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Dynegy Miami Fort, LLC

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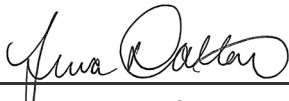
**2021 ANNUAL GROUNDWATER
MONITORING AND CORRECTIVE
ACTION REPORT**
POND SYSTEM
MIAMI FORT POWER PLANT
NORTH BEND, OHIO
CCR UNIT 115

**2021 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
MIAMI FORT POWER PLANT POND SYSTEM**

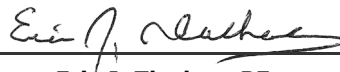
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Prepared by **Terra A. Dalton**
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Approved by **Eric J. Tlachac**
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Ramboll
234 W. Florida Street
Fifth Floor
Milwaukee, WI 53204
USA

T 414-837-3607
F 414-837-3608
<https://ramboll.com>



Terra A. Dalton
Senior Project Scientist



Eric J. Tlachac, PE
Senior Managing Engineer

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ACRONYMS AND ABBREVIATIONS

§	Section
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternate Source Demonstration
CCR	coal combustion residuals
CMA	Corrective Measures Assessment
GWPS	groundwater protection standard
MFPP	Miami Fort Power Plant
MNA	monitored natural attenuation
NA	not applicable
OBG	OBG, Part of Ramboll
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	Sampling and Analysis Plan
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
TBD	to be determined

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 40 of the Code of Federal Regulations (40 C.F.R.) Section (§) 257.90(e) for the Pond System located at Miami Fort Power Plant (MFPP) near North Bend, Ohio.

Groundwater is being monitored at the Pond System in accordance with the Assessment Monitoring Program requirements specified in 40 C.F.R. § 257.95. Assessment Monitoring was initiated at the Pond System on April 9, 2018.

No changes were made to the monitoring system in 2021.

The following Statistically Significant Levels (SSLs) of 40 C.F.R. § 257 Appendix IV parameters were determined in 2021:

- Arsenic at wells MW-2, MW-10, and MW-13
- Cobalt at wells 4A and MW-4
- Molybdenum at well MW-6

As required by 40 C.F.R. § 257.95(g)(3)(i), a Corrective Measures Assessment (CMA) (OBG, Part of Ramboll [OBG], 2019) following the requirements of 40 C.F.R. § 257.96 was initiated on May 8, 2019 and completed on September 5, 2019. The CMA was revised on November 12, 2020 (Ramboll Americas Engineering Solutions, Inc. [Ramboll], 2020a) to reflect the characterization of the Pond System as a single multi-unit, including an Alternate Source Demonstration (ASD) for SSLs of arsenic and molybdenum. The CMA was revised again on November 30, 2020 (Ramboll, 2020b) to include additional information related to site geology and hydrogeology, focus on application of evaluation factors identified in 40 C.F.R. § 257.96(c) to potential source control and groundwater corrective measures, and provide an independent evaluation of monitored natural attenuation (MNA).

A public meeting was held on December 16, 2019 at the Miami Township Community Center in North Bend, Ohio to discuss the results of the CMA in accordance with 40 C.F.R. § 257.96(e).

Remedy selection is in progress and the associated semiannual reports required by 40 C.F.R. § 257.97(a) are being completed.

1. INTRODUCTION

This report has been prepared by Ramboll on behalf of Dynegy Miami Fort, LLC, to provide the information required by 40 C.F.R. § 257.90(e) for the Pond System located at the MFPP near North Bend, Ohio.

In accordance with 40 C.F.R. § 257.90(e), the owner or operator of a coal combustion residuals (CCR) unit must prepare an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year that documents the status of the Groundwater Monitoring and Corrective Action Program for the CCR unit, summarizes key actions completed, describes any problems encountered, discusses actions to resolve the problems, and projects key activities for the upcoming year. At a minimum, the annual report must contain the following information, to the extent available:

1. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit.
2. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken.
3. In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the Detection Monitoring or Assessment Monitoring Programs.
4. A narrative discussion of any transition between monitoring programs (*e.g.*, the date and circumstances for transitioning from Detection Monitoring to Assessment Monitoring in addition to identifying the constituent(s) detected at a Statistically Significant Increase [SSI] relative to background levels).
5. Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.
6. A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:
 - i. At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95.
 - ii. At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95.
 - iii. If it was determined that there was a SSI over background for one or more constituents listed in Appendix III of §257 pursuant to §257.94(e):
 - A. Identify those constituents listed in Appendix III of §257 and the names of the monitoring wells associated with the SSI(s).
 - B. Provide the date when the assessment monitoring program was initiated for the CCR unit.

- iv. If it was determined that there was a SSL above the Groundwater Protection Standard [GWPS] for one or more constituents listed in Appendix IV of §257 pursuant to §257.95(g) include all of the following:
 - A. Identify those constituents listed in Appendix IV of §257 and the names of the monitoring wells associated with the SSL(s).
 - B. Provide the date when the CMA was initiated for the CCR unit.
 - C. Provide the date when the public meeting was held for CMA for the CCR unit.
 - D. Provide the date when the CMA was completed for the CCR unit.
- v. Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection.
- vi. Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.

