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January 31, 2022

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Mr. David M. Heger
Senior Counsel
AES US Services, LLC
One Monument Circle, Suite 701A
Indianapolis, Indiana 46204-2901

Re: **2021 CCR Annual Groundwater Monitoring and Corrective Action Report**
Indianapolis Power & Light Company d/b/a AES Indiana (AESI)
Petersburg Generating Station – Ash Pond System
Petersburg, Indiana
ATC Project No. 170LF01113

Dear Mr. Heger:

ATC Group Services LLC (ATC) has prepared this 2021 CCR Annual Groundwater Monitoring and Corrective Action Report for the Ash Pond System at the AESI Petersburg Generating Station located outside Petersburg, Pike County, Indiana. This report has been prepared to comply with reporting requirements described in the United States Environmental Protection Agency's (USEPA) Coal Combustion Residuals (CCR) Rule § 257.90(e). This annual report documents the status of the groundwater monitoring and corrective action program for the ash pond system and includes information required by § 257.90(e)(1) through § 257.90(e)(6).

Federal CCR Rule § 257.90(e)(6) specifies the following:

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 statistically significant increase over background for one or more constituents listed in appendix III to this part pursuant to § 257.94(e): (A) Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase; and (B) Provide the date when the assessment monitoring program was initiated for the CCR unit. (iv) If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to

this part pursuant to § 257.95(g) include all of the following: (A) Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase; (B) Provide the date when the assessment of corrective measures was initiated for the CCR unit; (C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and (D) Provide the date when the assessment of corrective measures 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; and (vi) Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

Overview of 2021 Groundwater Monitoring and Corrective Action

For the duration of the 2021 reporting period, the CCR units at the Petersburg Generating Station – Ash Pond System were being monitored under the Assessment Monitoring Program defined in § 257.95. Pursuant to 40 CFR 257.94(e)(2), 257.94(e)(3) and 257.95(b), the facility had previously established an Assessment Monitoring Program in accordance with the requirements of § 257.95 on July 16, 2018. Therefore, evaluation of statistically significant increase over background for one or more constituents listed in Appendix III to this part pursuant to § 257.94(e) was not performed in 2021.

At the end of the 2021 reporting period, it was determined that the following Appendix IV constituents were present at statistically significant levels (SSLs) above the associated groundwater protection standards (GWPS) pursuant to § 257.95(g)1. The SSLs are as follows:

<u>Cadmium</u>

Shallow: AP-8[2]

<u>Cobalt</u>

Shallow: AP-8[3]

<u>Molybdenum</u>

Deep: AP-2A

The above listed SSLs are not new constituent SSLs and were previously identified. Therefore, no new SSL notification was required pursuant to § 257.94(e).

[1] SSLs provided are based on the May 2021 monitoring event as November 2021 sampling data was not finalized in 2021.

[2] An Alternate Source Demonstration (ASD) was successfully completed pursuant to § 257.95(g)(3)(ii) in October 2019 for total cadmium in monitoring well AP-8. The ASD report was provided as an attachment to the 2019 CCR Annual Groundwater Monitoring and Corrective Action Report dated January 30, 2020 for the AESI Petersburg Generating Station – Ash Pond System.

[3] An ASD was successfully completed pursuant to § 257.95(g)(3)(ii) in October 2019 for total cobalt in monitoring well AP-8. The ASD report was provided as an attachment to the 2019 CCR Annual Groundwater Monitoring and Corrective Action Report dated January 30, 2020 for the AESI Petersburg Generating Station – Ash Pond System.

The assessment of corrective measures was initiated for the Petersburg Generating Station CCR regulated units on April 15, 2019 in response to SSLs of Appendix IV constituents exceeding GWPS. Pursuant to 40 CFR §257.96(a), a demonstration of need for a 60-day extension for the assessment of corrective measures was completed on July 12, 2019. The Corrective Measures Assessment (CMA) Report was completed and placed in the facility operating record on September 13, 2019 and subsequently amended on October 11, 2019. Groundwater nature and extent work is ongoing at the facility in support of characterizing the extent of the CCR contamination plume and further support of the CMA. Once the N&E is sufficiently completed, a public meeting will be held, a remedy will be selected pursuant to § 257.97, and implementation of the selected remedy will be initiated thereafter in accordance with § 257.98.

Federal CCR Rule § 257.90(e) specifies the following:

> *For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2019, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).*

The following key actions have been completed in 2021 to comply with 40 CFR 257.90-98:

- Efforts to determine the nature and extent (N&E) of the Appendix IV SSLs continued pursuant to § 257.95(g) including but not limited to the installation of additional monitoring equipment[4], review of groundwater analytical results/data to improve the groundwater site conceptual model.

- November 2020 laboratory analytical reports were finalized and placed in the facility operating record pursuant to 40 CFR 257.95(d)(1).

- Semi-annual assessment monitoring sampling events were conducted in 2021 as required by § 257.95(b) and § 257.95(d)(1). Pursuant to 40 CFR 257.95(b), all Appendix IV constituents were sampled in 2021. Pursuant to 40 CFR 257.95(d)(1), semi-annual sampling of all Appendix III parameters and Appendix IV constituents detected in response to 40 CFR

[4] N&E monitoring wells MW-21B, MW-21I, MW-21A, MW-25B, MW-25I, MW-25A, MW-26B, MW-26I, MW-26A, MW-27B, MW-28B, MW-28I, MW-28A, MW-29B, MW-29I, and MW-29A were installed in 2021. Well locations are depicted on Figure 2.

257.95(b) was conducted in 2021. All sampling events were performed in consistent with 40 CFR 257.93(e). Subsequent SSL evaluation of the November 2020 and May 2021 data were performed within 90 days of completing the sampling and analysis pursuant to § 257.93(h)(2)[5].

- Semi-Annual Remedy Selection Progress Reports pursuant to § 257.97(a) for the period of September 13, 2020 through March 11, 2021, and for the period of March 12, 2021 through September 13, 2021 were completed and placed in the facility's operating record and posted to AESI's CCR Website.

To report on the activities conducted during the prior calendar year and document compliance with the CCR Rule, the specific requirements listed in § 257.90(e)(1) through § 257.90(e)(5) are provided below in bold/italic type followed by a short narrative addressing how that specific requirement has been met.

At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

§ 257.90(e)(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;

AESI operates the Petersburg Station, located approximately four miles north of Petersburg, Indiana. It is located at 6925 North State Road 57, Petersburg, Indiana. A Site Location Map is provided as Figure 1. A map showing the location of each CCR management unit, associated upgradient and downgradient CCR monitoring wells, and N&E monitoring equipment installed between 2019 and 2021 is provided as Figure 2.

§ 257.90(e)(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;

The CCR groundwater monitoring network at the Petersburg Ash Pond System consists of seventeen (17) monitoring wells: three (3) upgradient monitoring wells MW-2R, MW-3, and MW-4C and fourteen (14) downgradient monitoring wells; AP-1R, AP-2A, AP-2BO, AP-3, AP-3A, AP-4A, AP-4B, AP-4I, AP-5, AP-5A, AP-6A, AP-6B, AP-7, and AP-8.

In addition to the CCR ash pond groundwater monitoring system, five (5) N&E wells (AP-9A, AP-10A, MW-19B, MW-19I, and MW-19A) and three piezometers (P-4 2019, IAPZ-1, and AP-11A) were installed in 2019. Monitoring Wells MW-19B, MW-19I and MW-19B were installed at the facility boundary pursuant to § 257.95(g)(1)(iii). These wells were installed to characterize the nature and extent of the contamination plume and to support the CMA.

Four (4) nested piezometers (APA-PW-1B, APA-PW-1S, APA-PW-2B, APA-PW-2S, APA-PW-3B, APA-PW-3S, APA-PW-4B, and APA-PW-4S) were installed within the limits of Ash Pond A in

[5] Sampling results for the November 2020 and May 2021 semi-annual assessment monitoring events are summarized in Table 3 and Table 6, respectively. Please refer to Section § 257.90(e)(4) on Page 6 of this report regarding SSL evaluation results.

January 2020 to provide data to refine the understanding of the vertical groundwater flow characteristics and solute transport. A fifth piezometer nest (comprised of P-4 and IAPZ-1) was previously installed in Pond A in 2019.

Two nested piezometers (PZ-1A, PZ-1B, PZ-1I, PZ-2A, PZ-2B and PZ-2I) were installed adjacent to the discharge canal downgradient of the Ash Pond System in April 2020.

AESI installed an additional N&E monitoring well nest (MW-20A, MW-20I, and MW-20B) along the White River at the facility boundary in April 2020 to better define the lateral extent of Appendix IV constituents.

To characterize the N&E of the release and any relevant site condition that may affect the remedy ultimately selected, as required by § 257.95(g)(1), additional investigation activities were completed in 2021 as follows:

- A three-well nest (MW-21B, MW-21I, and MW-21A) was installed in January 2021 to better define the southerly lateral extent of Appendix IV constituents.

- Vertical groundwater profile borings (GWP- series) were completed in May and August 2021 at ten (10) locations west of the Ash Pond System and north of the Discharge Canal. At each location, groundwater grab samples were collected from the shallow, intermediate, and deep intervals to provide additional groundwater data to assess the N&E west of the Ash Pond System along the White River.

- Based on the results of the profile borings, AESI installed thirteen (13) additional N&E monitoring wells at five nested locations (MW-25B, MW-25I, MW-25A, MW-26B, MW-26I, MW-26A, MW-27B, MW-28B, MW-28I, MW-28A, MW-29B, MW-29I, and MW-29A) between August and September 2021. The wells were installed in order to provide supplemental groundwater data to define the horizontal and vertical extent of Appendix IV constituents along the White River.

While no monitoring wells were abandoned during the 2021 reporting period, the N&E piezometers IAPZ-1 and P-4 2019 (installed in 2019) and the eight (8) APA- series piezometers (installed in 2020) that were no longer needed for N&E purposes were properly abandoned in accordance with Indiana Department of Natural Resources 312 IAC 13 requirements in February 2021 in advance of Pond A closure activities.

The location of the CCR groundwater monitoring well network and N&E wells/piezometers are depicted on Figure 2.

§ 257.90(e)(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;

Table 1 provides a summary of the number of groundwater samples collected at each CCR monitoring well and N&E well, sampling dates, and designation of whether samples were required by the detection or assessment monitoring program. Groundwater elevation data is provided in Table 2. Semi-annual assessment and N&E monitoring (AP-9A, AP-10A, MW-19B, MW-19I, MW-19A, MW-20B, MW-20I, MW-20A, PZ-1B, PZ-1I, and PZ-1A) groundwater analytical results for the November 2020 sampling event are summarized in Table 3; these results were not finalized by the end of 2020 for inclusion in the associated 2020 Annual Report. N&E monitoring results for the January 2021 sampling event (MW-21B, MW-21I, and MW-21A) are summarized in Table 4. N&E monitoring results for the April 2021 sampling event (MW-21B, MW-21I, and MW-21A) are summarized in Table 5. Assessment and N&E monitoring (AP-9A, AP-10A, MW-19B, MW-19I, MW-19A, MW-20B, MW-20I, and MW-20A) groundwater analytical results for the May 2021 sampling event are summarized in Table 6. N&E monitoring results for the May 2021 GWP-1 through GWP-7 series groundwater profiling boring location sampling event are summarized in Table 7. N&E monitoring results for the August 2021 GWP-8 through GWP-10 series groundwater profiling boring location sampling event are summarized in Table 8. N&E monitoring results for the September 2021 sampling event (MW-20B, MW-20I, MW-20A, MW-25B, MW-25I, MW-25A, MW-26B, MW-26I, MW-26A, MW-27B, MW-28B, MW-28I, MW-28A, MW-29B, MW-29I, and MW-29A) are summarized in Table 9. Groundwater results for the November 2021 combined semi-annual assessment monitoring and N&E sampling event were not finalized in 2021 and therefore are not included with this submittal.

