



Wisconsin Public Service Corporation

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

www.wisconsinpublicservice.com

January 12, 2018

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

**SUBJECT: December, 2017 Monthly Progress Report – Former Green Bay MGP
 Wisconsin Public Service Corporation
 CERCLA Docket No. V-W-06-C-847
 Spill Site ID – B5BV**

Dear Ms. Gielniewski:

Please find enclosed the monthly progress report for the Wisconsin Public Service Corporation's former manufactured gas plant site in Green Bay, WI. If you have any questions, please contact me at your convenience at (414) 221-2156 or frank.dombrowski@we-energies.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Frank Dombrowski', is written over a light blue horizontal line.

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

Enclosure

cc: Mr. William Fitzpatrick, WDNR (hardcopy and email)
 Ms. Cheryl Bougie, WDNR (hardcopy and email)
 Ms. Jennifer Knoepfle, CH2M (hardcopy and email)
 Ms. Kristin DuFresne, WDNR (hardcopy and email)



OBG | There's a way

January 15, 2018

Mr. Frank Dombrowski
Principal Environmental Consultant
WEC Business Services, LLC
333 W. Everett Street, A231
Milwaukee, WI 53203
(via email)

RE: December 2017 Monthly Progress Report
Green Bay Former Manufactured Gas Plant (MGP), Green Bay, Wisconsin
Wisconsin Public Service Corporation (WPSC)
CERCLA Docket No. V-W-06-C-847, Site Spill ID – B5BV, CERCLIS ID – WIN000509948
OBG Project No. 67983

Dear Mr. Dombrowski:

O'Brien & Gere Engineers, Inc. (OBG), is providing this Monthly Progress Report for the WPSC Green Bay Former Manufactured Gas Plant (MGP).

1) PROGRESS MADE DURING THE PAST MONTH

- Prepared and submitted November 2017 Monthly Progress Report to United States Environmental Protection Agency (USEPA) by December 15, 2017.
- Continued participation in Lower Fox River Group sediment delineation activities near the former MGP site.

2) ANALYTICAL AND OTHER TESTING RESULTS RECEIVED

- November 2017 routine semi-annual groundwater results and a site map have been attached to this report.
- November 2017 Non-Aqueous Phase Liquid (NAPL) mobility sample results will be provided following receipt of the laboratory data.

3) PROJECTED WORK

WPSC Actions

- Submit the monthly progress report to USEPA by the 15th of the month.
- Prepare for sediment meeting with USEPA January 16, 2018.
- Prepare for remedial investigation (RI) data summary discussion and completion of RI report pending USEPA approval to proceed.

USEPA Actions

- Prepare for sediment meeting with WPSC January 16, 2018.
- Prepare for remedial investigation (RI) data summary discussion and completion of RI report.



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Milwaukee, WI 53204



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4) ANTICIPATED SCHEDULE

Deliverable or Milestone	Target Date	Actual Date
Submitted Completion Report – Revision 0	June 17, 2014	June 17, 2014
Submitted Focused Sediment Investigation Tech Memo No 1 – Revision 0		June 18, 2014
Receive USEPA comments on Completion Report – Revision 0		July 14, 2014
Receive USEPA comments on Sediment Tech Memo No 1 – Revision 0		July 21, 2014
Submit response to comments with Sediment Tech Memo No1 – Revision 1		August 1, 2014
Complete sediment sampling described in Tech Memo No1 – Revision 1	August 2014	August 29, 2014
Receive USEPA comments on Completion Report – Revision 0		July 21, 2014
Pre-scoping meeting for Site-Specific Work Plan (SSWP)	August 19, 2014	August 19, 2014
Submit SSWP – Revision 0 to USEPA	September 2014	September 23, 2014
Receive USEPA comments on SSWP Revision 0	November 2014	November 5, 2014
Respond to USEPA comments on SSWP Revision 0 and issue Revision 1 of the RI Report	December 2014	December 22, 2014
Submit Sediment Sampling Technical Memorandum	December 2014	February 6, 2015
Participate in Lower Fox River stakeholder meeting	January 7, 2015	January 7, 2015
Receive USEPA comments on SSWP Revision 1	February 2015	January 26, 2015
Respond to USEPA comments on SSWP Revision 1	March 12, 2015	March 12, 2015
Receive USEPA comments on Focused Sediment Investigation Report		March 20, 2015
Receive USEPA approval of SSWP Revision 2		March 20, 2015
Respond to USEPA comments and submit Focused Sediment Report Revision 1	May 4, 2015	May 4, 2015
Receive USEPA comments on Focused Sediment Report Revision 1		May 21, 2015
Respond to USEPA comments on Focused Sediment Report Revision 1 with report Revision 2	July 5, 2015	June 29, 2015
Execute upland SSWP Revision 2 field activities	June 2015, pending site access	October 21, 2015
Receive USEPA comments on Focused Sediment Report Revision 2		July 31, 2015
Submit response to USEPA comments on Focused Sediment Report Revision 2	September 14, 2015	September 14, 2015
Receive USEPA response to comments regarding additional upland soil borings along shoreline		September 29, 2015
Submit SSWP Revision 2 modified October 2015	October 9, 2015	October 9, 2015