This report provides the required information for the Pond System for calendar year 2021.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

Groundwater is being monitored at the Pond System in accordance with the Assessment Monitoring Program requirements specified in 40 C.F.R. § 257.95. Assessment Monitoring was initiated on April 9, 2018. SSLs were determined for the Pond System and alternate source evaluations were inconclusive. In accordance with 40 C.F.R. § 257.95(g)(5), a CMA following the requirements of 40 C.F.R. § 257.96 was initiated on May 8, 2019 and completed on September 5, 2019. A public meeting was held on December 16, 2019 at the Miami Township Community Center in North Bend, Ohio to discuss the results of the CMA in accordance with 40 C.F.R. § 257.96(e). The CMA was revised on November 12, 2020 (Ramboll, 2020a) to reflect the characterization of the Pond System as a single multi-unit, including the ASD for arsenic and molybdenum SSLs referenced above. The CMA was revised again on November 30, 2020 (Ramboll, 2020b) to include additional information related to site geology and hydrogeology, focus on application of evaluation factors identified in 40 C.F.R. § 257.96(c) to potential source control and groundwater corrective measures, and provide an independent evaluation of MNA. Remedy selection is in progress and the associated semiannual reports required by 40 C.F.R. § 257.97(a) are being completed.

The Pond System remains in the Assessment Monitoring Program in accordance with 40 C.F.R. § 257.96(b).

3. KEY ACTIONS COMPLETED IN 2021

The Assessment Monitoring Program is summarized in **Table A** on the following page. The groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. No changes were made to the monitoring system in 2021. One groundwater sample was collected from each background and compliance well during each monitoring event. All samples were collected and analyzed in accordance with the Sampling and Analysis Plan (SAP; Ramboll, 2020c). All monitoring data obtained under 40 C.F.R. § 257.90 through 257.98 (as applicable) in 2021, and analytical results for the September 14 - 15, 2020 sampling event, are presented in **Tables 1 to 3**. Analytical data were evaluated in accordance with the Statistical Analysis Plan (Ramboll, 2020d) to determine any SSLs of Appendix IV parameters over GWPSs. Notifications were completed in accordance with 40 C.F.R. § 257.95(g).

Statistical background values are provided in **Table 4** and GWPSs in **Table 5**. The background values reported in **Table 4** are slightly different from those reported previously because different software was utilized to calculate these values in 2021.

Alternate source evaluations were inconclusive for one or more of the SSLs. Consequently, and in accordance with 40 C.F.R. § 257.95(g)(5), a CMA following the requirements of 40 C.F.R. § 257.96 was initiated on April 9, 2018 and the required notification completed. The CMA (OBG, 2019) was completed on September 5, 2019 and posted to the publicly accessible website, as required by 40 C.F.R. § 257.107(h)(8). The CMA was revised on November 12, 2020 (Ramboll, 2020a) to reflect the characterization of the Pond System as a single multi-unit, including an ASD for SSLs of arsenic and molybdenum. The CMA was revised again on November 30, 2020 (Ramboll, 2020b) to include additional information related to site geology and hydrogeology, focus on application of evaluation factors identified in 40 C.F.R. § 257.96(c) to potential source control and groundwater corrective measures, and provide an independent evaluation of MNA.

Remedy selection is in progress and the associated semiannual reports required by 40 C.F.R. § 257.97(a) were completed in March and September of 2021.

Table A. 2020-2021 Assessment Monitoring Program Summary

Sampling Dates	Analytical Data Receipt Date	Parameters Collected	SSL(s)	SSL(s) Determination Date	CMA Initiated
September 14 - 15, 2020	October 20, 2020	Appendix III Appendix IV Detected ¹	Arsenic (MW-10, MW-13, MW-2) Cobalt (4A, MW-4) Molybdenum (MW-6)	January 18, 2021	NA
March 24 - 25, 2021	April 14, 2021	Appendix III Appendix IV	Arsenic (MW-10, MW-2, MW-13) Cobalt (4A, MW-4) Molybdenum (MW-6)	July 13, 2021	NA
September 15 - 16, 2021	October 4, 2021	Appendix III Appendix IV Detected ¹	TBD	TBD	TBD

Notes:

NA: not applicable

TBD: to be determined

¹ Groundwater sample analysis was limited to Appendix IV parameters detected during previous events in accordance with 40 C.F.R. § 257.95(d)(1).

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the Groundwater Monitoring Program during 2021. Groundwater samples were collected and analyzed in accordance with the SAP (Ramboll, 2020c), and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2022

The following key activities are planned for 2022:

- Continuation of the Assessment Monitoring Program with semi-annual sampling scheduled for the first and third quarters of 2022.
- Complete evaluation of analytical data from the compliance wells, using GWPSs to determine whether an SSL of Appendix IV parameters has occurred.
- Remedy selection will continue; semiannual progress reports required by 40 C.F.R. § 257.97(a) will be completed and posted to the publicly accessible website as required by 40 C.F.R. § 257.107(h)(9).