§ 257.90(e)(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 over background levels);

AESI Petersburg operated under the assessment monitoring program in accordance with § 257.95 during 2021. No transition between monitoring programs was conducted in 2021.

During 2021, statistical evaluations of the November 2020 and May 2021 analytical data were performed in order to determine whether there was a SSL of a new Appendix IV constituent detected above the relevant groundwater protection standards (GWPS) in accordance with § 257.95(g) and 257.93(h). The evaluations were completed in April 2021 and October 2021, respectively. Based on the evaluations, it was determined that the Appendix IV constituents that exceeded the GWPS include cadmium, cobalt, and molybdenum; however, these are the same constituent SSLs previously identified. Since there were no new Appendix IV constituents identified, an additional notification was not triggered pursuant to 40 CFR 257.95(g). SSLs and associated wells are summarized on Page 2.

§ 257.90(e)(5) Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

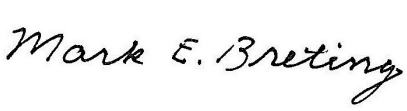
Table 10A and Table 10B summarize the groundwater protection standards established in accordance with § 257.95(d)(2) and § 257.95(h) associated with the November 2020 and May 2021 semi-annual assessment monitoring events, respectively.

Projected key activities for the upcoming year include the following:

- Assessment monitoring sampling events in accordance with § 257.95 and consistent with § 257.90(e).
- Finalize November 2021 analytical data and complete statistical evaluation of November 2021 analytical data to determine whether there is a SSL above GWPS for Appendix IV constituents in accordance with § 257.95(g) and 257.93(h). Perform SSL evaluations of final May 2022 assessment monitoring analytical data.
- Continue N&E work pursuant to § 257.95(g) which includes but is not limited to the installation of stream gauges along the White River and obtain water levels from the nearby monitoring wells to establish a potentiometric surface to further evaluate groundwater/surface water interaction in order to establish N&E along western property boundary downgradient of CCR regulated units.
- Potentially conduct public meeting to discuss the results of the corrective measures assessment at least 30 days prior to the selection of remedy pursuant to § 257.96(e).
- Prepare semi-annual report(s) describing progress in selecting and designing the remedy pursuant to § 257.97(a).

We appreciate the opportunity to assist with AESI's CCR Rule groundwater monitoring program at Petersburg Station's Ash Pond System. Please contact either of the undersigned at 317.849.4990 if you have any questions regarding this report.

Sincerely,
ATC Group Services LLC



Mark E. Breting, L.P.G.
Senior Project Geologist

Robert T. Duncan, L.P.G.
Principal Geologist

Copies: Ms. Nysa Hogue
Mr. John Hendrix
Mr. Erwin Leidolf

FIGURES

H:\2022\IPL\PETERSBURG\170LF01113\170LF01113-SITE LOCATION MAP.DWG, 11X17P

LEGEND:

- AES INDIANA PROPERTY BOUNDARY
- APPROXIMATE LIMITS OF CCR SURFACE IMPOUNDMENT
- APPROXIMATE LIMITS OF NON CCR SURFACE IMPOUNDMENT
- RESTRICTED WASTE SITE (RWS) TYPE I LANDFILL BOUNDARY
- PERMITTED EXPANSION AREA BOUNDARY

NOTE:
7.5 MINUTE (1:24,000) USGS QUADRANGLE MAPS
1980 SANDY HOOK, IN
1980 MONROE CITY, IN

KNOX CO
DAVIESS CO
PIKE CO
WHITE RIVER
EAST FORK OF WHITE RIVER
CONRAIL
ASH POND C
ASH POND B
ASH POND A
ASH POND A'
ASH POND D
RWS TYPE I AREA
LANDFILL EXPANSION AREA
PETERSBURG GENERATING STATION
Anderson-Chappell Ch
Cem
Strip Mines
Oil Well
Oil Well
Arda
BLACKBURN RD
Creek
W A S H I N G

NOTE:
ORIGINAL MAP SCALE = 1" TO 2,000'

N

1,000 0 500 1,000

SCALE: 1" = 1,000'

Figure: 1

Scale: AS SHOWN

Date: 1/22

SITE LOCATION MAP

AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

Project Number: 170LF01113	Drn. By: BH
Drawing File: SEE TOP LEFT	Ckd. By: MB
	App'd By:
	Ckd. Date:

H:\2022\IPL\PETERSBURG\170LF01113\170LF01113-ASH POND WELLS.DWG, 11X17P

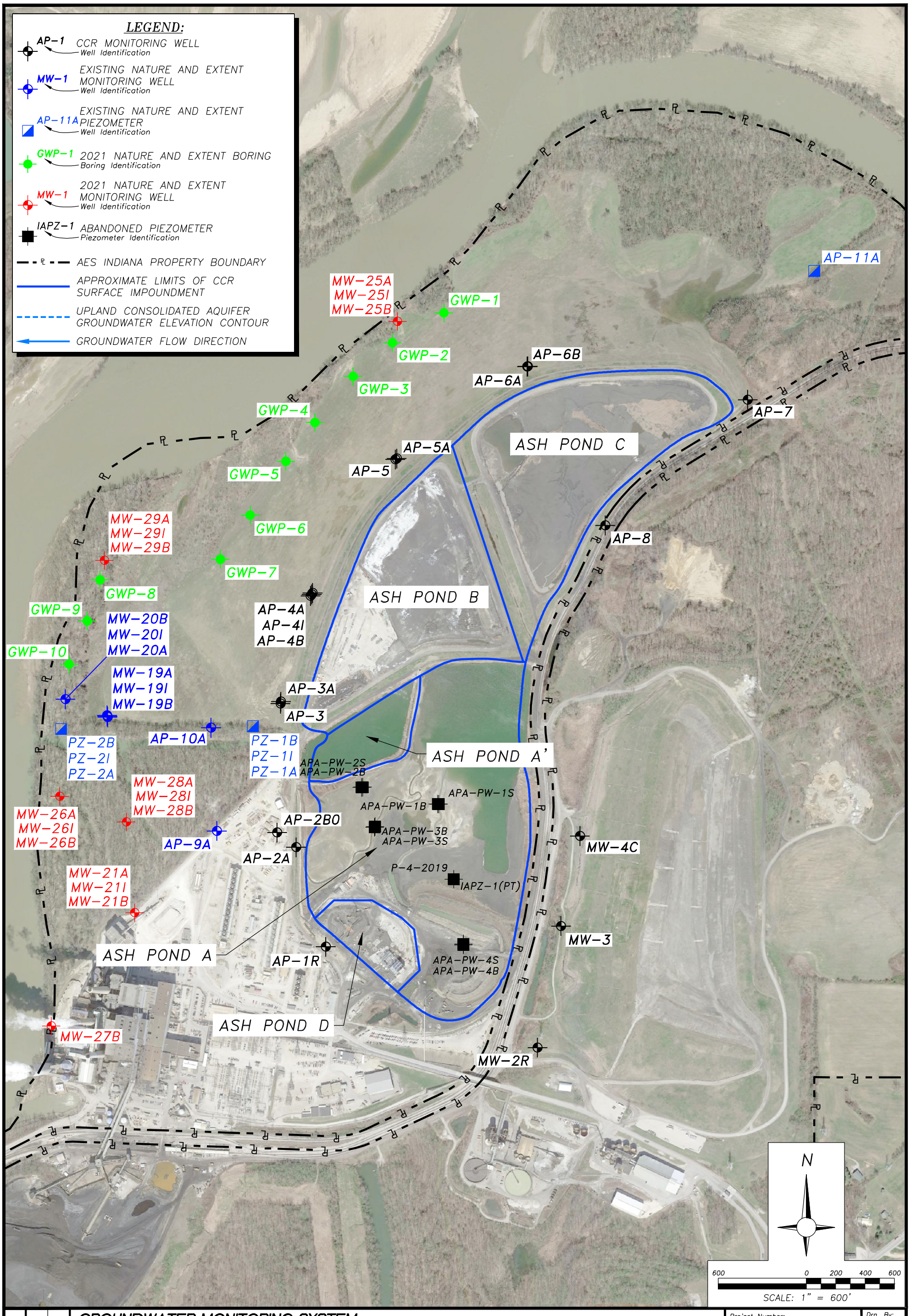


Figure: 2	Scale: AS SHOWN	Date: 1/13/2022

GROUNDWATER MONITORING SYSTEM
CCR NETWORK WELLS AND N AND E WELLS
AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

Project Number: 170LF01113	Drn. By: BH
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ATC	App'd By:
	Ckd. Date:

TABLES

Table 1
Well Sampling Summary
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-2 (2R)	MW-2 - 1986 MW-2R - 2/1/2017	Upgradient	2	5/5/2021 11/1/2021	Assessment
MW-3	1986	Upgradient	2	5/5/2021 11/1/2021	Assessment
MW-4C	9/29/1992	Upgradient	2	5/5/2021 11/1/2021	Assessment
AP-1R	4/5/2016	Downgradient	2	5/8/2021 11/4/2021	Assessment
AP-2A	6/11/2014	Downgradient	2	5/8/2021 11/4/2021	Assessment
AP-2BO	4/5/2016	Downgradient	2	5/8/2021 11/7/2021	Assessment
AP-3	6/9/2014	Downgradient	2	5/8/2021 11/7/2021	Assessment
AP-3A	5/13/2015	Downgradient	2	5/8/2021 11/7/2021	Assessment
AP-4A	6/16/2014	Downgradient	2	5/8/2021 11/7/2021	Assessment
AP-4I	6/16/2014	Downgradient	2	5/8/2021 11/7/2021	Assessment
AP-4B	6/17/2014	Downgradient	2	5/10/2021 11/7/2021	Assessment
AP-5	6/17/2014	Downgradient	2	5/10/2021 11/7/2021	Assessment
AP-5A	5/12/2015	Downgradient	2	5/10/2021 11/7/2021	Assessment
AP-6A	6/17/2014	Downgradient	2	5/10/2021 11/7/2021	Assessment
AP-6B	6/18/2014	Downgradient	2	5/10/2021 11/7/2021	Assessment
AP-7	6/10/2014	Downgradient	2	5/8/2021 11/3/2021	Assessment
AP-8	6/10/2014	Downgradient	2	5/7/2021 12/9/2021	Assessment
AP-9A	5/30/2019	Nature & Extent	2	5/11/2021 11/9/2021	Assessment
AP-10A	8/2/2019	Nature & Extent	2	5/10/2021 11/9/2021	Assessment
MW-19B	8/1/2019	Nature & Extent	2	5/11/2021 11/8/2021	Assessment Assessment
MW-19I	8/1/2019	Nature & Extent	2	5/11/2021 11/8/2021	Assessment Assessment

Table 1
Well Sampling Summary
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-19A	8/1/2019	Nature & Extent	2	5/11/2021	Assessment
				11/8/2021	Assessment
MW-20B	4/21/2020	Nature & Extent	3	5/10/2021	Assessment
				9/16/2021	
				11/8/2021	
MW-20I	4/21/2020	Nature & Extent	3	5/10/2021	Assessment
				9/16/2021	
				11/8/2021	
MW-20A	4/22/2020	Nature & Extent	3	5/10/2021	Assessment
				9/16/2021	
				11/8/2021	
MW-21B	4/21/2020	Nature & Extent	3	1/18/2021	Assessment
				4/2/2021	
				11/9/2021	
MW-21I	4/21/2020	Nature & Extent	3	1/18/2021	Assessment
				4/2/2021	
				11/9/2021	
MW-21A	4/22/2020	Nature & Extent	3	1/18/2021	Assessment
				4/2/2021	
				11/9/2021	
MW-25B	8/24/2021	Nature & Extent	2	9/15/2021	Assessment
				11/5/2021	
MW-25I	8/24/2021	Nature & Extent	2	9/15/2021	Assessment
				11/4/2021	
MW-25A	8/23/2021	Nature & Extent	2	9/15/2021	Assessment
				11/4/2021	
MW-26B	8/26/2021	Nature & Extent	2	9/16/2021	Assessment
				11/3/2021	
MW-26I	8/26/2021	Nature & Extent	2	9/16/2021	Assessment
				11/3/2021	
MW-26A	8/26/2021	Nature & Extent	2	9/16/2021	Assessment
				11/3/2021	
MW-27B	8/31/2021	Nature & Extent	2	9/17/2021	Assessment
				11/3/2021	
MW-28B	8/25/2021	Nature & Extent	2	9/17/2021	Assessment
				11/4/2021	
MW-28I	8/25/2021	Nature & Extent	2	9/17/2021	Assessment
				11/4/2021	
MW-28A	8/25/2021	Nature & Extent	2	9/17/2021	Assessment
				11/4/2021	
MW-29B	8/20/2021	Nature & Extent	2	9/15/2021	Assessment
				11/8/2021	