Deliverable or Milestone	Target Date	Actual Date
Quarterly RI groundwater (GW) monitoring	November 2015, February, May, and August 2016	November 11, 2015, Feb. 16, 2016 May 8, 2016, August 23, 2016
RI soil vapor sampling (SWWP Revision 2)	February 2016 and July 2016	February 3, 2016
Collection of additional soil samples to complete stepout boring process initiated during SSWP Revision 2 field activities	February 8, 2016	February 8, 2016
Submittal of Technical Memorandum regarding VI evaluation of Annex Building	May 2016	May 31, 2016
USEPA provided comments to VI Technical Memorandum		July 6, 2016
Submittal of VI Technical Memorandum (revision 1) incorporating USEPA comments		July 15, 2016
USEPA issued approval of VI Technical Memorandum (Revision 1)		July 28, 2016
Installation of vapor probes and sub-slab monitoring ports in Annex Building		July 30, 2016 (Saturday)
Second round of RI soil vapor probe monitoring (SWWP Revision 2)		August 5, 2016
Sample first round of air and soil vapor sampling in Annex Building		August 6, 2016 (Saturday)
Re-sampling of Annex Bldg indoor air monitoring locations		September 22, 2016
Resampling results received		October 7, 2016
Third-party validation report received		November 2, 2016
Planned sample second/last round of air and soil vapor sampling in Annex Building	December 2016	December 4, 2016
December 2016 GW sampling event	December 13, 2016	December 13, 2016
Submitted Preliminary RI Data to USEPA for review		February 10, 2017
Meeting to discuss preliminary RI data with USEPA	February, 2017	Pending discussion with USEPA
Semi-annual routine GW monitoring	May and November 2017	May 9, 2017; November 21, 2017
Lower Fox River sediment sampling		March 30, 2017
Sediment NAPL mobility sample collection	November 2017	November 18, 2017
Meeting to discuss sediment	January 16, 2018	

5) PROBLEMS OR POTENTIAL PROBLEMS ENCOUNTERED

- None

6) ACTUAL OR PLANNED RESOLUTION OF PROBLEMS OR POTENTIAL PROBLEMS

- None



Please contact the undersigned if you should have any questions regarding the content of this progress report.

Very truly yours,
O'BRIEN & GERE ENGINEERS, INC.



Brian G. Hennings, PG
Managing Hydrogeologist



Jennifer M. Hagen, PE
Senior Managing Engineer

Enclosures: Site Map
 November 2017 Groundwater Results Summary Tables

For distribution to: Ms. Margaret Gielniewski, USEPA (via email)
 Ms. Kristin DuFresne, WDNR (via US Mail and email)
 Mr. William Fitzpatrick, WDNR (via US Mail and email)
 Ms. Cheryl Bougie, WDNR (via US Mail and email)
 Ms. Jennifer Knoepfle, CH2M (via email)