6. REFERENCES

OBG, Part of Ramboll (OBG), 2019. Corrective Measures Assessment, Miami Fort Basin A, Miami Fort Power Station, 11021 Brower Road, North Bend, Ohio, Dynegy Miami Fort, LLC, September 5, 2019.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2020a. Corrective Measures Assessment Revision 1, Miami Fort Pond System, Miami Fort Power Station, 11021 Brower Road, North Bend, Ohio, Dynegy Miami Fort, LLC, November 12, 2020.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2020b. Corrective Measures Assessment Revision 2, Miami Fort Pond System, Miami Fort Power Station, 11021 Brower Road, North Bend, Ohio, Dynegy Miami Fort, LLC, November 30, 2020.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2020c, Sampling and Analysis Plan, Miami Fort Pond System, Project No. 74922, Revision 0, May 22, 2020.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2020d, Statistical Analysis Plan, Miami Fort Power Station Pond System, Project No. 74922, Revision 1, May 22, 2020.

TABLES

TABLE 1
GROUNDWATER ELEVATIONS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 MIAMI FORT POWER PLANT
 115 - POND SYSTEM
 NORTH BEND, OH

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Depth to Groundwater (ft BMP)	Groundwater Elevation (ft NAVD88)
MW-1	Compliance	39.11443	-84.81030	09/14/2020	50.14	454.35
				11/17/2020	49.95	454.54
				12/10/2020	49.53	454.96
				01/14/2021	47.86	456.63
				02/25/2021	48.38	456.11
				03/24/2021	41.20	463.29
				09/15/2021	49.79	454.70
MW-2	Compliance	39.11210	-84.81576	09/14/2020	20.18	452.05
				11/17/2020	19.23	453.00
				12/10/2020	19.38	452.85
				01/14/2021	19.20	453.03
				02/25/2021	15.60	456.63
				03/24/2021	17.83	454.40
				09/15/2021	18.74	453.49
MW-3A	Compliance	39.10982	-84.81220	09/14/2020	19.18	454.05
				11/17/2020	18.80	454.43
				12/10/2020	18.23	455.00
				01/14/2021	18.02	455.21
				02/25/2021	14.28	458.95
				03/24/2021	16.98	456.25
				09/15/2021	19.03	454.20
MW-4	Compliance	39.11035	-84.80939	09/14/2020	24.07	453.82
				11/17/2020	23.38	454.51
				12/10/2020	22.86	455.03
				01/14/2021	22.51	455.38
				02/25/2021	22.10	455.79
				03/24/2021	21.96	455.93
				09/15/2021	23.49	454.40
MW-5	Compliance	39.11154	-84.80745	09/14/2020	55.49	454.47
				11/17/2020	55.40	454.56
				12/10/2020	54.93	455.03
				01/14/2021	54.80	455.16
				02/25/2021	52.89	457.07
				03/24/2021	53.36	456.60
				09/15/2021	55.39	454.57
MW-6	Compliance	39.11321	-84.80799	09/14/2020	54.10	454.24
				11/17/2020	53.74	454.60
				12/10/2020	53.28	455.06
				01/14/2021	52.19	456.15
				02/25/2021	51.71	456.63
				03/24/2021	50.98	457.36
				09/15/2021	53.65	454.69
MW-7	Background	39.11521	-84.80826	09/14/2020	56.79	453.38
				11/17/2020	56.67	453.50
				12/10/2020	56.24	453.93
				01/14/2021	54.63	455.54

TABLE 1
GROUNDWATER ELEVATIONS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 MIAMI FORT POWER PLANT
 115 - POND SYSTEM
 NORTH BEND, OH

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Depth to Groundwater (ft BMP)	Groundwater Elevation (ft NAVD88)
MW-7	Background	39.11521	-84.80826	02/25/2021	55.09	455.08
				03/24/2021	53.54	456.63
				09/15/2021	56.46	453.71
MW-8	Compliance	39.11353	-84.81383	09/14/2020	40.57	452.86
				11/17/2020	39.66	453.77
				12/10/2020	39.80	453.63
				01/14/2021	38.34	455.09
				02/25/2021	37.58	455.85
				03/24/2021	37.84	455.59
				09/15/2021	39.76	NA
MW-9	Compliance	39.11313	-84.81568	09/14/2020	21.19	451.86
				11/17/2020	19.82	453.23
				12/10/2020	20.34	452.71
				01/14/2021	19.07	453.98
				02/25/2021	17.31	455.74
				03/24/2021	18.54	454.51
				09/15/2021	20.23	452.82
MW-10	Compliance	39.11130	-84.81480	09/14/2020	20.37	452.98
				11/17/2020	19.52	453.83
				12/10/2020	19.42	453.93
				01/14/2021	19.29	454.06
				02/25/2021	15.54	457.81
				03/24/2021	18.52	454.83
				09/15/2021	20.17	453.18
MW-11	Compliance	39.11062	-84.81375	09/14/2020	21.35	453.10
				11/17/2020	20.57	453.88
				12/10/2020	20.42	454.03
				01/14/2021	20.18	454.27
				02/25/2021	16.60	457.85
				03/24/2021	19.33	455.12
				09/15/2021	21.20	453.25
MW-12	Compliance	39.11110	-84.81034	09/14/2020	54.82	453.62
				11/17/2020	54.16	454.28
				12/10/2020	53.84	454.60
				01/14/2021	53.17	455.27
				02/25/2021	51.19	457.25
				03/24/2021	51.98	456.46
				09/15/2021	54.30	454.14
MW-13	Compliance	39.11081	-84.80753	09/14/2020	27.24	453.46
				11/17/2020	26.16	454.54
				12/10/2020	25.60	455.10
				01/14/2021	20.65	460.05
				02/25/2021	23.35	457.35
				03/24/2021	24.08	456.62
				09/15/2021	26.18	454.52
MW-14	Compliance	39.11035	-84.80936	09/14/2020	64.54	415.35