Table 1
Well Sampling Summary
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-29I	8/19/2021	Nature & Extent	2	9/16/2021 11/8/2021	Assessment
MW-29A	8/19/2021	Nature & Extent	2	9/15/2021 11/8/2021	Assessment
PZ-1B	4/29/2020	Nature & Extent	0	Not Sampled in 2021	Assessment
PZ-1I	4/29/2020	Nature & Extent	0	Not Sampled in 2021	Assessment
PZ-1A	4/28/2020	Nature & Extent	0	Not Sampled in 2021	Assessment

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
AP-1R	5/2/2021	443.08	29.11	413.97
	10/5/2021		34.33	408.75
	10/31/2021		33.07	410.01
AP-2A	5/2/2021	437.87	24.98	412.89
	10/5/2021		30.52	407.35
	10/31/2021		28.46	409.41
AP-2BO	5/2/2021	436.86	23.71	413.15
	10/5/2021		29.38	407.48
	10/31/2021		27.19	409.67
AP-3	5/2/2021	421.59	8.75	412.84
	10/5/2021		13.40	408.19
	10/31/2021		11.79	409.80
AP-3A	5/2/2021	421.56	9.57	411.99
	10/5/2021		14.18	407.38
	10/31/2021		12.50	409.06
AP-4A	5/2/2021	421.69	10.11	411.58
	10/5/2021		14.42	407.27
	10/31/2021		12.88	408.81
AP-4I	5/2/2021	421.82	10.20	411.62
	10/5/2021		14.49	407.33
	10/31/2021		13.00	408.82
AP-4B	5/2/2021	421.72	10.15	411.57
	10/5/2021		14.45	407.27
	10/31/2021		12.92	408.80
AP-5	5/2/2021	422.01	8.98	413.03
	10/5/2021		14.71	407.30
	10/31/2021		11.63	410.38
AP-5A	5/2/2021	422.52	9.92	412.60
	10/5/2021		15.10	407.42
	10/31/2021		11.90	410.62

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
AP-6A	5/2/2021	424.33	10.91	413.42
	10/5/2021		16.64	407.69
	10/31/2021		13.53	410.80
AP-6B	5/2/2021	424.40	10.94	413.46
	10/5/2021		16.64	407.76
	10/31/2021		13.55	410.85
AP-7	5/2/2021	434.62	11.02	423.60
	10/5/2021		12.59	422.03
	10/31/2021		11.66	422.96
AP-8	5/2/2021	444.20	5.62	438.58
	10/5/2021		7.72	436.48
	10/31/2021		7.44	436.76
MW-2 (2R)	5/2/2021	455.00	14.17	440.83
	10/5/2021		18.21	436.79
	10/31/2021		18.31	436.69
MW-3	5/2/2021	450.71	9.74	440.97
	10/5/2021		10.43	440.28
	10/31/2021		10.29	440.42
MW-4C	5/2/2021	454.44	5.55	448.89
	10/5/2021		6.14	448.30
	10/31/2021		5.90	448.54
AP-9A	5/2/2021	436.83	23.47	413.36
	10/5/2021		29.50	407.33
	10/31/2021		26.95	409.88
AP-10A	5/2/2021	422.41	9.75	412.66
	10/5/2021		15.35	407.06
	10/31/2021		12.54	409.87
AP-11A	5/2/2021	424.64	9.50	415.14
	10/5/2021		17.30	407.34
	10/31/2021		12.23	412.41

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-19B	5/2/2021	421.51	7.95	413.56
	10/5/2021		12.60 (DRY)	#VALUE!
	10/31/2021		10.46	411.05
MW-19I	5/2/2021	421.28	7.53	413.75
	10/5/2021		14.61	406.67
	10/31/2021		10.11	411.17
MW-19A	5/2/2021	421.41	7.62	413.79
	10/5/2021		14.70	406.71
	10/31/2021		10.18	411.23
MW-20A	5/2/2021	424.23	9.33	414.90
	9/16/2021		17.94	406.29
	10/5/2021		17.36	406.87
	10/31/2021		11.91	412.32
MW-20I	5/2/2021	424.00	9.08	414.92
	9/16/2021		18.45	405.55
	10/5/2021		17.14	406.86
	10/31/2021		11.71	412.29
MW-20B	5/2/2021	423.97	9.09	414.88
	9/16/2021		22.85	401.12
	10/5/2021		DRY	#VALUE!
	10/31/2021		11.93	412.04
MW-21A	1/18/2021	437.09	29.08	408.01
	4/2/2021		21.51	415.58
	5/2/2021		22.53	414.56
	10/5/2021		30.03	407.06
	10/31/2021		25.95	411.14

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-21I	1/18/2021	437.33	29.23	408.10
	4/2/2021		21.75	415.58
	5/2/2021		22.73	414.60
	10/5/2021		30.22	407.11
	10/31/2021		26.13	411.20
MW-21B	1/18/2021	437.24	29.16	408.08
	4/2/2021		21.67	415.57
	5/2/2021		22.70	414.54
	10/5/2021		30.15	407.09
	10/31/2021		26.06	411.18
MW-25A	9/15/2021	427.59	22.42	405.17
	10/5/2021		20.46	407.13
	10/31/2021		14.26	413.33
MW-25I	9/15/2021	427.43	22.36	405.07
	10/5/2021		20.30	407.13
	10/31/2021		14.14	413.29
MW-25B	9/15/2021	427.43	22.45	404.98
	10/5/2021		20.33	407.10
	10/31/2021		14.09	413.34
MW-26A	9/16/2021	423.03	18.55	404.48
	10/5/2021		16.50	406.53
MW-26I	9/16/2021	423.25	18.74	404.51
	10/5/2021		16.71	406.54
MW-26B	9/16/2021	423.13	18.59	404.54
	10/5/2021		16.53	406.60
MW-27B	9/17/2021	420.46	16.68	403.78
	10/5/2021		14.35	406.11
MW-28A	9/17/2021	424.68	19.78	404.90
	10/5/2021		17.72	406.96

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-28I	9/17/2021	424.26	19.54	404.72
	10/5/2021		17.50	406.76
MW-28B	9/17/2021	424.43	19.52	404.91
	10/5/2021		17.41	407.02
MW-29A	9/15/2021	427.13	22.15	404.98
	10/5/2021		19.67	407.46
	10/31/2021		14.50	412.63
MW-29I	9/16/2021	427.78	22.47	405.31
	10/5/2021		20.31	407.47
	10/31/2021		15.10	412.68
MW-29B	9/15/2021	428.17	23.16	405.01
	10/5/2021		20.69	407.48
	10/31/2021		15.54	412.63
PZ-1A	5/2/2021	423.63	10.50	413.13
	10/5/2021		15.71	407.92
	10/31/2021		13.68	409.95
PZ-1I	5/2/2021	423.69	10.61	413.08
	10/5/2021		15.81	407.88
	10/31/2021		13.73	409.96
PZ-1B	5/2/2021	422.54	9.47	413.07
	10/5/2021		14.65	407.89
	10/31/2021		12.55	409.99
PZ-2A	5/2/2021	422.55	7.39	415.16
	10/5/2021		15.87	406.68
	10/31/2021		10.03	412.52
PZ-2I	5/2/2021	423.02	7.85	415.17
	10/5/2021		16.31	406.71
	10/31/2021		10.47	412.55

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
PZ-2B	5/2/2021	423.50	8.30	415.20
	10/5/2021		16.71	406.79
	10/31/2021		10.99	412.51

Notes:
TOC = Top of Casing
ft-MSL = feet above Mean Sea Level

Table 3

Summary of Monitoring Results - November 2020
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		AP-1R	AP-2A	AP-2BO	AP-3
Sample Date		11/9/2020	11/9/2020	11/9/2020	11/7/2020
Lab ID		50272697001	50272697002	50272697003	50272697004
Static Water Elevation (ft MSL)		406.81	405.91	406.10	406.47
Field Parameters	**Units**				
Temperature	°C	21.61	18.71	19.36	17.31
Dissolved Oxygen, Field	mg/L	0.29	0.05	0.64	0.36
Conductivity, Field	uS/cm	2122.92	2311.52	2439.19	1934.54
ORP, Field	mV	-115.71	-136.12	13.46	84.3
pH, Field	Std. Units	6.83	7.29	6.98	6.67
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	NA	NA	NA	NA
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	1.9	4.6	2.7	<1
Barium, Total	ug/L	57.6	43.6	23.4	28.3
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	8590	17200	19600	5100
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	361000	528000	536000	423000
Chloride	mg/L	102	84.9	102	46.6
Chromium, Total	ug/L	NA	NA	NA	NA
Cobalt, Total	ug/L	<1.0	<1.0	3	<1.0
Fluoride	mg/L	<0.10	0.18	<0.10	<0.10
Iron, Dissolved	ug/L	NA	NA	NA	NA
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Dissolved	ug/L	NA	NA	NA	NA
Lithium, Total	ug/L	<20.0	84.9	<20.0	<20.0
Magnesium, Total	ug/L	NA	NA	NA	NA
Manganese, Dissolved	ug/L	NA	NA	NA	NA
Manganese, Total	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum, Dissolved	ug/L	NA	NA	NA	NA
Molybdenum, Total	ug/L	15.1	2430	235	<10.0
pH at 25 Degrees C	Std. Units	7.0	7.2	7.1	6.8
Potassium, Total	ug/L	NA	NA	NA	NA
Radium-226	pCi/L	<0.765	<0.756	0.679	0.0992
Radium-228	pCi/L	0.515	0.731	0.671	<1.11
Selenium, Total	ug/L	<1.0	<1.0	<1.0	1.4
Sodium, Total	ug/L	NA	NA	NA	NA
Sulfate	mg/L	967	1470	1510	933
Sulfide	mg/L	NA	NA	NA	NA
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	1840	2380	2400	1800
Total Organic Carbon	mg/L	NA	NA	NA	NA
Total Radium	pCi/L	<1.69	0.999	1.35	<1.24