Tables

Table 1. November 2017 Groundwater Sample Results

Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-Digit Code	Sample Location	Sample Date	PAH 1-Methylnaphthalene	PAH 2-Methylnaphthalene	PAH Acenaphthene	PAH Acenaphthylene	PAH Anthracene	PAH Benzo(a)anthracene	PAH Benzo(a)pyrene	PAH Benzo(b)fluoranthene	PAH Benzo(g,h,i)perylene	PAH Benzo(k)fluoranthene	PAH Chrysene	PAH Dibenz(a,h)anthracene	PAH Fluoranthene	PAH Fluorene	PAH Indeno(1,2,3-cd)pyrene	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	µg/L	µg/L
MGP Groundwater Standard, WI:			NS	NS	NS	NS	3,000	NS	0.2	0.2	NS	NS	0.2	NS	400	400	NS	100	3,000	250
Wisconsin Groundwater PAL:			NS	NS	NS	NS	600	NS	0.02	0.02	NS	NS	0.02	NS	80	80	NS	10	NS	50
MGP Tapwater RSL, WI:			1.1	36	530	530	1,800	0.03	0.025	0.25	120	2.5	25	0.025	800	290	0.25	0.17	1,800	120
112117028	MW-401AR	11/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
112117011	MW-401BR	11/21/2017	<0.0063 U	<0.0053 U	<0.0065 U	<0.0054 U	<0.011 U	<0.0081 U	<0.011 U	0.0071 J	<0.0073 U	<0.0081 U	<0.014 U	<0.011 U	0.016 J	<0.0086 U	<0.019 U	<0.020 U	<0.015 U	0.018 J
112117010	MW-402R	11/21/2017	186	26.9	29.4	3.4	1.2 J	<0.79 U	<1.1 U	<0.60 U	<0.71 U	<0.79 U	<1.4 U	<1.1 U	2.0 J	25.1	<1.9 U	588	14.2	2.5 J
112117025	MW-403R	11/21/2017	26.5	10	6.6	1.3	0.58 J	<0.30 U	<0.42 U	<0.23 U	<0.27 U	<0.30 U	<0.52 U	<0.40 U	0.47 J	3.3	<0.71 U	309	2.5 J	0.66 J
112117023/112117024 (N)	MW-404	11/21/2017	197	<0.10 U	11.7	11.3	0.88 J	<0.16 U	<0.22 U	<0.12 U	<0.14 U	<0.16 U	<0.28 U	<0.21 U	0.92 J	3.4	<0.38 U	6.7	8.0	0.84
112117029	MW-405A	11/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
112117022	MW-405B	11/21/2017	0.014 J	<0.0049 U	0.028 J	0.023 J	0.12	0.28	0.72	1.2	0.79	0.58	1.1	0.10	2.8	0.097	0.66	<0.018 U	1.3	1.9
112117021	MW-406	11/21/2017	0.024 J	<0.0051 U	0.051	0.067	0.035 J	0.041	0.13	0.23	0.15	0.12	0.31	0.017 J	0.96	0.0091 J	0.13	0.021 J	0.10	0.67
112017003	MW-407	11/20/2017	<0.0065 U	<0.0054 U	<0.0067 U	<0.0055 U	<0.011 U	<0.0083 U	<0.012 U	<0.0063 U	<0.0075 U	<0.0083 U	<0.014 U	<0.011 U	<0.012 U	<0.0088 U	<0.019 U	<0.020 U	<0.015 U	0.010 J
112117020	MW-408	11/21/2017	0.025 J	0.0095 J	0.037	0.019 J	0.16	0.39	0.80	1.4	0.93	0.64	1.4	0.13	4.0	0.18	0.74	<0.018 U	1.0	2.4
112117019	MW-409A	11/21/2017	0.036	<0.0051 U	<0.0063 U	0.013 J	0.048 J	<0.0078 U	0.020 J	0.058	0.039	0.034 J	0.077	<0.010 U	0.16	0.012 J	0.031 J	<0.019 U	0.030 J	0.12
112117018	MW-409B	11/21/2017	<0.0060 U	<0.0049 U	<0.0061 U	<0.0050 U	<0.011 U	0.015 J	0.054	0.17	0.14	0.066	0.17	0.011 J	0.30	<0.0081 U	0.097	<0.019 U	0.067 J	0.23
112117017	MW-410R	11/21/2017	0.023 J	0.012 J	0.014 J	0.012 J	0.083	0.0080 J	<0.011 U	0.012 J	0.011 J	0.0084 J	<0.014 U	<0.011 U	0.026 J	<0.0084 U	<0.019 U	<0.019 U	<0.015 U	0.027 J
112017008	MW-411AR	11/20/2017	4.1	0.60	1.0	0.61	0.20	0.011 J	<0.011 U	0.014 J	0.014 J	0.0086 J	0.020 J	<0.010 U	0.16	0.64	<0.018 U	6.2	1.0	0.20
112017007	MW-411B	11/20/2017	0.024 J	0.038	<0.0065 U	<0.0054 U	<0.011 U	<0.0081 U	<0.011 U	0.032	0.032 J	0.020 J	0.031 J	<0.011 U	0.059	<0.0086 U	0.025 J	0.046 J	0.016 J	0.054