TABLE 1
GROUNDWATER ELEVATIONS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 MIAMI FORT POWER PLANT
 115 - POND SYSTEM
 NORTH BEND, OH

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Depth to Groundwater (ft BMP)	Groundwater Elevation (ft NAVD88)
MW-14	Compliance	39.11035	-84.80936	11/17/2020	Not Measured	
				12/10/2020	Not Measured	
				01/14/2021	Not Measured	
				02/25/2021	Not Measured	
				03/24/2021	56.95	422.94
				09/15/2021	25.35	454.54
MW-15	Compliance	39.11306	-84.80667	09/14/2020	43.37	454.15
				11/17/2020	42.75	454.77
				12/10/2020	42.33	455.19
				01/14/2021	41.54	455.98
				02/25/2021	40.56	456.96
				03/24/2021	39.79	457.73
				09/15/2021	42.68	454.84
MW-16	Compliance	39.11303	-84.80666	09/14/2020	43.18	454.11
				11/17/2020	42.56	454.73
				12/10/2020	42.14	455.15
				01/14/2021	41.38	455.91
				02/25/2021	40.35	456.94
				03/24/2021	39.62	457.67
				09/15/2021	42.51	454.78

Notes:
 BMP = below measuring point
 ft = foot/feet
 NAVD88 = North American Vertical Datum of 1988

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 MIAMI FORT POWER PLANT
 115 - POND SYSTEM
 NORTH BEND, OH

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Boron, total (mg/L)	Calcium, total (mg/L)	Chloride, total (mg/L)	Fluoride, total (mg/L)	pH (field) (SU)	Sulfate, total (mg/L)	Total Dissolved Solids (mg/L)
4A	Compliance	39.11249	-84.80635	09/15/2020	4.26	151	136	<0.15	7.3	350	952
				03/24/2021	4.51	143	130	0.157	7.1	319	884
				09/16/2021	4.07	169	125	0.177	7.2	286	<20
MW-1	Compliance	39.11443	-84.81030	09/14/2020	0.659	158	48.6	0.383	7.1	350	780
				03/25/2021	0.596	155	41.9	0.333	7.0	319	773
				09/15/2021	0.654	146	38.8	0.387	7.1	273	735
MW-2	Compliance	39.11210	-84.81576	09/14/2020	0.723	135	31.2	<0.15	6.8	35.4	624
				03/25/2021	1.01	135	34.7	<0.15	6.8	48.4	595
				09/15/2021	0.724	142	32.4	<0.15	6.7	35	693
MW-3A	Compliance	39.10982	-84.81220	09/14/2020	0.0441	54.6	24.8	<0.15	7.2	10.9	262
				03/25/2021	0.0458	44.7	24	0.178	7.2	16.4	214
				09/16/2021	0.0712	45.6	23.5	0.189	7.1	13.6	243
MW-4	Compliance	39.11035	-84.80939	09/14/2020	0.468	312	20.3	<0.15	6.0	1030	1730
				03/24/2021	0.407	277	20.2	<0.15	5.9	993	1640
				09/16/2021	0.544	306	18.9	<0.75	6.0	1070	1750
MW-5	Compliance	39.11154	-84.80745	09/14/2020	16	276	328	<0.15	6.9	343	1540
				03/25/2021	14.9	290	338	<0.15	7.0	341	1360
				09/16/2021	15	294	332	<0.15	6.9	318	1520
MW-6	Compliance	39.11321	-84.80799	09/14/2020	0.78	51.9	163	0.913	7.5	6.46	557
				03/25/2021	1.72	55.3	157	0.841	7.4	18.4	551
				09/16/2021	1.11	52.6	93.4	0.817	7.2	5.25	513
MW-7	Background	39.11521	-84.80826	09/14/2020	0.0717	113	4.79	<0.15	6.9	45.4	467
				03/24/2021	0.0806	105	5.78	<0.15	6.9	37.3	443
				09/15/2021	0.0937	103	3.58	<0.15	7.0	35.3	444
MW-8	Compliance	39.11353	-84.81383	09/14/2020	1.02	152	38.7	0.197	7.1	405	758