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 3

Summary of Monitoring Results - November 2020
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		AP-3A	AP-4A	AP-4B	AP-4I
Sample Date		11/7/2020	11/7/2020	11/7/2020	11/7/2020
Lab ID		50272616001	50272616002	50272616004	50272616003
Static Water Elevation (ft MSL)		405.66	405.70	405.68	405.76
Field Parameters	**Units**				
Temperature	°C	17.57	17.66	17.99	17.14
Dissolved Oxygen, Field	mg/L	0.05	0.13	0.15	0.24
Conductivity, Field	uS/cm	2583.38	2731.08	1288.28	2498.88
ORP, Field	mV	-114.87	-79.95	61.52	-55.12
pH, Field	Std. Units	7.05	6.87	6.58	6.91
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	NA	NA	NA	NA
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	1.6	<1.0	<1.0	<1.0
Barium, Total	ug/L	35.2	32.2	70.8	30.6
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	27400	21000	1600	20000
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	699000	640000	261000	621000
Chloride	mg/L	140	128	13.5	108
Chromium, Total	ug/L	NA	NA	NA	NA
Cobalt, Total	ug/L	<1.0	<1.0	<1.0	2.1
Fluoride	mg/L	0.12	0.11	<0.10	0.2
Iron, Dissolved	ug/L	NA	NA	NA	NA
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Dissolved	ug/L	NA	NA	NA	NA
Lithium, Total	ug/L	<20.0	49.8	<20.0	<20.0
Magnesium, Total	ug/L	NA	NA	NA	NA
Manganese, Dissolved	ug/L	NA	NA	NA	NA
Manganese, Total	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum, Dissolved	ug/L	NA	NA	NA	NA
Molybdenum, Total	ug/L	599	228	<10.0	182
pH at 25 Degrees C	Std. Units	6.9	6.9	6.8	7.0
Potassium, Total	ug/L	NA	NA	NA	NA
Radium-226	pCi/L	<0.702	<0.649	0.587	0.625
Radium-228	pCi/L	1.29	1.66	0.68	1.55
Selenium, Total	ug/L	<1.0	<1.0	6.6	<1.0
Sodium, Total	ug/L	NA	NA	NA	NA
Sulfate	mg/L	1600	1800	352	1620
Sulfide	mg/L	NA	NA	NA	NA
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	2610	2740	972	2470
Total Organic Carbon	mg/L	NA	NA	NA	NA
Total Radium	pCi/L	1.35	1.71	1.27	2.18

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 3

Summary of Monitoring Results - November 2020
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		AP-5	AP-5A	AP-6A	AP-6B
Sample Date		11/7/2020	11/7/2020	11/7/2020	11/7/2020
Lab ID		50272616005	50272616006	50272616007	50272616008
Static Water Elevation (ft MSL)		407.13	407.41	407.58	407.61
Field Parameters	**Units**				
Temperature	°C	17.82	18.28	16.63	16.86
Dissolved Oxygen, Field	mg/L	0.08	0.2	0.09	0.77
Conductivity, Field	uS/cm	2440.92	2422.09	2126.23	1211.19
ORP, Field	mV	111.98	-78.9	-79.4	94.25
pH, Field	Std. Units	6.89	6.87	6.86	6.72
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	NA	NA	NA	NA
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Barium, Total	ug/L	35.3	30.8	27.7	30.4
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	11300	15600	12300	1210
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	608000	644000	476000	239000
Chloride	mg/L	80.6	52.2	41.9	12
Chromium, Total	ug/L	NA	NA	NA	NA
Cobalt, Total	ug/L	2.5	<1.0	<1.0	<1.0
Fluoride	mg/L	0.19	<0.10	<0.10	<0.10
Iron, Dissolved	ug/L	NA	NA	NA	NA
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Dissolved	ug/L	NA	NA	NA	NA
Lithium, Total	ug/L	23.7	<20.0	<20.0	<20.0
Magnesium, Total	ug/L	NA	NA	NA	NA
Manganese, Dissolved	ug/L	NA	NA	NA	NA
Manganese, Total	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum, Dissolved	ug/L	NA	NA	NA	NA
Molybdenum, Total	ug/L	131	236	<10.0	<10.0
pH at 25 Degrees C	Std. Units	7.1	7.0	7.0	6.9
Potassium, Total	ug/L	NA	NA	NA	NA
Radium-226	pCi/L	0.368	0.561	<0.695	<0.494
Radium-228	pCi/L	1.05	0.588	1.27	0.615
Selenium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Sodium, Total	ug/L	NA	NA	NA	NA
Sulfate	mg/L	1440	1800	1330	446
Sulfide	mg/L	NA	NA	NA	NA
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	2340	2440	2180	990
Total Organic Carbon	mg/L	NA	NA	NA	NA
Total Radium	pCi/L	1.42	1.15	1.27	<1.60

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 3

Summary of Monitoring Results - November 2020
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		AP-7	AP-8	AP-9A	AP-10A
Sample Date		11/5/2020	11/5/2020	11/6/2020	11/6/2020
Lab ID		50272616009	50272616010	50272614001	50272614002
Static Water Elevation (ft MSL)		423.10	437.45	406.32	406.25
Field Parameters	**Units**				
Temperature	°C	17.42	17.83	20.66	16.48
Dissolved Oxygen, Field	mg/L	0.14	0.05	0.31	0.11
Conductivity, Field	uS/cm	1199.76	1058.25	2832.04	2446.73
ORP, Field	mV	-63.71	106.78	-111.94	-124.36
pH, Field	Std. Units	6.45	5.12	7.04	7.09
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	NA	NA	NA	NA
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	<1.0	5.5	1.1	<1.0
Barium, Total	ug/L	67.8	14.6	42.6	32.2
Beryllium, Total	ug/L	<0.20	2.2	<0.20	<0.20
Boron, Total	ug/L	220	828	32200	28200
Cadmium, Total	ug/L	<2.0	6.7	<2.0	<2.0
Calcium, Total	ug/L	218000	128000	716000	702000
Chloride	mg/L	4.1	12.2	131	134
Chromium, Total	ug/L	NA	NA	NA	NA
Cobalt, Total	ug/L	<1.0	372	<1.0	<1.0
Fluoride	mg/L	0.16	0.76	0.22	0.11
Iron, Dissolved	ug/L	NA	NA	NA	NA
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Dissolved	ug/L	NA	NA	NA	NA
Lithium, Total	ug/L	<20.0	57.3	21.4	<20.0
Magnesium, Total	ug/L	NA	NA	NA	NA
Manganese, Dissolved	ug/L	NA	NA	NA	NA
Manganese, Total	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum, Dissolved	ug/L	NA	NA	NA	NA
Molybdenum, Total	ug/L	<10.0	<10.0	2190	721
pH at 25 Degrees C	Std. Units	6.7	5.4	7.1	7.0
Potassium, Total	ug/L	NA	NA	NA	NA
Radium-226	pCi/L	<0.783	0.332	0.408	<0.588
Radium-228	pCi/L	1.91	1.11	4.57	1.18
Selenium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Sodium, Total	ug/L	NA	NA	NA	NA
Sulfate	mg/L	273	579	1710	1570.0
Sulfide	mg/L	NA	NA	NA	NA
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	918	973	2860	2680
Total Organic Carbon	mg/L	NA	NA	NA	NA
Total Radium	pCi/L	2.03	1.44	4.98	1.18

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 3

Summary of Monitoring Results - November 2020
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-2R	MW-3	MW-4C	MW-19A
Sample Date		11/3/2020	11/3/2020	11/3/2020	11/6/2020
Lab ID		50272328001	50272328002	50272328003	50272614003
Static Water Elevation (ft MSL)		436.8	440.84	449.24	407.71
Field Parameters	**Units**				
Temperature	°C	16.62	17.14	17.47	14.56
Dissolved Oxygen, Field	mg/L	0.22	0.13	0.48	0.06
Conductivity, Field	uS/cm	2329.97	2025.11	2411.50	2175.88
ORP, Field	mV	-70.5	7.23	83.86	-170.56
pH, Field	Std. Units	6.78	7.37	7.05	7.08
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	NA	NA	NA	NA
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	8.9	20.5	<1.0	1.0
Barium, Total	ug/L	45	39.4	30.7	37.6
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	2170	989	4090	23700
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	528000	346000	577000	618000
Chloride	mg/L	75.2	80.3	41.3	117
Chromium, Total	ug/L	NA	NA	NA	NA
Cobalt, Total	ug/L	3.1	2.1	1.0	<1.0
Fluoride	mg/L	0.12	0.17	0.12	<0.10
Iron, Dissolved	ug/L	NA	NA	NA	NA
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Dissolved	ug/L	NA	NA	NA	NA
Lithium, Total	ug/L	522.0	1760	287	<20.0
Magnesium, Total	ug/L	NA	NA	NA	NA
Manganese, Dissolved	ug/L	NA	NA	NA	NA
Manganese, Total	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum, Dissolved	ug/L	NA	NA	NA	NA
Molybdenum, Total	ug/L	12.8	549	<10.0	788
pH at 25 Degrees C	Std. Units	7.2	7.6	7.2	7.0
Potassium, Total	ug/L	NA	NA	NA	NA
Radium-226	pCi/L	0.511	0.461	0.423	0.258
Radium-228	pCi/L	<1.01	<0.907	0.799	1.66
Selenium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Sodium, Total	ug/L	NA	NA	NA	NA
Sulfate	mg/L	1480	1180	1490	1480
Sulfide	mg/L	NA	NA	NA	NA
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	2320	1820	2380	2410
Total Organic Carbon	mg/L	NA	NA	NA	NA
Total Radium	pCi/L	<1.62	0.777	1.22	1.92

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 3

Summary of Monitoring Results - November 2020
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-19B	MW-19I	MW-20A	MW-20B
Sample Date		11/6/2020	11/6/2020	11/6/2020	11/6/2020
Lab ID		50272614005	50272614004	50272614006	50272614008
Static Water Elevation (ft MSL)		407.61	407.68	408.62	408.44
Field Parameters	**Units**				
Temperature	°C	15.59	14.47	15.20	15.40
Dissolved Oxygen, Field	mg/L	2.08	0.23	0.62	0.26
Conductivity, Field	uS/cm	561.32	649.09	1598.12	784.13
ORP, Field	mV	5.96	-31.44	-97.98	66.14
pH, Field	Std. Units	7.06	7.04	6.98	6.67
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	NA	NA	NA	NA
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	<1.0	<1.0	1.8	1.3
Barium, Total	ug/L	62.6	68.2	34.6	136
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	737	1290	13900	621
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	105000	125000	401000	166000
Chloride	mg/L	12.7	12.9	62.4	16.4
Chromium, Total	ug/L	NA	NA	NA	NA
Cobalt, Total	ug/L	<1.0	1.1	<1.0	2
Fluoride	mg/L	0.13	0.11	<0.10	<0.10
Iron, Dissolved	ug/L	NA	NA	NA	NA
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Dissolved	ug/L	NA	NA	NA	NA
Lithium, Total	ug/L	<20.0	<20.0	<20.0	<20.0
Magnesium, Total	ug/L	NA	NA	NA	NA
Manganese, Dissolved	ug/L	NA	NA	NA	NA
Manganese, Total	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum, Dissolved	ug/L	NA	NA	NA	NA
Molybdenum, Total	ug/L	<10.0	<10.0	282	<10.0
pH at 25 Degrees C	Std. Units	7.2	7.2	7.0	6.8
Potassium, Total	ug/L	NA	NA	NA	NA
Radium-226	pCi/L	0.324	0.631	0.379	<0.579
Radium-228	pCi/L	<0.956	<1.19	1.55	<0.987
Selenium, Total	ug/L	3.8	<1.0	<1.0	2.7
Sodium, Total	ug/L	NA	NA	NA	NA
Sulfate	mg/L	44.4	118	935	81.2
Sulfide	mg/L	NA	NA	NA	NA
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	364	475	1630	558
Total Organic Carbon	mg/L	NA	NA	NA	NA
Total Radium	pCi/L	0.809	<2.15	1.93	<1.57