112017004/112017005 (N)	MW-412	11/20/2017	<0.0062 U	0.012 J	<0.0064 U	<0.0052 U	<0.011 U	<0.0079 U	<0.011 U	<0.0060 U	0.032 J	<0.0079 U	<0.014 U	<0.011 U	<0.011 U	<0.0084 U	<0.019 U	<0.019 U	<0.015 U	<0.0081 U
112017006	MW-413	11/20/2017	0.023 J	0.046	0.018 J	<0.0054 U	<0.011 U	<0.0081 U	<0.011 U	<0.0062 U	<0.0073 U	<0.0081 U	<0.014 U	<0.011 U	<0.011 U	<0.0086 U	<0.019 U	0.046 J	<0.015 U	0.010 J
112117012	MW-414	11/21/2017	<0.0062 U	<0.0052 U	<0.0064 U	<0.0052 U	<0.011 U	<0.0079 U	<0.011 U	<0.0060 U	<0.0071 U	<0.0079 U	<0.014 U	<0.011 U	<0.011 U	<0.0084 U	<0.019 U	<0.019 U	<0.015 U	<0.0081 U
112117013/112117014 (N)	MW-415A	11/21/2017	<0.0060 U	<0.0049 U	<0.0061 U	<0.0050 U	<0.011 U	0.0079 J	0.045 J	0.088	0.056	0.056	0.11	<0.010 U	0.17	<0.0081 U	0.054 J	<0.019 U	0.038 J	0.13
112117015	MW-415B	11/21/2017	<0.0061 U	<0.0051 U	<0.0063 U	<0.0051 U	<0.011 U	<0.0078 U	<0.011 U	0.0068 J	<0.0070 U	<0.0078 U	<0.013 U	<0.010 U	0.013 J	<0.0082 U	<0.018 U	<0.019 U	<0.014 U	0.013 J
112117016	MW-416	11/21/2017	<0.0060 U	<0.0050 U	<0.0062 U	<0.0051 U	<0.011 U	<0.0077 U	<0.011 U	<0.0059 U	<0.0069 U	<0.0077 U	<0.013 U	<0.010 U	<0.011 U	<0.0081 U	<0.018 U	<0.019 U	<0.014 U	<0.0078 U
112017002	MW-417	11/20/2017	<0.0063 U	<0.0053 U	<0.0065 U	<0.0054 U	<0.011 U	<0.0081 U	<0.011 U	<0.0062 U	<0.0073 U	<0.0081 U	<0.014 U	<0.011 U	<0.011 U	<0.0086 U	<0.019 U	<0.020 U	<0.015 U	<0.0082 U
112017001	MW-418	11/20/2017	<0.0061 U	<0.0051 U	0.0076 J	<0.0051 U	<0.011 U	<0.0078 U	<0.011 U	0.0060 J	<0.0070 U	<0.0078 U	<0.013 U	<0.010 U	<0.011 U	<0.0082 U	<0.018 U	<0.019 U	<0.014 U	0.011 J
112117030	SG01	11/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
112017009	Equipment Blank	11/20/2017	0.0064 J	0.0090 J	<0.0065 U	<0.0054 U	<0.011 U	<0.0081 U	<0.011 U	<0.0062 U	<0.0073 U	<0.0081 U	<0.014 U	<0.011 U	<0.011 U	<0.0086 U	<0.019 U	<0.020 U	0.029 J	0.017 J
112117026	Equipment Blank	11/21/2017	0.0062 J	0.0082 J	<0.0061 U	<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	0.022 J	<0.014 U	<0.0076 U
112117027	Trip Bank	11/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total Number of Samples Analyzed:	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Number of Detections:	11	8	10	9	9	7	6	12	10	9	8	4	14	8	7	7	7	11	17	
Min:	0.014	0.0095	0.0076	0.012	0.035	0.0079	0.02	0.006	0.011	0.0084	0.02	0.011	0.013	0.0091	0.025	0.021	0.016	0.01		
Max:	197	26.9	29.4	11.3	1.2	0.39	0.8	1.4	0.93	0.64	1.4	0.13	4	25.1	0.74	588	14.2	2.5		
MGP Groundwater Standard SL:	NS	NS	NS	NS	3,000	NS	0.2	0.2	NS	NS	0.2	NS	400	400	NS	100	3,000	250		
Number of Samples that Exceed MGP Groundwater Standard SL:	0	0	0	0	0	0	2	3	0	0	3	0	0	0	0	2	0	0		
WI Groundwater PAL:	NS	NS	NS	NS	600	NS	0.02	0.02	NS	NS	0.02	NS	80	80	NS	10	NS	50		
Number of Samples that Meet or Exceed WI PAL:	0	0	0	0	0	0	6	7	0	0	8	0	0	0	0	2	0	0		
MGP Tap Water RSL:	1.1	36	530	530	1,800	0.03	0.025	0.25	120	2.5	25	0.025	800	290	0.25	0.17	1,800	120		
Number of Samples that Exceed Tap Water SL:	4	0	0	0	0	3	5	2	0	0	0	2	0	0	2	4	0	0		