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 MIAMI FORT POWER PLANT
 115 - POND SYSTEM
 NORTH BEND, OH

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Boron, total (mg/L)	Calcium, total (mg/L)	Chloride, total (mg/L)	Fluoride, total (mg/L)	pH (field) (SU)	Sulfate, total (mg/L)	Total Dissolved Solids (mg/L)
MW-8	Compliance	39.11353	-84.81383	03/24/2021	2.04	149	35.9	0.193	7.1	412	901
				09/15/2021	0.731	118	44.2	0.255	7.1	265	651
MW-9	Compliance	39.11313	-84.81568	09/14/2020	3.17	181	87.1	0.352	7.2	486	966
				03/24/2021	2.22	166	65.9	0.297	7.1	369	892
				09/15/2021	4.01	187	99.2	0.378	7.0	430	1020
MW-10	Compliance	39.11130	-84.81480	09/14/2020	0.0478	47.5	22.7	0.229	7.8	18.7	249
				03/25/2021	0.075	57.3	39.6	0.24	7.7	19.5	294
				09/15/2021	0.0742	54.7	34.9	0.243	7.5	18.1	301
MW-11	Compliance	39.11062	-84.81375	09/14/2020	0.0542	49.1	26	0.174	7.8	43.1	248
				09/16/2021	0.0724	54.7	34.3	0.199	7.4	33	295
MW-12	Compliance	39.11110	-84.81034	09/15/2020	6.4	168	156	<0.15	6.7	514	979
				03/24/2021	5.28	152	128	<0.15	5.8	398	929
				09/16/2021	6.41	165	183	<0.15	5.8	<5	<20
MW-13	Compliance	39.11081	-84.80753	09/14/2020	0.0471	40.3	29.2	<0.15	7.8	54.9	<10
				03/24/2021	0.0618	39.5	27.3	0.199	7.5	48.7	247
				09/16/2021	0.0701	40.7	26.8	0.194	7.6	49	244
MW-14	Compliance	39.11035	-84.80936	09/15/2020	0.0494	42.2	29.9	<0.15	8.0	52.1	<10
				03/25/2021	0.0599	40.6	24.7	0.157	7.8	46.6	240
				09/16/2021	0.0761	41.3	24.2	0.153	7.7	47.7	222
MW-15	Compliance	39.11306	-84.80667	09/15/2020	0.208	130	107	0.206	7.2	106	672
				03/25/2021	0.229	127	101	0.216	7.1	111	659
				09/15/2021	0.333	123	149	0.241	7.1	82.4	687
MW-16	Compliance	39.11303	-84.80666	09/15/2020	0.0661	190	113	<0.15	6.9	112	928
				03/25/2021	0.0925	181	102	<0.15	6.8	99.8	948
				09/15/2021	0.0896	180	131	<0.15	6.8	98.2	932

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
MIAMI FORT POWER PLANT
115 - POND SYSTEM
NORTH BEND, OH

Notes:

mg/L = milligrams per liter

SU = Standard Units

< = concentration is less than the concentration shown, which corresponds to the reporting limit for the method; estimated concentrations below the reporting limit and associated qualifiers are not provided since they are not utilized in statistics to determine Statistically Significant Levels (SSLs) over background

TABLE 3
ANALYTICAL RESULTS - APPENDIX IV PARAMETERS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 MIAMI FORT POWER PLANT
 115 - POND SYSTEM
 NORTH BEND, OH