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 3

Summary of Monitoring Results - November 2020
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-20I	PZ-1A	PZ-1I	PZ-1B
Sample Date		11/6/2020	11/23/2020	11/23/2020	11/23/2020
Lab ID		50272614007	50274159001	50274159002	50274159003
Static Water Elevation (ft MSL)		408.59	406.48	406.49	406.45
Field Parameters	**Units**				
Temperature	°C	14.88	15.84	15.19	12.98
Dissolved Oxygen, Field	mg/L	0.28	3.29	5.96	1.35
Conductivity, Field	uS/cm	568.01	2776.50	2874.10	913.48
ORP, Field	mV	9.17	-74	-86	24.1
pH, Field	Std. Units	7.02	7.32	7.41	7.00
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	NA	63.6	136	390
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	<1.0	4.8	5.1	7.3
Barium, Total	ug/L	60	89.6	68.9	117
Beryllium, Total	ug/L	<0.20	0.23	<0.20	<0.20
Boron, Total	ug/L	409	28200	26400	1500
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	111000	686000	628000	162000
Chloride	mg/L	8.9	142	139	16.3
Chromium, Total	ug/L	NA	10.6	<10.0	<10.0
Cobalt, Total	ug/L	<1.0	5.3	4.5	4.5
Fluoride	mg/L	<0.10	0.23	0.26	0.13
Iron, Dissolved	ug/L	NA	3080	4110	<100
Lead, Total	ug/L	<10.0	14	<10.0	<10.0
Lithium, Dissolved	ug/L	NA	23.1	33.4	<20.0
Lithium, Total	ug/L	<20.0	34.5	39.2	<20.0
Magnesium, Total	ug/L	NA	21000	65000	45400
Manganese, Dissolved	ug/L	NA	1770	2650	99.6
Manganese, Total	ug/L	NA	2450	3150	380
Mercury	ug/L	NA	<2.0	<2.0	<2.0
Molybdenum, Dissolved	ug/L	NA	267	261	<10.0
Molybdenum, Total	ug/L	<10.0	285	274	<10.0
pH at 25 Degrees C	Std. Units	7.2	7.1	7.2	7.0
Potassium, Total	ug/L	NA	15800	16200	3000
Radium-226	pCi/L	0.258	0.764	0.728	<1.58
Radium-228	pCi/L	0.561	<1.01	1.27	<1.09
Selenium, Total	ug/L	<1.0	<1.0	<1.0	2.9
Sodium, Total	ug/L	NA	46000	51900	12200
Sulfate	mg/L	38.7	1610	1620	128
Sulfide	mg/L	NA	<0.1	<0.1	<0.1
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	376	2500	2510	597
Total Organic Carbon	mg/L	NA	2.6	2.2	<1.0
Total Radium	pCi/L	0.819	1.14	2.00	<2.67

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 4

Summary of Monitoring Results - January 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-21A	MW-21B	MW-21I
Sample Date		1/18/2021	1/18/2021	1/18/2021
Lab ID		50278058001	50278058002	50278058003
Static Water Elevation (ft MSL)		408.01	408.08	408.10
Field Parameters	**Units**			
Temperature	°C	15.19	13.17	15.93
Dissolved Oxygen, Field	mg/L	0.03	0.00	0.13
Conductivity, Field	uS/cm	2650	1560	1600
ORP, Field	mV	-41.5	-93.4	-19.7
pH, Field	Std. Units	7.37	7.09	6.67
Analytical Data				
Alkalinity, Total as CaCO3	mg/L	78.7	481	338
Antimony, Total	ug/L	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	2.8	2.1	1.2
Barium, Total	ug/L	57.4	139	56.2
Beryllium, Total	ug/L	<0.20	0.25	<0.20
Boron, Total	ug/L	11200	771	3640
Cadmium, Total	ug/L	<2.0	<2.0	<2.0
Calcium, Total	ug/L	565000	267000	265000
Chloride	mg/L	116	56	72.3
Chromium, Total	ug/L	<10.0	<10.0	<10.0
Cobalt, Total	ug/L	1.5	9.2	1.2
Fluoride	mg/L	0.16	<0.1	0.14
Iron, Dissolved	ug/L	6250	147	5760
Lead, Total	ug/L	<10.0	<10.0	<10.0
Lithium, Dissolved	ug/L	75.3	<20.0	<20.0
Lithium, Total	ug/L	77.8	<20.0	<20.0
Magnesium, Total	ug/L	43400	61800	40000
Manganese, Dissolved	ug/L	999	2750	1440
Manganese, Total	ug/L	1090	2710	1510
Mercury	ug/L	<2.0	<2.0	<2.0
Molybdenum, Dissolved	ug/L	216	<10	121
Molybdenum, Total	ug/L	215	<10	120
pH at 25 Degrees C	Std. Units	7.2	6.9	7.2
Potassium, Total	ug/L	20000	2760	8530
Radium-226	pCi/L	<0.837	0.833	<0.738
Radium-228	pCi/L	0.962	0.641	0.456
Selenium, Total	ug/L	<1.0	<1.0	<1.0
Sodium, Total	ug/L	76100	27300	44300
Sulfate	mg/L	1560	400	475
Sulfide	mg/L	<0.10	<0.10	<0.10
Thallium, Total	ug/L	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	2460	1180	1110
Total Organic Carbon	mg/L	1.6	2.3	1.9
Total Radium	pCi/L	1.15	1.47	<1.51

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not Analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 5
Summary of Monitoring Results - April 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-21A	MW-21B	MW-21I
Sample Date		4/2/2021	4/2/2021	4/2/2021
Lab ID		50283951001	50283951002	50283951003
Static Water Elevation (ft MSL)		415.58	415.57	415.58
Field Parameters	**Units**			
Temperature	°C	14.79	16.47	15.70
Dissolved Oxygen, Field	mg/L	0.29	0.15	0.14
Conductivity, Field	uS/cm	2684.7	1710.7	1557.1
ORP, Field	mV	-110.6	27.7	-107.5
pH, Field	Std. Units	7.36	6.66	7.00
Analytical Data				
Alkalinity, Total as CaCO3	mg/L	80.8	432	344
Antimony	ug/L	<1.0	<1.0	<1.0
Arsenic	ug/L	3.6	<1.0	1.9
Barium	ug/L	57.2	89.1	62.4
Beryllium	ug/L	<0.20	<0.20	<0.20
Boron	ug/L	11200	716	3550
Cadmium	ug/L	<2.0	<2.0	<2.0
Calcium	ug/L	572000	299000	280000
Chloride	mg/L	118	57.3	75.3
Chromium	ug/L	<10.0	<10.0	<10.0
Cobalt	ug/L	2.9	5.4	2.4
Fluoride	mg/L	0.13	<0.10	0.13
Iron, Dissolved	ug/L	6680	<100	5850
Lead	ug/L	<10.0	<10.0	<10.0
Lithium	ug/L	82.0	<20.0	<20.0
Lithium, Dissolved	ug/L	77.7	<20.0	<20.0
Magnesium	ug/L	43500	69000	41300
Manganese	ug/L	1240	4580	1570
Manganese, Dissolved	ug/L	975	4210	1380
Mercury	ug/L	<2.0	<2.0	<2.0
Molybdenum	ug/L	211	<10.0	115
Molybdenum, Dissolved	ug/L	211	<10.0	113
pH at 25 Degrees C	Std. Units	7.2	6.9	7.4
Potassium	ug/L	20600	2450	8720
Radium-226	pCi/L	1.09	<0.854	<0.872
Radium-228	pCi/L	1.23	<0.878	<0.521
Selenium	ug/L	<1.0	<1.0	<1.0
Sodium	ug/L	75100	33300	44700
Sulfate	mg/L	1550	545	463
Sulfide	mg/L	<0.10	<0.10	<0.10
Thallium	ug/L	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	525	1310	1090
Total Organic Carbon	mg/L	1.8	1.9	1.7
Total Radium	pCi/L	2.32	<1.73	<0.830

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not Analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		AP-1R	AP-2A	AP-2BO	AP-3
Sample Date		5/8/2021	5/8/2021	5/8/2021	5/8/2021
Lab ID		50287048001	50287048002	50287048003	50287048004
Static Water Elevation (ft MSL)		413.97	412.89	413.15	412.84
Field Parameters	**Units**				
Temperature	°C	18.45	17.13	16.74	14.63
Dissolved Oxygen, Field	mg/L	0.48	0.06	0.62	1.25
Conductivity, Field	uS/cm	2262.2	2554.2	2668.3	1997.5
ORP, Field	mV	-106.5	-130.8	48.4	29.3
pH, Field	Std. Units	6.97	7.43	6.89	6.77
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	262	34.7	145	354
Alkalinity,Bicarbonate (CaCO3)	mg/L	262	34.7	145	354
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0	<2.0	<2.0	<2.0
Aluminum, Total	ug/L	991	<200	<200	<200
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	1.8	2.7	1.8	<1.0
Barium, Total	ug/L	68.7	45.3	25.4	24.5
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	8520	18200	16800	4440
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	428000	594000	570000	440000
Chloride	mg/L	119	106	100	47.4
Chromium, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Cobalt, Total	ug/L	<1.0	<1.0	3.5	<1.0
Dissolved Organic Carbon	mg/L	<1.0	<1.0	2.4	<1.0
Fluoride	mg/L	<0.10	0.15	<0.10	<0.10
Iron, Ferrous	mg/L	3.5	0.74	<0.20	<0.20
Iron, Total	ug/L	12300	3910	241	215
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Total	ug/L	<20.0	64.6	<20.0	<20.0
Magnesium, Total	ug/L	57800	4240	39700	48800
Manganese, Dissolved	ug/L	8860	736	2550	539
Manganese, Total	ug/L	9020	742	2820	377
Mercury	ug/L	<2.0	<2.0	<2.0	<2.0
Molybdenum, Dissolved	ug/L	15.3	1820	173	<10.0
Molybdenum, Total	ug/L	15.0	1920	190	<10.0
Nitrogen, Nitrate	mg/L	<0.10	<0.10	0.13	3.6
Nitrogen, Nitrite	mg/L	<0.10	<0.10	<0.10	<0.10
pH at 25 Degrees C	Std. Units	7.6	7.3	7.5	7.2
Phosphate as P04	mg/L	2.0	0.61	<0.15	0.27
Potassium, Total	ug/L	2600	43300	15100	7290
Radium-226	pCi/L	0.375	<0.607	0.267	<0.901
Radium-228	pCi/L	0.624	1.06	0.809	<0.72
Selenium, Total	ug/L	<1.0	<1.0	<1.0	2.3
Silica, Total	ug/L	22800	8130	11800	14500
Sodium, Total	ug/L	49800	48100	37000	36800
Sulfate	mg/L	976	1700	1500	1050
Sulfide	mg/L	<0.10	<0.10	<0.10	<0.10
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	1820	2370	2200	1740
Total Organic Carbon	mg/L	<1.0	<1.0	2.2	<1.0
Total Radium	pCi/L	0.999	1.23	1.08	<1.62