Table 1. November 2017 Groundwater Sample Results

Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Gree
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-Digit Code	Sample Location	Sample Date	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	VOC	VOC	VOC	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	
			Benzene	Ethylbenzene	Toluene	Xylene, o	Xylenes, m + p	Xylenes, Total	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Trimethylbenzenes, Total	Arsenic, Dissolved	Barium, Dissolved	Cadmium, Dissolved	Chromium, Dissolved	Iron, Dissolved	Lead, Dissolved	Manganese, Dissolved	Mercury, Dissolved	Selenium, Dissolved	Silver, Dissolved
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	
MGP Groundwater Standard, WI:			5	700	800	NS	NS	2,000	NS	NS	480	10	2,000	5	100	NS	15	300	2	50	50
Wisconsin Groundwater PAL:			0.5	140	160	NS	NS	400	NS	NS	96	1	400	0.5	10	150	1.5	25	0.2	10	10
MGP Tapwater RSL, WI:			0.46	1.5	1,100	190	190	190	56	60	NS	0.052	3,800	9.2	22,000	14,000	15	430	5.7	100	94
112117028	MW-401AR	11/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
112117011	MW-401BR	11/21/2017	<0.50 U	<0.50 U	0.81 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<1.4 U	25.3	<0.40 U	<5.1 U	<553 U	<0.98 U	<13.5 U	<0.13 U	<1.6 U	<0.50 U
112117010	MW-402R	11/21/2017	1.090	148	64.6	77.7	93.5	171	62.3	<5.0 U	62.3	2.3 J	924	<0.40 U	<5.1 U	5.980	<0.98 U	438	<0.50 U	<1.6 U	<0.50 U
112117025	MW-403R	11/21/2017	1.070	64.0	25.5	50.9	50.1	101	18.5	<5.0 U	18.5	<2.8 U	232	<0.81 U	<10.2 U	<1,110 U	<2.0 U	106	<0.50 U	<3.2 U	<1.0 U
112117023/112117024 (N)	MW-404	11/21/2017	22.5	225	3.9	20.4	3.4	23.9	7.0	1.5	8.5	<2.8 U	159	<0.81 U	<10.2 U	3.990	<2.0 U	450	<0.50 U	<3.2 U	<1.0 U
112117029	MW-405A	11/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
112117022	MW-405B	11/21/2017	0.92 J	<0.50 U	0.70 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<2.8 U	79.4	<0.81 U	<10.2 U	<1,110 U	<2.0 U	229	<0.50 U	<3.2 U	<1.0 U
112117021	MW-406	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	2.9 J	135	<0.81 U	<10.2 U	2.440 J	<2.0 U	623	<0.50 U	<3.2 U	<1.0 U
112017003	MW-407	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	3.7 J	344	<0.40 U	<5.1 U	12.000	<0.98 U	488	<0.50 U	<1.6 U	<0.50 U
112117020	MW-408	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<2.8 U	509	<0.81 U	<10.2 U	48.800	<2.0 U	4,270	<0.50 U	<3.2 U	<1.0 U
112117019	MW-409A	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<5.6 U	394	<1.6 U	<20.4 U	7.840	<3.9 U	923	<0.50 U	<6.3 U	<2.0 U
112117018	MW-409B	11/21/2017	<0.50 U	<0.50 U	0.62 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<1.4 U	24.3	<0.40 U	<5.1 U	<553 U	<0.98 U	<13.5 U	<0.50 U	<1.6 U	<0.50 U
112117017	MW-410R	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<2.8 U	388	<0.81 U	<10.2 U	2.620 J	<2.0 U	549	<0.50 U	<3.2 U	<1.0 U
112017008	MW-411AR	11/20/2017	933	46.0	<5.0 U	<5.0 U	<10.0 U	<15.0 U	<5.0 U	<5.0 U	<10	4.7 J	181	<0.81 U	<10.2 U	2.040 J	<2.0 U	168	<0.50 U	<3.2 U	<1.0 U
112017007	MW-411B	11/20/2017	<0.50 U	<0.50 U	0.75 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<1.4 U	38.1	<0.40 U	<5.1 U	<553 U	<0.98 U	<13.5 U	<0.13 U	<1.6 U	<0.50 U
112017004/112017005 (N)	MW-412	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	3.4	425	<0.16 U	<2.0 U	45.900	<0.39 U	1,410	<0.50 U	<0.63 U	<0.20 U
112017006	MW-413	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	0.42 J	194	<0.081 U	<1.0 U	16.600	<0.20 U	386	<0.13 U	<0.32 U	<0.10 U
112117012	MW-414	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<2.8 U	272	<0.81 U	<10.2 U	<1,110 U	<2.0 U	627	<0.50 U	<3.2 U	<1.0 U
112117013/112117014 (N)	MW-415A	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.56 U	107	<0.16 U	<2.0 U	<221 U	<0.39 U	11.8 J	<0.50 U	<0.63 U	<0.20 U
112117015	MW-415B	11/21/2017	<0.50 U	<0.50 U	0.88 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<1.4 U	22.3	<0.40 U	<5.1 U	<553 U	<0.98 U	<13.5 U	<0.13 U	<1.6 U	<0.50 U
112117016	MW-416	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<5.6 U	326	<1.6 U	<20.4 U	<2,210 U	<3.9 U	3,370	<0.50 U	<6.3 U	<2.0 U
112017002	MW-417	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<2.8 U	678	<0.81 U	<10.2 U	12.000	<2.0 U	916	<0.50 U	<3.2 U	<1.0 U
112017001	MW-418	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<1.4 U	396	0.50 J	<5.1 U	<553 U	<0.98 U	556	<0.50 U	<1.6 U	<0.50 U
112117030	SG01	11/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
112017009	Equipment Blank	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.28 U	<0.34 U	<0.081 U	<1.0 U	<111 U	<0.20 U	<2.7 U	<0.13 U	<0.32 U	<0.10 U
112117026	Equipment Blank	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.28 U	0.36 J	<0.081 U	<1.0 U	<111 U	<0.20 U	<2.7 U	<0.13 U	<0.32 U	<0.10 U
112117027	Trip Bank	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	--	--	--	--	--	--	--	--	--	--

Total Number of Samples Analyzed:	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Number of Detections:	5	4	8	3	3	3	3	1	3	6	21	1	0	11	0	17	0	0	0	0	0
Min:	0.92	46	0.62	20.4	3.4	23.9	7	1.5	8.5	0.42	22.3	0.5	0	2,040	0	11.8	0	0	0	0	0
Max:	1,090	225	64.6	77.7	93.5	171	62.3	1.5	62.3	4.7	924	0.5	0	48,800	0	4,270	0	0	0	0	0
MGP Groundwater Standard SL:	5	700	800	NS	NS	2,000	NS	NS	480	10	2,000	5	100	NS	15	300	2	50	50	50	50
Number of Samples that Exceed MGP Groundwater Standard SL:	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0
WI Groundwater PAL:	0.5	140	160	NS	NS	400	NS	NS	96	1	400	0.5	10	150	1.5	25	0.2	10	10	10	10
Number of Samples that Meet or Exceed WI PAL:	5	2	0	0	0	0	0	0	0	5	4	1	0	11	0	16	0	0	0	0	0
MGP Tap Water RSL:	0.46	1.5	1,100	190	190	190	56	60	NS	0.052	3,800	9.2	22,000	14,000	15	430	5.7	100	94	94	94
Number of Samples that Exceed Tap Water SL:	5	4	0	0	0	0	1	0	0	6	0	0	0	3	0	12	0	0	0	0	0



