HALEY ALDRICH

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ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
ASH POND
A.B. BROWN GENERATING STATION
POSEY COUNTY, INDIANA

by
Haley & Aldrich, Inc.
Greenville, South Carolina

for
Southern Indiana Gas and Electric Company
Evansville, Indiana

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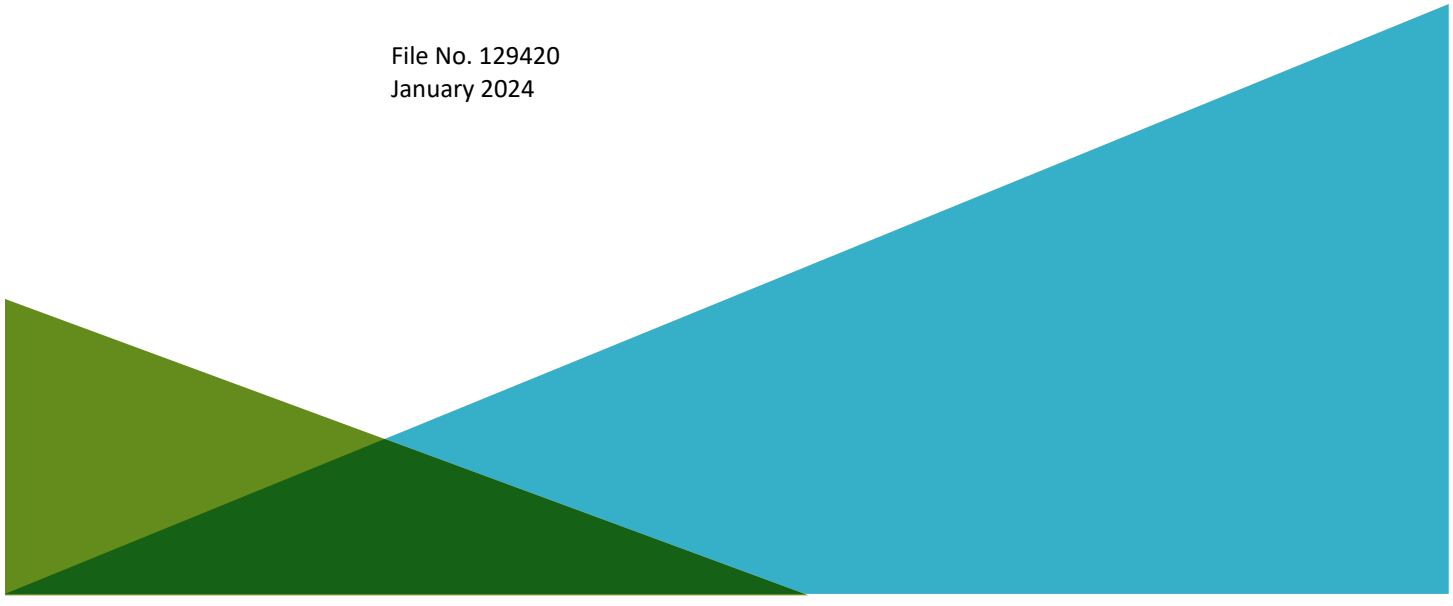

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1. Annual Groundwater Monitoring Report Summary

1.1 CODE OF FEDERAL REGULATIONS TITLE 40 (40 CFR) § 257.90(e)(6) SUMMARY

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 [coal combustion residual] CCR unit. At a minimum, the summary must specify all of the following.

1.1.1 40 CFR § 257.90(e)(6)(i) – Status of Monitoring Program at start of reporting period

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.

At the start of the current annual reporting period (1 January 2023), the Ash Pond at A.B. Brown Generating Station (ABB) was operating under an assessment monitoring program in compliance with Code of Federal Regulations Title 40 (40 CFR) § 257.95.

1.1.2 40 CFR § 257.90(e)(6)(ii) – Status of Monitoring Program at End of Reporting Period

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.

At the end of the current annual reporting period (31 December 2023), the Ash Pond was operating under an assessment monitoring program in compliance with 40 CFR § 257.95.

1.1.3 40 CFR § 257.90(e)(6)(iii) – Statistically Significant Increases

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).

1.1.3.1 40 CFR § 257.90(e)(6)(iii)(A)

Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase.

The Ash Pond is operating under an assessment monitoring program; therefore, no statistical evaluations were conducted on Appendix III constituents in 2023.