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		AP-3A	AP-4A	AP-4I	AP-4B
Sample Date		5/8/2021	5/8/2021	5/8/2021	5/10/2021
Lab ID		50287048005	50287048006	50287048007	50287126001
Static Water Elevation (ft MSL)		411.99	411.58	411.57	411.62
Field Parameters	**Units**				
Temperature	°C	15.58	14.75	14.06	13.28
Dissolved Oxygen, Field	mg/L	0.24	0.07	1.41	5.55
Conductivity, Field	uS/cm	2942.4	3083.3	2766.7	971.53
ORP, Field	mV	-88.5	-67.1	26.3	68.6
pH, Field	Std. Units	7.24	7.02	7.12	6.62
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	54.7	148	98.1	362
Alkalinity,Bicarbonate (CaCO3)	mg/L	54.7	148	98.1	362
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0	<2.0	<2.0	<2.0
Aluminum, Total	ug/L	<200	<200	<200	<200
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	1.2	<1.0	<1.0	<1.0
Barium, Total	ug/L	35.2	31	26.1	100
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	27200	21200	13100	515
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	694000	627000	644000	165000
Chloride	mg/L	159	133	103	16.4
Chromium, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Cobalt, Total	ug/L	<1.0	<1.0	1.9	<1.0
Dissolved Organic Carbon	mg/L	<2.0	<1.0	<1.0	<1.0
Fluoride	mg/L	<0.10	<0.10	0.16	<0.10
Iron, Ferrous	mg/L	3.9	5.6	<0.20	<0.20
Iron, Total	ug/L	6720	8440	858	189
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Total	ug/L	<20.0	36.6	<20.0	<20.0
Magnesium, Total	ug/L	19400	93500	23900	34400
Manganese, Dissolved	ug/L	2470	2570	3990	<10
Manganese, Total	ug/L	2540	2640	4010	<10
Mercury	ug/L	<2.0	<2.0	<2.0	<2.0
Molybdenum, Dissolved	ug/L	632	209	105	<10.0
Molybdenum, Total	ug/L	645	222	101	<10.0
Nitrogen, Nitrate	mg/L	<0.10	<0.10	<0.10	10.4
Nitrogen, Nitrite	mg/L	<0.10	<0.10	<0.10	<1.0
pH at 25 Degrees C	Std. Units	7.1	7.4	7.3	7.0
Phosphate as P04	mg/L	0.20	0.26	<0.15	<0.15
Potassium, Total	ug/L	16000	17200	8900	<1000
Radium-226	pCi/L	0.795	0.484	<0.836	0.18
Radium-228	pCi/L	0.976	0.568	0.609	0.87
Selenium, Total	ug/L	<1.0	<1.0	<1.0	16.7
Silica, Total	ug/L	11700	11800	9990	10300
Sodium, Total	ug/L	51400	59300	38400	10600
Sulfate	mg/L	1720	1860	1790	121
Sulfide	mg/L	<0.10	<0.10	<0.10	<0.10
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	2740	2760	2540	599
Total Organic Carbon	mg/L	1.5	<1.0	<1.0	<1.0
Total Radium	pCi/L	1.77	1.05	0.832	1.05

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		AP-5	AP-5A	AP-6A	AP-6B
Sample Date		5/10/2021	5/10/2021	5/10/2021	5/10/2021
Lab ID		50287126002	50287126003	50287126004	50287126005
Static Water Elevation (ft MSL)		413.03	412.60	413.42	413.46
Field Parameters	**Units**				
Temperature	°C	14.7	15.36	15.05	13.79
Dissolved Oxygen, Field	mg/L	0.51	0.87	0.15	0.98
Conductivity, Field	uS/cm	1102.7	2668.3	2130.5	1595.7
ORP, Field	mV	90.1	-4.2	-64.9	-10.8
pH, Field	Std. Units	7.05	6.99	6.91	6.9
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	280	104	314	253
Alkalinity,Bicarbonate (CaCO3)	mg/L	280	104	314	253
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0	<2.0	<2.0	<2.0
Aluminum, Total	ug/L	<200	644	<200	<200
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	<1.0	1.2	1.8	<1.0
Barium, Total	ug/L	15.7	33.5	31.2	36.5
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	3290	15000	7250	1260
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	233000	652000	395000	292000
Chloride	mg/L	18.2	52.8	29.7	24.2
Chromium, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Cobalt, Total	ug/L	1.5	1.0	<1.0	<1.0
Dissolved Organic Carbon	mg/L	<1.0	<1.0	<1.0	<1.0
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10
Iron, Ferrous	mg/L	<0.20	5.8	3.6	<0.20
Iron, Total	ug/L	240	13600	18700	111
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Total	ug/L	<20.0	<20.0	<20.0	<20.0
Magnesium, Total	ug/L	28700	39100	96700	60500
Manganese, Dissolved	ug/L	528	1860	1210	<10.0
Manganese, Total	ug/L	1170	1930	1350	<10.0
Mercury	ug/L	<2.0	<2.0	<2.0	<2.0
Molybdenum, Dissolved	ug/L	71.4	224	<10.0	<10.0
Molybdenum, Total	ug/L	72.1	234	<10.0	<10.0
Nitrogen, Nitrate	mg/L	3.4	<0.10	<0.10	2.7
Nitrogen, Nitrite	mg/L	<0.10	<0.10	<0.10	<0.10
pH at 25 Degrees C	Std. Units	7.7	7.1	7.0	7.1
Phosphate as P04	mg/L	<0.15	0.62	0.8	<0.15
Potassium, Total	ug/L	7740	4290	2920	<1000
Radium-226	pCi/L	<0.941	<0.518	<0.532	<0.901
Radium-228	pCi/L	0.595	<1.09	0.536	0.577
Selenium, Total	ug/L	3.0	<1.0	<1.0	<1.0
Silica, Total	ug/L	12300	16400	13800	13000
Sodium, Total	ug/L	13600	59200	20100	19500
Sulfate	mg/L	457	2030	864	685
Sulfide	mg/L	<0.10	<0.10	<0.10	<0.10
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	980	2480	1810	1280
Total Organic Carbon	mg/L	<1.0	<1.0	<1.0	<1.0
Total Radium	pCi/L	<1.88	<1.61	<1.41	<1.78

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		AP-7	AP-8	AP-9A	AP-10A
Sample Date		5/8/2021	5/7/2021	5/11/2021	5/10/2021
Lab ID		50287048008	50287016001	50287228001	50287134001
Static Water Elevation (ft MSL)		423.60	438.58	436.83	422.41
Field Parameters	**Units**				
Temperature	°C	12.87	14.07	18.29	13.22
Dissolved Oxygen, Field	mg/L	0.34	0.07	0.22	0.14
Conductivity, Field	uS/cm	1405.2	1370.7	2972.9	2775
ORP, Field	mV	-41.1	136.6	-116.3	-79.8
pH, Field	Std. Units	6.65	4.58	7.31	7.31
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	496	11.4	52.9	52.2
Alkalinity,Bicarbonate (CaCO3)	mg/L	496	11.4	52.9	52.2
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0	<2.0	<2.0	<2.0
Aluminum, Total	ug/L	<200	1760	<200	<200
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	1.9	4	<1.0	<1.0
Barium, Total	ug/L	79.5	15.1	42.1	33.5
Beryllium, Total	ug/L	<0.20	6.5	<0.20	<0.20
Boron, Total	ug/L	236	510	32200	29200
Cadmium, Total	ug/L	<2.0	10.5	<2.0	<2.0
Calcium, Total	ug/L	213000	150000	748000	698000
Chloride	mg/L	4.8	11.7	143	142
Chromium, Total	ug/L	<10.0	<10.0	NA	NA
Cobalt, Total	ug/L	<1.0	677	<1.0	<1.0
Dissolved Organic Carbon	mg/L	1.0	2.7	<1.0	1.4
Fluoride	mg/L	0.12	1.6	0.15	<0.10
Iron, Ferrous	mg/L	10.8	66.5	4.4	3.9
Iron, Total	ug/L	36100	99100	6210	7490
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Total	ug/L	<20.0	74.3	<200	<20.0
Magnesium, Total	ug/L	65900	50200	17600	8840
Manganese, Dissolved	ug/L	1360	9300	1590	2370
Manganese, Total	ug/L	1330	10400	1660	2380
Mercury	ug/L	<2.0	<2.0	NA	NA
Molybdenum, Dissolved	ug/L	<10.0	<10.0	2030	742
Molybdenum, Total	ug/L	<10.0	<10.0	2130	758
Nitrogen, Nitrate	mg/L	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	<0.10	<0.10	<0.10	<0.10
pH at 25 Degrees C	Std. Units	7.0	5.2	7.0	8.3
Phosphate as P04	mg/L	0.7	<0.15	0.46	0.21
Potassium, Total	ug/L	2650	3440	37000	16100
Radium-226	pCi/L	0.334	<0.816	<0.812	0.572
Radium-228	pCi/L	<0.67	1.17	0.747	0.767
Selenium, Total	ug/L	<1.0	4.2	<1.0	<1.0
Silica, Total	ug/L	27300	48200	13500	11500
Sodium, Total	ug/L	11500	11600	47400	55600
Sulfate	mg/L	293	778	1680	1570
Sulfide	mg/L	<0.10	<0.10	<0.10	<0.10
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	930	1200	2820	2600
Total Organic Carbon	mg/L	<1.0	2.3	<1.0	1.4
Total Radium	pCi/L	0.675	1.33	0.977	1.34

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-2R	MW-3	MW-4C	MW-19A
Sample Date		5/5/2021	5/5/2021	5/5/2021	5/11/2021
Lab ID		50286944001	50286944002	50286944003	50287228002
Static Water Elevation (ft MSL)		440.83	440.97	448.89	413.79
Field Parameters	**Units**				
Temperature	°C	14.01	16.41	14.25	16.14
Dissolved Oxygen, Field	mg/L	0.15	0.17	1.06	0.57
Conductivity, Field	uS/cm	2960.1	2468.9	2491.9	2565.5
ORP, Field	mV	-27	89.1	55.1	-48.3
pH, Field	Std. Units	6.85	7.21	6.79	7.05
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	124	74.9	309	99
Alkalinity,Bicarbonate (CaCO3)	mg/L	124	74.9	309	99
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0	<2.0	<2.0	<2.0
Aluminum, Total	ug/L	<200	<200	<200	<200
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	6.2	17	<1.0	1.1
Barium, Total	ug/L	44.6	37.3	28.6	35.3
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	1900	1270	3620	24000
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	552000	481000	571000	638000
Chloride	mg/L	90.8	55.7	42.8	108
Chromium, Total	ug/L	<10.0	<10.0	<10.0	NA
Cobalt, Total	ug/L	2.9	2.1	1.2	<1.0
Dissolved Organic Carbon	mg/L	<1.0	<1.0	1.7	<1.0
Fluoride	mg/L	<0.10	0.14	<0.10	<0.10
Iron, Ferrous	mg/L	<0.20	<0.20	<0.20	6.2
Iron, Total	ug/L	8420	<100	<100	9460
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Total	ug/L	890	1820	359	<20.0
Magnesium, Total	ug/L	55400	7360	55700	27200
Manganese, Dissolved	ug/L	6810	907	2150	1760
Manganese, Total	ug/L	6600	913	1900	1830
Mercury	ug/L	<2.0	<2.0	<2.0	NA
Molybdenum, Dissolved	ug/L	10.8	519	<10.0	890
Molybdenum, Total	ug/L	10.3	532	<10.0	921
Nitrogen, Nitrate	mg/L	<0.10	<0.10	6.6	0.22
Nitrogen, Nitrite	mg/L	<0.10	<0.10	<0.2	<0.10
pH at 25 Degrees C	Std. Units	7.6	7.5	6.8	7.0
Phosphate as P04	mg/L	0.25	0.16	<0.15	0.2
Potassium, Total	ug/L	96600	253000	52800	12600
Radium-226	pCi/L	<0.946	1.24	<0.967	<0.745
Radium-228	pCi/L	1.52	1.27	2.07	0.745
Selenium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Silica, Total	ug/L	15700	8620	19300	12500
Sodium, Total	ug/L	133000	105000	89600	45400
Sulfate	mg/L	1760	1590	1430	1450
Sulfide	mg/L	<0.10	<0.10	<0.10	<0.10
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	2580	2230	2250	2350
Total Organic Carbon	mg/L	<1.0	<1.0	1.3	<1.0
Total Radium	pCi/L	1.59	2.51	2.09	<1.72