Table 1. November 2017 Groundwater Sample Results

Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Gree
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-Digit Code	Sample Location	Sample Date	Inorganic	Inorganic	RNA	RNA	RNA	RNA	RNA	RNA	RNA
			Nitrogen, NO ₂ + NO ₃ , Total	Sulfate, Total	Dissolved oxygen	Groundwater, depth to	Oxidation Reduction Potential	pH, Field	Specific Conductance, Field	Temperature, Water	Turbidity, Quantitative
Reporting Units:			µg/L	µg/L	mg/L	feet	millivolts	s.u.	µS/cm	Deg C	NTUs
MGP Groundwater Standard, WI:			NS	NS	NS	NS	NS	NS	NS	NS	NS
<u>Wisconsin Groundwater PAL:</u>			<u>2,000</u>	<u>125,000</u>	NS	NS	NS	NS	NS	NS	NS
<i>MGP Tapwater RSL, WI:</i>			NS	NS	NS	NS	NS	NS	NS	NS	NS
112117028	MW-401AR	11/21/2017	--	--	--	3.60	--	--	--	--	--
112117011	MW-401BR	11/21/2017	180 J	<u>1,380,000</u>	0.65	9.38	41.8	7.33	2950.5	11.48	4.87
112117010	MW-402R	11/21/2017	<95 U	29,100	0.14	3.82	-86.3	6.84	13,229	13.17	9.30
112117025	MW-403R	11/21/2017	<95 U	<u>1,200,000</u>	0.19	3.71	-187.9	7.81	19,647	14.40	0.93
112117023/112117024 (N)	MW-404	11/21/2017	<95 U	<u>220,000 J</u>	--	--	--	--	--	--	--
112117029	MW-405A	11/21/2017	--	--	--	2.50	--	--	--	--	--
112117022	MW-405B	11/21/2017	770	<u>164,000 J</u>	0.27	4.70	18.6	7.09	11,791	13.04	2.57
112117021	MW-406	11/21/2017	<95 U	<u>161,000 J</u>	0.27	3.68	-80.9	7.15	7770.9	11.27	0.94
112017003	MW-407	11/20/2017	<95 U	<100,000 U	0.13	4.35	-120.6	7.35	5999.8	13.47	7.03
112117020	MW-408	11/21/2017	<95 U	<u>163,000 J</u>	0.20	2.76	-64.0	6.45	10,700	13.85	14.19
112117019	MW-409A	11/21/2017	<95 U	<u>802,000</u>	0.15	3.16	-84.3	6.81	25,821	13.61	1.86
112117018	MW-409B	11/21/2017	140 J	<u>541,000</u>	1.46	7.86	10.0	7.34	2538.8	13.26	13.35
112117017	MW-410R	11/21/2017	<95 U	118,000 J	0.19	3.94	-113.3	6.64	11,149	14.10	33.54
112017008	MW-411AR	11/20/2017	130 J	<u>369,000</u>	0.23	3.83	-157.5	8.04	16,866	13.77	1.80
112017007	MW-411B	11/20/2017	190 J	<u>605,000</u>	1.49	8.21	46.3	7.56	3,348	13.46	11.08
112017004/112017005 (N)	MW-412	11/20/2017	<95 U	<100,000 U	--	--	--	--	--	--	--
112017006	MW-413	11/20/2017	<95 U	<100,000 U	0.17	5.07	-32.2	6.66	1390.8	11.86	2.40
112117012	MW-414	11/21/2017	500	<100,000 U	0.57	5.17	63.7	6.90	7,141	10.66	2.41
112117013/112117014 (N)	MW-415A	11/21/2017	<95 U	<u>274,000 J</u>	--	--	--	--	--	--	--
112117015	MW-415B	11/21/2017	200 J	<u>1,780,000</u>	3.22	6.46	126.1	7.23	2672.9	11.61	0.50
112117016	MW-416	11/21/2017	<95 U	<u>385,000</u>	0.17	3.82	46.6	6.42	26,372	13.78	1.17
112017002	MW-417	11/20/2017	<95 U	<100,000 U	0.13	5.36	-78.4	7.07	1091.3	14.32	22.13
112017001	MW-418	11/20/2017	<u>2,100</u>	<100,000 U	0.36	6.44	170.8	6.93	6049.6	14.87	0.53
112117030	SG01	11/21/2017	--	--	--	4.96	--	--	--	--	--
112017009	Equipment Blank	11/20/2017	<95 U	<100,000 U	--	--	--	--	--	--	--
112117026	Equipment Blank	11/21/2017	<95 U	<100,000 U	--	--	--	--	--	--	--
112117027	Trip Bank	11/21/2017	--	--	--	--	--	--	--	--	--

Notes

BOLD = result exceeds MGP Groundwater Standard
Underline = result meets or exceeds WI Groundwater PAL
Italic = result exceeds MGP Tap Water RSL

Yellow highlighting = one or more Exceedances reported

Pink highlighting = result exceeds the MGP Groundwater Standard; Tap or PAL exceedances are not highlighted if they do not exceed the MGP Groundwater Standard

MGP screening levels used on this table were presented in the Multi-Site Risk Assessment Framework Addendum Revision 6 (Exponent, July 2017).

The MGP Groundwater Standard presented is the more conservative of the State and MCL values presented in the RAF Addendum Revision 6.