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Fluoride, total (mg/L)	Lead, total (mg/L)	Lithium, total (mg/L)	Mercury, total (mg/L)	Molybdenum, total (mg/L)	Radium 226+228, total (pCi/L)	Selenium, total (mg/L)	Thallium, total (mg/L)
4A	Compliance	39.11249	-84.80635	09/15/2020	<0.004	<0.002	0.112	<0.002	<0.001	<0.002	0.0109	<0.15	<0.005	<0.04	<0.0002	0.014	1.4	<0.002	<0.002
				03/24/2021	<0.004	<0.002	0.119	<0.002	<0.001	<0.002	0.0127	0.157	<0.002	0.00785	<0.0002	0.0144	--	<0.002	<0.002
				09/16/2021	<0.004	0.00943	0.125	<0.002	<0.001	<0.002	0.00928	0.177	0.00534	0.00859	<0.0002	0.0193	--	<0.002	<0.002
MW-1	Compliance	39.11443	-84.81030	09/14/2020	--	<0.002	0.0421	<0.002	<0.001	<0.002	<0.002	0.383	<0.005	0.0327	<0.0002	0.0289	0.856	<0.002	<0.002
				03/25/2021	<0.004	<0.002	0.0432	<0.002	<0.001	<0.002	<0.002	0.333	<0.002	0.0285	<0.0002	0.0374	0.472	<0.002	<0.002
				09/15/2021	<0.004	<0.002	0.0394	<0.002	<0.001	<0.002	<0.002	0.387	<0.002	0.0392	<0.0002	0.0466	0.258	<0.002	<0.002
MW-2	Compliance	39.11210	-84.81576	09/14/2020	--	0.0259	0.458	<0.002	<0.001	<0.002	<0.002	<0.15	<0.005	<0.01	<0.0002	<0.005	0.579	<0.002	<0.002
				03/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	0.361	--	--
				03/25/2021	<0.004	0.0236	0.434	<0.002	<0.001	<0.002	<0.002	<0.15	0.004	0.00248	<0.0002	<0.005	--	<0.002	<0.002
				09/15/2021	<0.004	0.0355	0.5	<0.002	<0.001	<0.002	<0.002	<0.15	<0.002	0.00206	<0.0002	<0.005	0.555	<0.002	<0.002
MW-3A	Compliance	39.10982	-84.81220	09/14/2020	--	0.0121	0.133	<0.002	<0.001	0.0253	<0.002	<0.15	<0.005	0.00276	<0.0002	<0.005	1.76	<0.002	<0.002
				03/25/2021	<0.004	0.00467	0.104	<0.002	<0.001	<0.002	<0.002	0.178	<0.002	<0.002	<0.0002	<0.005	0.367	<0.002	<0.002
				09/16/2021	<0.004	0.00578	0.107	<0.002	<0.001	<0.002	<0.002	0.189	<0.002	<0.002	<0.0002	<0.005	0.948	<0.002	<0.002
MW-4	Compliance	39.11035	-84.80939	09/14/2020	--	0.00473	0.0237	<0.002	0.00152	0.00284	0.0149	<0.15	<0.005	<0.01	<0.0002	<0.005	0.171	<0.002	<0.002
				03/24/2021	<0.004	<0.002	0.02	<0.002	<0.001	0.00209	0.0135	<0.15	<0.002	0.0049	<0.0002	<0.005	0.506	<0.002	<0.002
				09/16/2021	<0.004	<0.002	0.0221	<0.002	<0.001	<0.002	0.0158	<0.75	<0.002	0.00578	<0.0002	<0.005	0.427	<0.002	<0.002
MW-5	Compliance	39.11154	-84.80745	09/14/2020	--	<0.002	0.0839	<0.002	<0.001	<0.002	<0.002	<0.15	<0.005	<0.1	<0.0002	0.00554	0.278	<0.002	<0.002
				03/25/2021	<0.004	<0.002	0.0809	<0.002	<0.001	<0.002	<0.002	<0.15	<0.002	0.00889	<0.0002	0.0143	1.16	<0.002	<0.002
				09/16/2021	<0.004	<0.002	0.0699	<0.002	<0.001	<0.002	<0.002	<0.15	<0.002	0.00982	<0.0002	0.0267	0.164	<0.002	<0.002
MW-6	Compliance	39.11321	-84.80799	09/14/2020	--	0.0108	0.676	<0.002	<0.001	<0.002	0.00266	0.913	<0.005	<0.01	<0.0002	0.286	0.735	<0.002	<0.002
				03/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	0.282	--	--
				03/25/2021	<0.004	0.0102	0.389	<0.002	<0.001	<0.002	0.00284	0.841	<0.002	0.00887	<0.0002	0.294	--	<0.002	<0.002
				09/16/2021	<0.004	0.0126	0.711	<0.002	<0.001	<0.002	0.00294	0.817	<0.002	0.00899	<0.0002	0.249	1.22	<0.002	<0.002
MW-7	Background	39.11521	-84.80826	09/14/2020	--	<0.002	0.0958	<0.002	<0.001	<0.002	<0.002	<0.15	<0.005	0.00411	<0.0002	<0.005	0.86	<0.002	<0.002
				03/24/2021	<0.004	<0.002	0.0945	<0.002	<0.001	<0.002	<0.002	<0.15	<0.002	0.00398	<0.0002	<0.005	0.534	<0.002	<0.002
				09/15/2021	<0.004	<0.002	0.0851	<0.002	<0.001	<0.002	<0.002	<0.15	<0.002	0.00456	<0.0002	<0.005	1.12	<0.002	<0.002
MW-8	Compliance	39.11353	-84.81383	09/14/2020	--	<0.002	0.0454	<0.002	<0.001	<0.002	<0.002	0.197	<0.005	<0.02	<0.0002	0.00668	0.342	<0.002	<0.002
				03/24/2021	<0.004	<0.002	0.035	<0.002	<0.001	<0.002	<0.002	<0.002	0.193	<0.002	0.0192	<0.0002	0.00606	0.126	0.00328

TABLE 3
ANALYTICAL RESULTS - APPENDIX IV PARAMETERS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 MIAMI FORT POWER PLANT
 115 - POND SYSTEM
 NORTH BEND, OH

