,000		390		4,000		22		0.08		1.25		-156.7		6.6		494.3		11.5		0	
Max:			0		1		23		32,800		5,100		27		0		7.5		172		865,000		7,300		857,000		9,020		4.97		34.8		283.9		7.41		5,497		16.05		47.41	
WI Groundwater SL:			**200**		**6**		**1,300**		**NS**		**300**		**100**		**50**		**30**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**		**NS**	
Number of Samples that Exceed WI Groundwater SL:			0		0		0		0		10		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0	
WI Groundwater PAL:			40		1.2		130		150		25		20		10		6		2,500		NS		2,000		125,000		NS		NS		NS		NS		NS		NS		NS		NS	
Number of Samples that Exceed WI Groundwater PAL:			0		0		0		13		14		1		0		1		0		0		3		3		0		0		0		0		0		0		0		0	
Tap Water RSL:			*20,000*		*7.8*		*800*		*14,000*		*430*		*390*		*94*		*86*		*6,000*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*		*NS*	
Number of Samples that Exceed Tap Water RSL:			0		0		0		2		7		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0	

[O:CMD 12/6/19,C:MGP 12/9/19 QA: DJB 12/12/19]

Analyte concentration exceeds the standard for:

Bold	exceeds Groundwater Screening Level, WI
Underlined	exceeds Wisconsin Groundwater PAL
Italic	exceeds Tap Water RSL, WI
Pink Highlighting	exceeds GW SL; results only exceeding the PAL and/or Tap Water criteria are not highlighted.
Yellow Highlighting	analyte exceedance in statistics for one or more samples

PAL from Chapter NR 140 for Groundwater Quality from Wisconsin Admin Code (Feb 2017)

Screening Levels used on this table were presented in the Multi-Site Risk Assessment Framework (RAF) Addendum Revision 6, issued in August 2017. Since that time, five (5) revisions of the RSLs have been published by EPA through November 2019. As a result of these five revisions, there were no updates to the RSLs necessary for the MGP-related constituents evaluated in this table.

Lab comments, additional data qualifiers and definitions can be found in associated laboratory reports.

-- = Analysis not performed
(N) = Normalized sample locations created from combining parent and field duplicate samples following EPA protocol
< = Concentration is less than the Limit of Detection (LOD)
µg/L = micrograms per liter
µS/cm = microsiemens per centimeter (aka micromhos per centimeter)
BTEX = Benzene, Toluene, Ethylbenzene and Xylene
Deg C = degrees Celsius
J = Concentration Estimated
mg/L = milligrams per liter
MGP = Manufactured Gas Plant
NS = No Standard
NTU = Nephelometric Turbidity Unit
PAH = Polycyclic Aromatic Hydrocarbon
PAL = Preventive Action Limit; results that attain or exceed this criteria are considered in exceedance of the PAL
RNA = Remediation by Natural Attenuation (lab and field)
RSL = Regional Screening Level
s.u. = standard units
SL = Screening Level
U = Concentration was not detected above the reported limit