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

-- = Analysis not performed

< = Concentration is less than reported limit

U = Concentration was not detected above the reported limit

J = Estimated Concentration

(N) = Normalized sample locations created from combining parent and field duplicate samples following EPA protocol

µg/L = micrograms per liter

mg/L = milligrams per liter

s.u. = standard units

µS/cm = microsiemens per centimeter (aka micromhos per centimeter)

Deg C = degrees Celsius

NTU = Nephelometric Turbidity Unit

MGP = Manufactured Gas Plant

NS = No Standard

SL = Screening Level

RSL = Regional Screening Level

PAL = Preventive Action Limit

BTEX = Benzene, Toluene, Ethylbenzene and Xylene

VOC = Volatile Organic Compound

PAH = Polycyclic Aromatic Hydrocarbon

RNA = Remediation by Natural Attenuation (lab and field)

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

Total Number of Samples Analyzed:	21	21	18	20	18	18	18	18	18	18
Number of Detections:	8	15	18	20	18	18	18	18	18	18
Min:	130	29,100	0.13	2.5	-187.9	6.42	1,091.3	10.66	0.5	
Max:	2,100	1,780,000	3.22	9.38	170.8	8.04	26,372	14.87	33.54	
MGP Groundwater Standard SL:	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Number of Samples that Exceed MGP Groundwater Standard SL:	0	0	0	0	0	0	0	0	0	0
WI Groundwater PAL:	2,000	125,000	NS	NS	NS	NS	NS	NS	NS	NS
Number of Samples that Meet or Exceed WI PAL:	1	13	0	0	0	0	0	0	0	0
MGP Tap Water RSL:	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Number of Samples that Exceed Tap Water SL:	0	0	0	0	0	0	0	0	0	0

[O:ECK 1/11/18, C:SGW 1/11/18 C: TWL 1/12/18]



Table 2. November 2017 Groundwater Sample Results compared to VISLs

Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-Digit Code	Sample Location	Sample Date	VOC	VOC	VOC	VOC	VOC	VOC	VOC	PAH	
			Benzene	Ethylbenzene	Toluene	Xylene, o	Xylenes, m + p	Xylenes, Total	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene
Reporting Units:			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Groundwater VISL, Industrial:			6.9	15	81,000	2,100	1,500	1,600	1,032	1,032	20
Groundwater VISL, Residential:			1.6	3.5	19,000	490	360	380	250	250	4.6
112117011	MW-401BR	11/21/2017	<0.50 U	<0.50 U	0.81 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.020 U
112117010	MW-402R	11/21/2017	1,090	148	64.6	77.7	93.5	171	62.3	<5.0 U	588
112117025	MW-403R	11/21/2017	1,070	64.0	25.5	50.9	50.1	101	18.5	<5.0 U	309
112117023/112117024 (N)	MW-404	11/21/2017	22.5	225	3.9	20.4	3.4	23.9	7.0	1.5	6.7
112117029	MW-405A	11/21/2017	--	--	--	--	--	--	--	--	--
112117022	MW-405B	11/21/2017	0.92 J	<0.50 U	0.70 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
112117021	MW-406	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.021 J
112017003	MW-407	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.020 U
112117020	MW-408	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
112117019	MW-409A	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
112117018	MW-409B	11/21/2017	<0.50 U	<0.50 U	0.62 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
112117017	MW-410R	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
112017008	MW-411AR	11/20/2017	933	46.0	<5.0 U	<5.0 U	<10.0 U	<15.0 U	<5.0 U	<5.0 U	6.2
112017007	MW-411B	11/20/2017	<0.50 U	<0.50 U	0.75 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.046 J
112017004/112017005 (N)	MW-412	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
112017006	MW-413	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.046 J
112117012	MW-414	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
112117013/112117014 (N)	MW-415A	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
112117015	MW-415B	11/21/2017	<0.50 U	<0.50 U	0.88 J	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
112117016	MW-416	11/21/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
112017002	MW-417	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.020 U
112017001	MW-418	11/20/2017	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
Total Number of Samples Analyzed:			21	21	21	21	21	21	21	21	21
Number of Detections:			5	4	8	3	3	3	3	1	7
Min:			0.92	46	0.62	20.4	3.4	23.9	7	1.5	0.021
Max:			1,090	225	64.6	77.7	93.5	171	62.3	1.5	588
Groundwater VISL, Industrial:			6.9	15	81,000	2,100	1,500	1,600	1,032	1,032	20
Number of Samples that Exceed GW VISL, Industrial:			4	4	0	0	0	0	0	0	2
Groundwater VISL, Residential:			1.6	3.5	19,000	490	360	380	250	250	4.6
Number of Samples that Exceed GW VISL, Residential:			4	4	0	0	0	0	0	0	4

[O:ECK 1/11/18, C:SGW 1/11/18 C: TWL 1/12/18]

Notes

Only analytes with VISLs are presented on this table

BOLD = result exceeds Industrial MGP Groundwater VISL 10-6

Underline = result exceeds Residential MGP Groundwater VISL 10-6

MGP screening levels used on this table were presented in the Multi-Site Risk Assessment Framework Addendum Revision 6 (Exponent, July 2017).

The vapor intrusion screening levels (VISLs) for groundwater are based on the indoor air RSL, and derived using EPA's VISL Calculator, Version 3.5.1 dated July 2016. As appropriate the VISLs were updated using the most current indoor air RSL developed utilizing EPA's RSL Calculator as of April 24, 2017.

VISLs used on this table are 10-6 risk value.

VISLs = Vapor Intrusion Screening Levels

Yellow highlighting = one or more Exceedances reported

Pink highlighting = result exceeds one or more screening criteria

Lab comments and definitions can be found in associated laboratory and validation reports.