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Fluoride, total (mg/L)	Lead, total (mg/L)	Lithium, total (mg/L)	Mercury, total (mg/L)	Molybdenum, total (mg/L)	Radium 226+228, total (pCi/L)	Selenium, total (mg/L)	Thallium, total (mg/L)	
MW-8	Compliance	39.11353	-84.81383	09/15/2021	<0.004	<0.002	0.0463	<0.002	<0.001	<0.002	<0.002	0.255	<0.002	0.013	<0.0002	0.00776	0.778	<0.002	<0.002	
MW-9	Compliance	39.11313	-84.81568	09/14/2020	--	<0.002	0.0979	<0.002	<0.001	<0.002	<0.002	0.352	<0.005	<0.02	<0.0002	0.0609	0.388	<0.002	<0.002	
				03/24/2021	<0.004	<0.002	0.0872	<0.002	<0.001	<0.002	<0.002	<0.002	0.297	<0.002	0.00636	<0.0002	0.0439	0.18	<0.002	<0.002
				09/15/2021	<0.004	<0.002	0.106	<0.002	<0.001	<0.002	<0.002	<0.002	0.378	<0.002	0.0138	<0.0002	0.0687	0.333	<0.002	<0.002
MW-10	Compliance	39.11130	-84.81480	09/14/2020	--	0.0253	0.142	<0.002	<0.001	<0.002	<0.002	0.229	<0.005	<0.002	<0.0002	0.00529	0.502	<0.002	<0.002	
				03/25/2021	<0.004	0.0165	0.158	<0.002	<0.001	<0.002	<0.002	0.24	<0.002	0.00203	<0.0002	<0.005	0.743	<0.002	<0.002	
				09/15/2021	<0.004	0.023	0.154	<0.002	<0.001	<0.002	<0.002	0.243	<0.002	0.00256	<0.0002	<0.005	1.54	<0.002	<0.002	
MW-11	Compliance	39.11062	-84.81375	09/14/2020	--	0.0289	0.236	<0.002	<0.001	<0.002	<0.002	0.174	<0.005	0.00304	<0.0002	<0.005	1.16	<0.002	<0.002	
				03/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	0.444	--	--	
				09/16/2021	<0.004	0.0205	0.257	<0.002	<0.001	<0.002	<0.002	0.199	<0.002	0.00368	<0.0002	<0.005	1.06	<0.002	<0.002	
MW-12	Compliance	39.11110	-84.81034	09/15/2020	--	<0.002	<0.02	<0.002	0.00206	<0.002	0.00245	<0.15	<0.005	<0.04	0.000812	<0.005	0.851	<0.002	<0.002	
				03/24/2021	<0.004	<0.002	<0.02	<0.002	<0.001	0.0505	0.00236	<0.15	<0.002	0.00384	0.000949	<0.005	0.532	<0.002	<0.002	
				09/16/2021	<0.004	<0.002	0.0153	<0.002	0.00134	<0.002	0.0029	<0.15	<0.002	0.00392	0.000923	<0.005	1.25	<0.002	<0.002	
MW-13	Compliance	39.11081	-84.80753	09/14/2020	--	0.0134	0.2	<0.002	<0.001	<0.002	<0.002	<0.15	<0.005	0.00454	<0.0002	0.0113	3.84	<0.002	<0.002	
				03/24/2021	<0.004	0.0109	0.167	<0.002	<0.001	<0.002	<0.002	0.199	<0.002	0.00424	<0.0002	0.0108	0.448	<0.002	<0.002	
				09/16/2021	<0.004	0.0143	0.163	<0.002	<0.001	<0.002	<0.002	0.194	<0.002	0.00549	<0.0002	0.0124	1.09	<0.002	<0.002	
MW-14	Compliance	39.11035	-84.80936	09/15/2020	<0.004	<0.002	0.0389	<0.002	<0.001	<0.002	<0.002	<0.15	<0.005	0.00368	<0.0002	0.00604	1.43	<0.002	<0.002	
				03/25/2021	<0.004	<0.002	0.0391	<0.002	<0.001	<0.002	<0.002	0.157	<0.002	0.00405	<0.0002	0.00642	--	<0.002	<0.002	
				09/16/2021	<0.004	<0.002	0.0413	<0.002	<0.001	<0.002	<0.002	0.153	<0.002	0.00439	<0.0002	0.00624	--	<0.002	<0.002	
MW-15	Compliance	39.11306	-84.80667	09/15/2020	<0.004	<0.002	0.091	<0.002	<0.001	0.00396	0.00379	0.206	<0.005	0.00589	<0.0002	0.0258	0.211	<0.002	<0.002	
				03/25/2021	<0.004	<0.002	0.0886	<0.002	<0.001	0.0115	0.00371	0.216	0.0264	0.00665	<0.0002	0.0259	--	<0.002	<0.002	
				09/15/2021	<0.004	0.00342	0.0837	<0.002	<0.001	<0.002	0.00405	0.241	<0.002	0.0077	<0.0002	0.0314	--	<0.002	<0.002	
MW-16	Compliance	39.11303	-84.80666	09/15/2020	<0.004	<0.002	0.0951	<0.002	<0.001	<0.002	0.00347	<0.15	<0.005	0.0108	<0.0002	<0.005	0.0749	<0.002	<0.002	
				03/25/2021	<0.004	<0.002	0.0899	<0.002	<0.001	<0.002	<0.002	<0.15	<0.002	0.0116	<0.0002	<0.005	--	<0.002	<0.002	
				09/15/2021	<0.004	<0.002	0.0849	<0.002	<0.001	<0.002	0.00376	<0.15	<0.002	0.013	<0.0002	<0.005	--	<0.002	<0.002	

Notes:
 mg/L = milligrams per liter
 pCi/L = picoCuries per liter
 < = concentration is less than the concentration shown, which corresponds to the reporting limit for the method; estimated concentrations below the reporting limit and associated qualifiers are not provided since they are not utilized in statistics to determine Statistically Significant Levels (SSLs) over the groundwater protection standard.
 -- = not analyzed

TABLE 4
STATISTICAL BACKGROUND VALUES
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 MIAMI FORT POWER PLANT
 115 - POND SYSTEM
 NORTH BEND, OH

Parameter	Statistical Background Value (LPL/UPL)
40 C.F.R. Part 257 Appendix III	
Boron (mg/L)	0.266
Calcium (mg/L)	184
Chloride (mg/L)	19.4
Fluoride (mg/L)	0.128
pH (field) (SU)	5.9/8.1
Sulfate (mg/L)	75.0
Total Dissolved Solids (mg/L)	550