Notes:
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uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-19I	MW-19B	MW-20A	MW-20I
Sample Date		5/11/2021	5/11/2021	5/10/2021	5/10/2021
Lab ID		50287228003	50287228004	50287134002	50287134003
Static Water Elevation (ft MSL)		413.75	413.56	424.23	424.00
Field Parameters	**Units**				
Temperature	°C	14.43	13.75	13.57	13.25
Dissolved Oxygen, Field	mg/L	0.13	4.93	0.56	0.13
Conductivity, Field	uS/cm	677.89	543	1900.2	668.64
ORP, Field	mV	-32.5	7.8	-79.7	-28
pH, Field	Std. Units	7.19	7.3	7.14	7.07
Analytical Data					
Alkalinity, Total as CaCO3	mg/L	284	220	176	316
Alkalinity,Bicarbonate (CaCO3)	mg/L	284	220	176	316
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0	<2.0	<2.0	<2.0
Aluminum, Total	ug/L	<200	<200	293	<200
Antimony, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Arsenic, Total	ug/L	<1.0	<1.0	1.8	<1.0
Barium, Total	ug/L	59.6	51.5	38.4	57.9
Beryllium, Total	ug/L	<0.20	<0.20	<0.20	<0.20
Boron, Total	ug/L	1020	576	16200	265
Cadmium, Total	ug/L	<2.0	<2.0	<2.0	<2.0
Calcium, Total	ug/L	110000	87200	454000	113000
Chloride	mg/L	11.5	11.2	73.1	6.6
Chromium, Total	ug/L	NA	NA	NA	NA
Cobalt, Total	ug/L	<1.0	<1.0	<1.0	1.1
Dissolved Organic Carbon	mg/L	<1.0	<1.0	<1.0	<1.0
Fluoride	mg/L	<0.10	0.14	<0.10	<0.10
Iron, Ferrous	mg/L	<0.20	<0.20	2.5	<0.20
Iron, Total	ug/L	<100	<100	9030	<100
Lead, Total	ug/L	<10.0	<10.0	<10.0	<10.0
Lithium, Total	ug/L	<20.0	<20.0	<20.0	<20.0
Magnesium, Total	ug/L	25300	17700	34000	24400
Manganese, Dissolved	ug/L	1640	<10.0	1520	1700
Manganese, Total	ug/L	1860	<10.0	1490	1700
Mercury	ug/L	NA	NA	NA	NA
Molybdenum, Dissolved	ug/L	<10.0	<10.0	488	<10.0
Molybdenum, Total	ug/L	<10.0	<10.0	436	<10.0
Nitrogen, Nitrate	mg/L	0.12	4.6	<0.10	1.5
Nitrogen, Nitrite	mg/L	<0.10	<0.10	<0.10	<0.10
pH at 25 Degrees C	Std. Units	7.4	7.5	7.5	7.3
Phosphate as P04	mg/L	<0.15	<0.15	0.53	0.18
Potassium, Total	ug/L	<1000	2070	6150	<1000
Radium-226	pCi/L	<0.46	<1.05	0.262	<0.944
Radium-228	pCi/L	0.803	<1.08	1.52	<0.824
Selenium, Total	ug/L	<1.0	2.1	<1.0	1.5
Silica, Total	ug/L	8670	8760	13300	11000
Sodium, Total	ug/L	7580	8460	33000	4580
Sulfate	mg/L	79	41.5	1050	29.5
Sulfide	mg/L	<0.10	<0.10	<0.10	<0.10
Thallium, Total	ug/L	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	439	345	1530	402
Total Organic Carbon	mg/L	<1.0	<1.0	<1.0	<1.0
Total Radium	pCi/L	0.952	<2.13	1.78	<1.77

Notes:
ft MSL: Elevation, feet mean sea level
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uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-20B
Sample Date		5/10/2021
Lab ID		50287134004
Static Water Elevation (ft MSL)		423.97
Field Parameters	**Units**	
Temperature	°C	12.16
Dissolved Oxygen, Field	mg/L	0.44
Conductivity, Field	uS/cm	984.98
ORP, Field	mV	7.2
pH, Field	Std. Units	6.73
Analytical Data		
Alkalinity, Total as CaCO3	mg/L	458
Alkalinity,Bicarbonate (CaCO3)	mg/L	458
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0
Aluminum, Total	ug/L	374
Antimony, Total	ug/L	<1.0
Arsenic, Total	ug/L	<1.0
Barium, Total	ug/L	116
Beryllium, Total	ug/L	<0.20
Boron, Total	ug/L	576
Cadmium, Total	ug/L	<2.0
Calcium, Total	ug/L	180000
Chloride	mg/L	13.4
Chromium, Total	ug/L	NA
Cobalt, Total	ug/L	<1.0
Dissolved Organic Carbon	mg/L	<1.0
Fluoride	mg/L	<0.10
Iron, Ferrous	mg/L	<0.20
Iron, Total	ug/L	380
Lead, Total	ug/L	<10.0
Lithium, Total	ug/L	<20.0
Magnesium, Total	ug/L	27000
Manganese, Dissolved	ug/L	21.1
Manganese, Total	ug/L	33.4
Mercury	ug/L	NA
Molybdenum, Dissolved	ug/L	<10.0
Molybdenum, Total	ug/L	<10.0
Nitrogen, Nitrate	mg/L	4.9
Nitrogen, Nitrite	mg/L	<0.10
pH at 25 Degrees C	Std. Units	7.0
Phosphate as P04	mg/L	0.37
Potassium, Total	ug/L	<1000
Radium-226	pCi/L	<0.846
Radium-228	pCi/L	1.16
Selenium, Total	ug/L	6.9
Silica, Total	ug/L	14300
Sodium, Total	ug/L	11000
Sulfate	mg/L	73.2
Sulfide	mg/L	<0.10
Thallium, Total	ug/L	<1.0
Total Dissolved Solids	mg/L	631
Total Organic Carbon	mg/L	<1.0
Total Radium	pCi/L	1.16

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
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Table 7
Summary of Monitoring Results - May 2021 Groundwater Profiling Locations
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		GWP-1AI	GWP-1AS	GWP-1D	GWP-2D	GWP-2I	GWP-2S	GWP-3AI	GWP-3AS	GWP-3D	GWP-4D	GWP-4I	GWP-4S
Sample Date		5/15/2021	5/15/2021	5/14/2021	5/18/2021	5/18/2021	5/17/2021	5/14/2021	5/14/2021	5/13/2021	5/17/2021	5/17/2021	5/17/2021
Lab ID		50287861002	50287861001	50287861003	50287861006	50287861005	50287861004	50287861008	50287861007	50287861009	50287861012	50287861011	50287861010
Static Water Elevation (ft MSL)		412.7	412.1	413.6	413.1	411.6	411.7	412.4	410.7	412.4	411.6	411.8	407.9
Field Parameters	**Units**												
Temperature	°C	20.35	17.07	18.22	18.77	18.55	17.49	18.09	17.65	19.73	19.99	19.55	18.73
Dissolved Oxygen, Field	mg/L	0.06	5.15	0.26	0.02	0.21	1.80	0.19	0.17	0.17	0.09	0.09	0.10
Conductivity, Field	uS/cm	1561.4	650.72	2577.7	2423.0	2438.6	901.14	2692.9	843.90	2840.5	2588.3	2661.4	776.5
ORP, Field	mV	5.0	10.4	20.0	-123.2	-15.0	-72.5	-28.1	-34.7	-102.8	-148.7	-72.7	5.6
pH, Field	Std. Units	6.58	6.72	6.81	6.84	6.75	6.65	6.89	6.83	7.15	7.10	6.95	6.80
Analytical Data													
Lithium, Dissolved	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Lithium, Total	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Molybdenum, Dissolved	ug/L	<1.0	1.1	1.6	54.2	103	<1.0	46.5	<1.0	1580	95.4	34.4	1.8
Molybdenum, Total	ug/L	1.4	1.4	2.5	54.9	103	1.4	49.4	2.1	1560	94.1	37.2	1.6

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not Analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter

Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 7
Summary of Monitoring Results - May 2021 Groundwater Profiling Locations
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID	GWP-5AI	GWP-5AS	GWP-5D	GWP-6D	GWP-6I	GWP-6S	GWP-7AI	GWP-7AS	GWP-7D
Sample Date	5/13/2021	5/13/2021	5/12/2021	5/16/2021	5/16/2021	5/16/2021	5/12/2021	5/12/2021	5/11/2021
Lab ID	50287861014	50287861013	50287861015	50287861018	50287861017	50287861016	50287861020	50287861019	50287861021
Static Water Elevation (ft MSL)	412.5	411.7	412.2	412.1	412.5	404.6	411.2	408.1	412.4
Field Parameters									
Temperature	18.72	15.65	18.62	18.92	18.30	16.38	18.52	15.74	18.14
Dissolved Oxygen, Field	0.08	0.05	0.43	0.00	0.15	2.05	0.36	0.92	0.70
Conductivity, Field	2407.5	835.4	2538.6	2776.7	2710.3	612.22	2593.3	920.69	2747.2
ORP, Field	-16.4	-31.8	-111.3	-62.6	55.1	79.3	-51.6	-0.9	110.9
pH, Field	6.76	7.00	7.06	6.97	6.91	6.96	6.82	7.01	6.96
Analytical Data									
Lithium, Dissolved	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Lithium, Total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Molybdenum, Dissolved	27.9	<1.0	278	299	44.6	1.2	52.2	<1.0	851
Molybdenum, Total	16.2	1.3	273	300	44.1	2.5	38.9	3.6	882

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not Analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter

Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 8
Summary of Monitoring Results - August 2021 Groundwater Profiling Locations
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		GWP-8AI	GWP-8AS	GWP-8D	GWP-10D	GWP-10AI	GWP-10AS	GWP-9D	GWP-9AS	GWP-9AI
Sample Date		8/12/2021	8/12/2021	8/12/2021	8/18/2021	8/18/2021	8/18/2021	8/16/2021	8/17/2021	8/17/2021
Lab ID		50295161002	50295161003	50295161001	50295782001	50295782002	50295782003	50295782004	50295782005	50295782006
Static Water Elevation (ft MSL)		431.6	431.6	411.6	Not Available	-21.9	-17.9	-20.5	Not Available	Not Available
Field Parameters	**Units**									
Temperature	°C	21.4	15.04	21.04	19.90	20.77	16.63	19.65	19.28	20.15
Dissolved Oxygen, Field	mg/L	1.17	0.00	1.26	1.32	0.77	1.58	1.19	0.92	0.75
Conductivity, Field	uS/cm	931.91	729.06	2386.2	2110.0	850	930	2100	740	830
ORP, Field	mV	84.7	77.7	210.2	-96.8	-10.5	24.9	100.8	-91.3	-63.8
pH, Field	Std. Units	6.98	6.85	6.33	7.30	7.25	6.85	7.25	7.13	7.39
Analytical Data										
Lithium, Dissolved	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Lithium, Total	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Molybdenum, Dissolved	ug/L	1.2	<1.0	366	370	16.1	<1.0	284	<1.0	4.9
Molybdenum, Total	ug/L	1.3	<1.0	330	286	13.9	1.9	286	<1.0	4.8

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not Analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter

Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 9
Summary of Monitoring Results - September 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-20A	MW-20B	MW-20I	MW-25A	MW-25B
Sample Date		9/16/2021	9/16/2021	9/16/2021	9/15/2021	9/15/2021
Lab ID		50297657001	50297657002	50297657003	50297445003	50297445001
Static Water Elevation (ft MSL)		406.29	401.12	405.55	405.17	404.98
Field Parameters	**Units**					
Temperature	°C	16.93	14.85	14.34	16.85	16.12
Dissolved Oxygen, Field	mg/L	0.05	0.15	52.1	0.06	0.04
Conductivity, Field	uS/cm	1642.00	1056.0	453.16	2131.5	1011.0
ORP, Field	mV	-156.2	82.7	52.1	-206.6	-38.8
pH, Field	Std. Units	7.35	6.83	7.16	7.71	7.13
Analytical Data						
Alkalinity, Total as CaCO3	mg/L	168	446	375	135	331
Alkalinity,Bicarbonate (CaCO3)	mg/L	168	446	375	135	331
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0
Aluminum	ug/L	865	1680	207	<200	<200
Antimony	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	ug/L	2.7	1.1	<1.0	1.2	<1.0
Barium	ug/L	45.1	119	51.4	51.5	55.6
Beryllium	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20
Boron	ug/L	18300	1230	470	13900	3350
Boron, Dissolved	ug/L	18100	1190	443	14300	3160
Cadmium	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0
Calcium	ug/L	492000	213000	133000	554000	224000
Chloride	mg/L	82.0	35.4	11.7	43.4	17.0
Cobalt	ug/L	2.0	2.0	2.2	2.1	1.7
Dissolved Organic Carbon	mg/L	1.6	1.6	<1.0	6.6	1.2
Fluoride	mg/L	<0.10	<0.10	0.13	0.12	<0.10
Iron	ug/L	9940	2060	488	22300	752
Lead	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0
Lithium	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0
Lithium, Dissolved	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0
Magnesium	ug/L	28400	33100	27600	73200	36400
Manganese	ug/L	1540	301	2390	2300	1160
Manganese, Dissolved	ug/L	1460	36.1	2230	2140	1030
Molybdenum	ug/L	656	<10.0	<10.0	13.0	<10.0
Molybdenum, Dissolved	ug/L	662	<10.0	<10.0	12.8	<10.0
Nitrogen, Nitrate	mg/L	<0.10	1.5	1.8	<0.10	3.2
Nitrogen, Nitrite	mg/L	<0.10	<0.10	<0.10	<0.10	<0.20
pH at 25 Degrees C	Std. Units	7.2	7.0	7.2	7.0	7.0
Phosphate as P04	mg/L	0.34	<0.15	<0.15	<0.15	<0.15
Potassium	ug/L	7380	1200	<1000	3970	1200
Radium-226	pCi/L	<0.883	<0.995	0.561	<0.922	<0.692
Radium-228	pCi/L	1.22	<0.790	0.628	0.597	<1.04
Selenium	ug/L	1.4	1.1	1.4	<1.0	1.3
Silica	ug/L	16400	19700	12500	15400	15200
Sodium	ug/L	34800	21600	7330	22900	10200
Sulfate	mg/L	1080	180	51.5	1430	318
Sulfide	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Thallium	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	2020	788	482	2400	896
Total Organic Carbon	mg/L	1.4	1.3	NA - container broke at lab	6.5	<1.0
Total Radium	pCi/L	<1.28	<1.79	1.19	<1.66	<1.73

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not Analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 9
Summary of Monitoring Results - September 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-25I	MW-26A	MW-26B	MW-26I	MW-27B
Sample Date		9/15/2021	9/16/2021	9/16/2021	9/16/2021	9/17/2021
Lab ID		50297445002	50297657006	50297657004	50297657005	50297657007
Static Water Elevation (ft MSL)		405.07	404.48	404.54	404.51	403.78
Field Parameters	**Units**					
Temperature	°C	16.08	16.18	15.45	15.44	18.81
Dissolved Oxygen, Field	mg/L	0.06	3.46	2.00	0.07	0.04
Conductivity, Field	uS/cm	2231.7	1949.3	957.04	1137.0	1704.1
ORP, Field	mV	-215.0	-131.1	1.1	-177.0	-168.5
pH, Field	Std. Units	7.35	7.52	7.10	7.28	7.15
Analytical Data						
Alkalinity, Total as CaCO3	mg/L	168	111	450	379	708
Alkalinity,Bicarbonate (CaCO3)	mg/L	168	111	450	379	708
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0
Aluminum	ug/L	410	<200	<200	<200	266
Antimony	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	ug/L	1.1	<1.0	<1.0	1.5	34.9
Barium	ug/L	43.9	36.4	56.8	106	466
Beryllium	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20
Boron	ug/L	18600	19100	1330	5660	7870
Boron, Dissolved	ug/L	18500	18900	1390	6040	7840
Cadmium	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0
Calcium	ug/L	570000	442000	162000	241000	251000
Chloride	mg/L	59.7	85.4	20.5	49.0	138
Cobalt	ug/L	1.2	1.0	3.2	1.6	1.0
Dissolved Organic Carbon	mg/L	1.4	2.3	1.1	2.2	13.5
Fluoride	mg/L	<0.10	0.10	0.13	0.12	0.15
Iron	ug/L	16900	8250	337	8740	32500
Lead	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0
Lithium	ug/L	<20.0	24.7	20.6	49.7	<20.0
Lithium, Dissolved	ug/L	<20.0	<20.0	<20.0	47.0	<20.0
Magnesium	ug/L	73000	25900	35400	39100	71800
Manganese	ug/L	1740	1700	1480	2080	1290
Manganese, Dissolved	ug/L	1600	1690	1560	2060	1310
Molybdenum	ug/L	16.0	806	<10.0	52.2	<10.0
Molybdenum, Dissolved	ug/L	14.9	812	<10.0	64.7	<10.0
Nitrogen, Nitrate	mg/L	<0.50	<0.10	3.0	<0.10	<0.10
Nitrogen, Nitrite	mg/L	<0.50	<0.10	<0.10	<0.10	<0.10
pH at 25 Degrees C	Std. Units	7.0	7.2	7.0	7.3	7.0
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	<0.15	5.9
Potassium	ug/L	3440	9540	2780	9960	3880
Radium-226	pCi/L	<0.857	<1.06	<1.11	<1.11	1.69
Radium-228	pCi/L	0.677	1.25	1.47	1.58	1.96
Selenium	ug/L	<1.0	<1.0	11.3	<1.0	<1.0
Silica	ug/L	13900	11300	13300	15600	29600
Sodium	ug/L	24100	28600	14900	29200	75500
Sulfate	mg/L	1480	1100	116	359	167
Sulfide	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Thallium	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	2490	1860	665	994	1200
Total Organic Carbon	mg/L	1.4	2.4	1.1	2.0	14.5
Total Radium	pCi/L	0.82	1.32	1.47	1.84	3.65

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not Analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 9
Summary of Monitoring Results - September 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-28A	MW-28B	MW-28I	MW-29A	MW-29B
Sample Date		9/17/2021	9/17/2021	9/17/2021	9/15/2021	9/15/2021
Lab ID		50297675001	50297675002	50297675003	50297445005	50297445004
Static Water Elevation (ft MSL)		404.9	404.91	404.72	404.98	405.01
Field Parameters	**Units**					
Temperature	°C	16.31	17.43	16.57	15.51	15.47
Dissolved Oxygen, Field	mg/L	0.11	7.66	0.04	0.02	0.71
Conductivity, Field	uS/cm	2561.8	1131.5	2523.7	1418.5	602.73
ORP, Field	mV	-204.5	-58.8	-255.8	-239.7	-9.3
pH, Field	Std. Units	7.84	7.48	8.23	7.36	7.28
Analytical Data						
Alkalinity, Total as CaCO3	mg/L	44.1	422	47.0	244	323
Alkalinity,Bicarbonate (CaCO3)	mg/L	44.1	422	47.0	244	323
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0
Aluminum	ug/L	<200	<200	<200	<200	303
Antimony	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	ug/L	1.3	<1.0	1.1	<1.0	<1.0
Barium	ug/L	40.4	59.4	68.5	48.6	71.9
Beryllium	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20
Boron	ug/L	26600	3930	25500	7840	274
Boron, Dissolved	ug/L	26100	4050	25100	7980	293
Cadmium	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0
Calcium	ug/L	595000	268000	604000	294000	119000
Chloride	mg/L	119	55.3	117	4.1	10.1
Cobalt	ug/L	1.2	4.9	1.5	<1.0	2.2
Dissolved Organic Carbon	mg/L	1.6	2.1	4.2	1.5	<1.0
Fluoride	mg/L	0.12	0.18	0.11	<0.10	0.10
Iron	ug/L	8520	619	7690	8480	785
Lead	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0
Lithium	ug/L	<20.0	41.4	<20.0	<20.0	<20.0
Lithium, Dissolved	ug/L	<20.0	41.4	<20.0	<20.0	<20.0
Magnesium	ug/L	9860	27800	13900	42300	23200
Manganese	ug/L	1970	1520	1900	1420	1910
Manganese, Dissolved	ug/L	1950	1560	1880	1400	1810
Molybdenum	ug/L	2990	211	1610	89.1	<10.0
Molybdenum, Dissolved	ug/L	2990	224	1660	91.1	<10.0
Nitrogen, Nitrate	mg/L	<0.10	<0.10	<0.10	<0.10	1.8
Nitrogen, Nitrite	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
pH at 25 Degrees C	Std. Units	7.1	7.3	7.0	7.1	7.2
Phosphate as P04	mg/L	0.17	<0.15	<0.15	0.28	<0.15
Potassium	ug/L	39600	13000	37100	2580	<1000
Radium-226	pCi/L	<0.966	<0.987	1.22	1.13	0.311
Radium-228	pCi/L	1.01	<1.02	<0.892	<0.757	1.27
Selenium	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0
Silica	ug/L	11600	13900	11300	12200	12700
Sodium	ug/L	32300	41300	32700	20700	5560
Sulfate	mg/L	1490	354	1350	61.9	40.8
Sulfide	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Thallium	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	2600	1090	2540	1260	419
Total Organic Carbon	mg/L	1.6	1.4	3.4	1.5	<1.0
Total Radium	pCi/L	1.01	<2.01	1.64	1.33	1.58

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not Analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 9
Summary of Monitoring Results - September 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Well ID		MW-29I
Sample Date		9/16/2021
Lab ID		50297657008
Static Water Elevation (ft MSL)		405.31
Field Parameters	**Units**	
Temperature	°C	14.03
Dissolved Oxygen, Field	mg/L	1.13
Conductivity, Field	uS/cm	816.33
ORP, Field	mV	-165.7
pH, Field	Std. Units	7.44
Analytical Data		
Alkalinity, Total as CaCO3	mg/L	285
Alkalinity,Bicarbonate (CaCO3)	mg/L	285
Alkalinity,Carbonate (CaCO3)	mg/L	<2.0
Aluminum	ug/L	<200
Antimony	ug/L	<1.0
Arsenic	ug/L	<1.0
Barium	ug/L	85.7
Beryllium	ug/L	<0.20
Boron	ug/L	1750
Boron, Dissolved	ug/L	1710
Cadmium	ug/L	<2.0
Calcium	ug/L	140000
Chloride	mg/L	15.7
Cobalt	ug/L	<1.0
Dissolved Organic Carbon	mg/L	<1.0
Fluoride	mg/L	0.12
Iron	ug/L	8310
Lead	ug/L	<10.0
Lithium	ug/L	<20.0
Lithium, Dissolved	ug/L	<20.0
Magnesium	ug/L	32300
Manganese	ug/L	1230
Manganese, Dissolved	ug/L	1220
Molybdenum	ug/L	<10.0
Molybdenum, Dissolved	ug/L	<10.0
Nitrogen, Nitrate	mg/L	<0.10
Nitrogen, Nitrite	mg/L	<0.10
pH at 25 Degrees C	Std. Units	7.2
Phosphate as P04	mg/L	0.17
Potassium	ug/L	1090
Radium-226	pCi/L	0.597
Radium-228	pCi/L	1.35
Selenium	ug/L	<1.0
Silica	ug/L	11500
Sodium	ug/L	7250
Sulfate	mg/L	190
Sulfide	mg/L	<0.10
Thallium	ug/L	<1.0
Total Dissolved Solids	mg/L	582
Total Organic Carbon	mg/L	1.1
Total Radium	pCi/L	1.95

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
NA: Not Analyzed
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 10A
Groundwater Protection Standards - November 2020
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Parameter	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
GWPS	6	20.5	2000	4	5	100	6	4	47.8	2808.9	2	660	50	2	5

Notes:
ug/L = micrograms per liter (ppb)
mg/L = milligrams per liter (ppm)
pCi/L = picoCuries per liter
GWPS = Groundwater Protection Standard

Table 10B
Groundwater Protection Standards - May 2021
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATC Project No. 170LF01113

Parameter	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
GWPS	6	20.5	2000	4	5	100	6	4	47.8	2787.1	2	660	50	2	5

Notes:
ug/L = micrograms per liter (ppb)
mg/L = milligrams per liter (ppm)
pCi/L = picoCuries per liter
GWPS = Groundwater Protection Standard