GW = groundwater

MGP = Manufactured Gas Plant

(N) = Normalized sample locations created from combining parent and field duplicate samples following EPA protocol

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

-- = Analysis not performed

< = Concentration is less than reported limit

U = Concentration was not detected above the reported limit

J = Estimated Concentration

VOC = Volatile Organic Compound

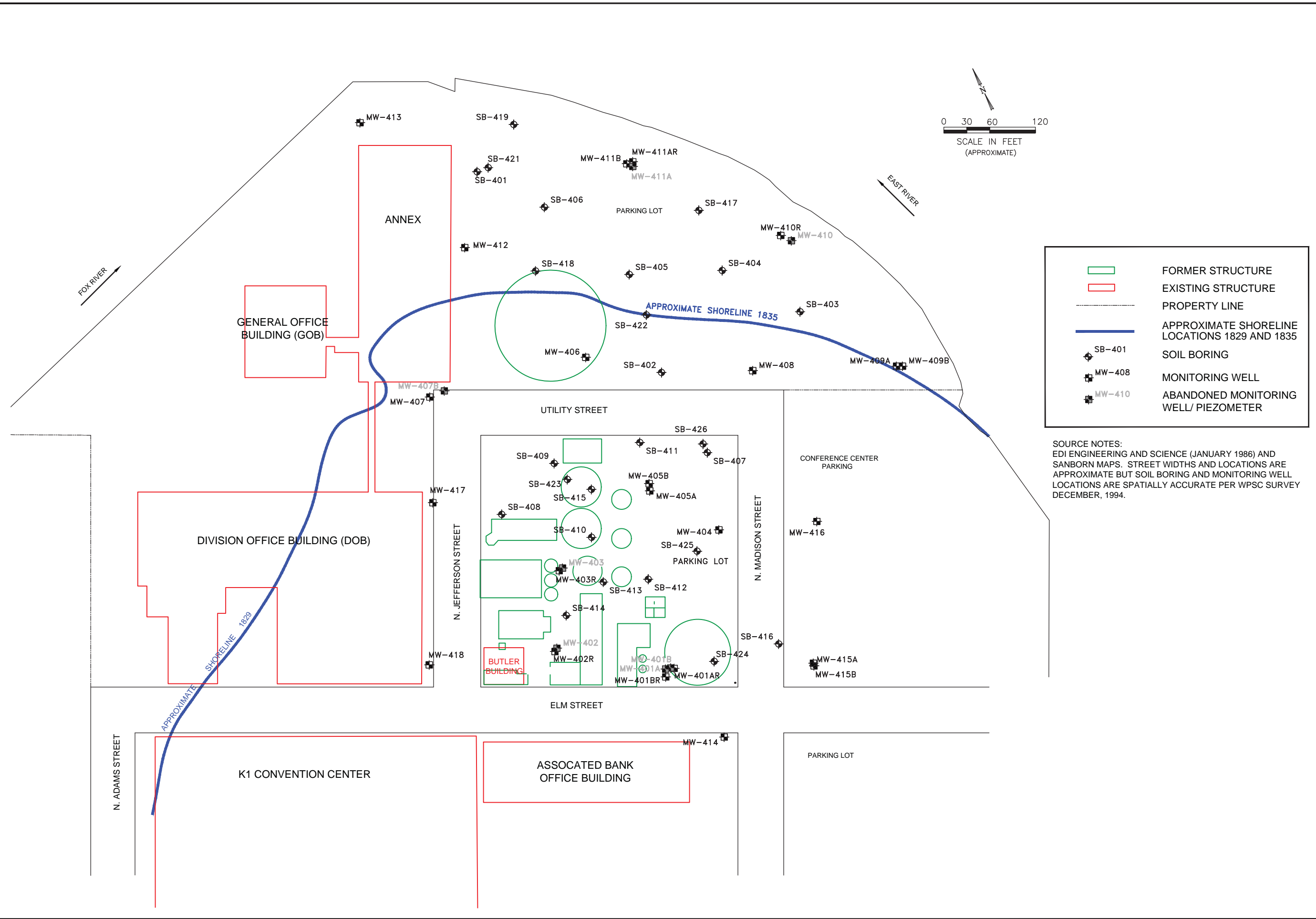
PAH = Polycyclic Aromatic Hydrocarbon





Figures

Mar 04, 2015 3:37pm PLOTTED BY: dduda - SAVED BY: dduda
 I:\ACADdata\Projects\1584\Gr Bay\16-3 SSWP Rev 2\1584-163-806.DWG Layout1
 USER: XREFS



	FORMER STRUCTURE
	EXISTING STRUCTURE
	PROPERTY LINE
	APPROXIMATE SHORELINE LOCATIONS 1829 AND 1835
	SOIL BORING
	MONITORING WELL
	ABANDONED MONITORING WELL/PIEZOMETER

SOURCE NOTES:
 EDI ENGINEERING AND SCIENCE (JANUARY 1986) AND SANBORN MAPS. STREET WIDTHS AND LOCATIONS ARE APPROXIMATE BUT SOIL BORING AND MONITORING WELL LOCATIONS ARE SPATIALLY ACCURATE PER WPSC SURVEY DECEMBER, 1994.

DRAWN BY:	DMD	DATE:	08/25/14
CHECKED BY:	PRB	DATE:	03/03/15
APPROVED BY:	BGH	DATE:	03/04/15
DRAWING NO:	1584-163-B06		
REFERENCE:	.		

Site Map



PROJECT NO.	1584/16.3
FIGURE NO.	1