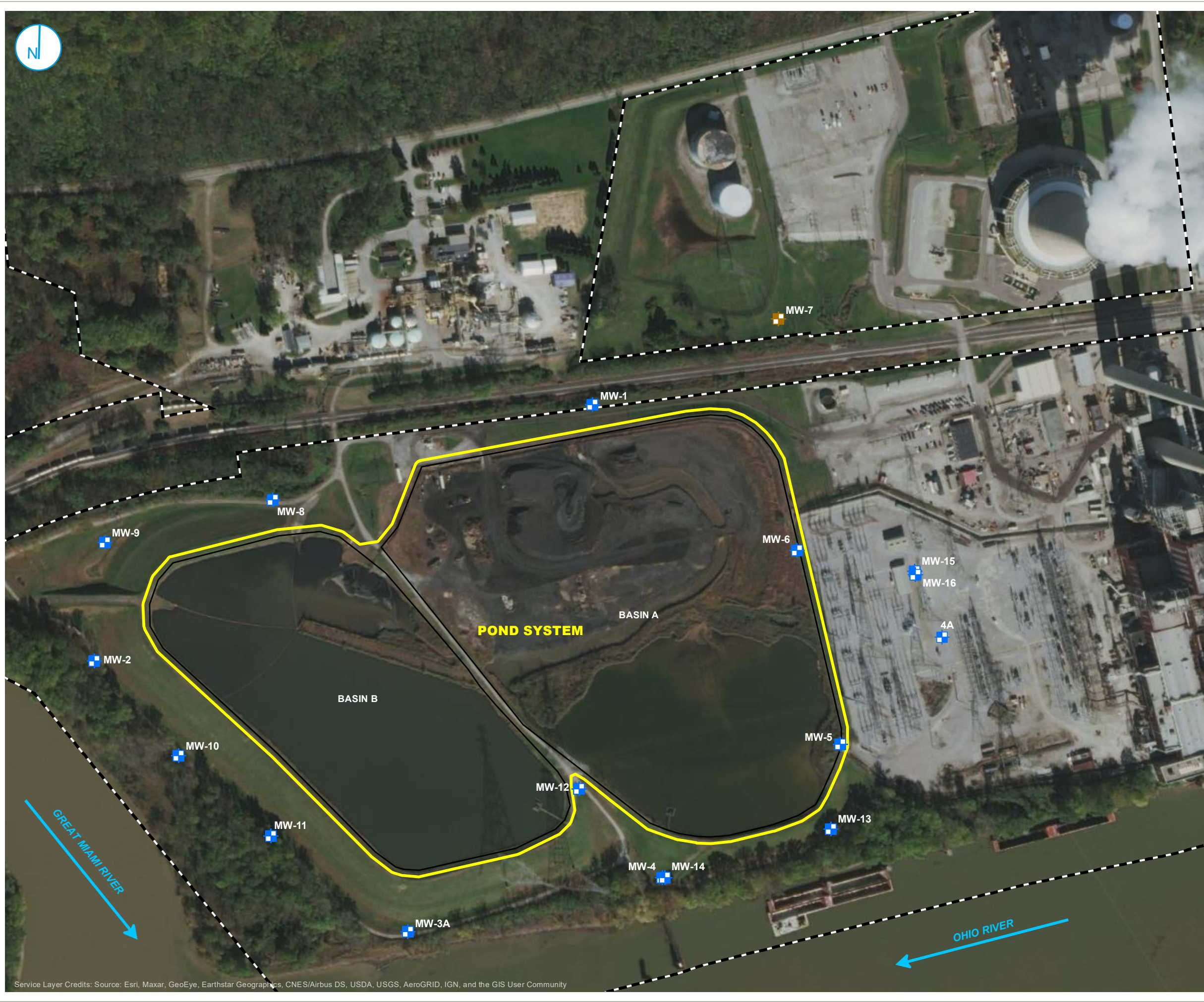
Notes:
 40 C.F.R. = Title 40 of the Code of Federal Regulations
 LPL = Lower Prediction Limit (applicable for pH only)
 mg/L = milligrams per liter
 SU = Standard Units
 UPL = Upper Prediction Limit

TABLE 5
GROUNDWATER PROTECTION STANDARDS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 MIAMI FORT POWER PLANT
 115 - POND SYSTEM
 NORTH BEND, OH

Parameter	Groundwater Protection Standard*
40 C.F.R. Part 257 Appendix IV	
Antimony (mg/L)	0.006
Arsenic (mg/L)	0.010
Barium (mg/L)	2
Beryllium (mg/L)	0.004
Cadmium (mg/L)	0.005
Chromium (mg/L)	0.1
Cobalt (mg/L)	0.006
Fluoride (mg/L)	4.0
Lead (mg/L)	0.015
Lithium (mg/L)	0.04
Mercury (mg/L)	0.002
Molybdenum (mg/L)	0.1
Radium-226 + Radium 228 (pCi/L)	5
Selenium (mg/L)	0.05
Thallium (mg/L)	0.002

Notes:
 * Groundwater Protection Standard is the higher of the Maximum Contaminant Level/Health-Based Level or background.
 40 C.F.R. = Title 40 of the Code of Federal Regulations
 mg/L = milligrams per liter
 pCi/L = picoCuries per liter

FIGURES



- BACKGROUND WELL
- COMPLIANCE WELL
- PART 257 REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- PROPERTY BOUNDARY

0 150 300
Feet

**MONITORING WELL LOCATION
MAP**

**2021 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT**
POND SYSTEM
MIAMI FORT POWER PLANT
NORTH BEND, OHIO

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