1.1.3.2 40 CFR § 257.90(e)(6)(iii)(B)

Provide the date when the assessment monitoring program was initiated for the CCR unit.

An assessment monitoring program was established on 15 August 2018 for the Ash Pond to meet the requirements of 40 CFR § 257.95. The Ash Pond has remained in assessment monitoring since that time.

1.1.4 40 CFR § 257.90(e)(6)(iv) – Statistically Significant Levels

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.

1.1.4.1 40 CFR § 257.90(e)(6)(iv)(A) – Statistically Significant Level Constituents

Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase.

Statistical analyses of appendix IV constituents were completed in 2023 following the November 2022 and May 2023 semiannual assessment monitoring sampling events as described in § 257.93(h)(2) and statistically significant levels (SSL) of lithium (CCR-AP-3R) and molybdenum (CCR-AP-2R and CCR-AP-3R) were identified downgradient of the Ash Pond. A summary of statistical analysis is provided in Appendix A.

1.1.4.2 40 CFR § 257.90(e)(6)(iv)(B) – Initiation of the Assessment of Corrective Measures

Provide the date when the assessment of corrective measures was initiated for the CCR unit.

Assessment of corrective measures was initiated on 15 May 2019 for the Ash Pond.

1.1.4.3 40 CFR § 257.90(e)(6)(iv)(C) – Assessment of Corrective Measures Public Meeting

Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.

The public was given the opportunity to comment on the assessment of corrective measures prepared for the Ash Pond during a public meeting held on 18 October 2021.

1.1.4.4 40 CFR § 257.90(e)(6)(iv)(D) – Completion of the Assessment of Corrective Measures

Provide the date when the assessment of corrective measures was completed for the CCR unit.

The assessment of corrective measures was completed on 13 September 2019 and placed into the facility's operating record, followed by being posted to the facility's publicly available website, and notification sent to the state agency.

1.1.5 40 CFR § 257.90(e)(6)(v) – Selection of Remedy

Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection.

The selection of remedy required under § 257.97 was ongoing in 2023 for molybdenum and lithium at the Ash Pond. A summary of actions completed associated with selection of remedy are provided in the March 2023 and September 2023 Semi-Annual Remedy Selection Progress Reports. Field investigations

to evaluate the suitability of a remedial alternative began in November 2022 and continued into the 2023 reporting period. Field efforts included the installation of 16 groundwater monitoring wells (Table 1), aquifer parameter testing, and groundwater geochemistry analysis. Field investigations concluded in August 2023 and information collected is being used to evaluate the suitability of the alternative remedy, as well as updating the groundwater conceptual model for the Ash Pond.

1.1.6 40 CFR § 257.90(e)(6)(vi) – Remedial Activities

Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

Source removal for the purpose of beneficial reuse is underway and source removal is anticipated to be part of the remedy, however the selection of remedy has not yet been completed due to ongoing work to analyze remedial activities for site suitability. Remedial activities were not initiated in 2023; therefore, no demonstration or certification is applicable for this unit.

1.2 40 CFR § 257.90(a)

Except as provided for in § 257.100 for inactive CCR surface impoundments, all CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under § 257.90 through § 257.98.

The Ash Pond at ABB is subject to the groundwater monitoring and corrective action requirements described under 40 CFR § 257.90 through § 257.98 (the Rule). The remainder of this document addresses the specific requirement for the Owner/Operator to prepare an Annual Groundwater Monitoring and Corrective Action Report per § 257.90(e).

1.3 40 CFR § 257.90(e) – SUMMARY

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, 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).

This 2023 Annual Groundwater Monitoring and Corrective Action Report documents the activities completed in 2023 for the Ash Pond as required by the Rule. Semiannual groundwater sampling and analysis was conducted per the requirements described in § 257.93, and the status of the groundwater

monitoring program described in § 257.95 is provided in this report. Field forms for the groundwater sampling events are provided in Appendix B. Laboratory analytical reports are provided in Appendix C.

1.3.1 Status of the Groundwater Monitoring Program

Following the completion of the Assessment of Corrective Measures in September 2019, a semiannual groundwater sampling plan was implemented to satisfy requirements of § 257.95(b) and 257.95(d)(1). Groundwater samples were collected from monitoring wells at the Ash Pond from 9 to 11 May 2023 and again from 7 to 9 November 2023.

Statistical analysis of Appendix IV constituents collected during the November 2022 sampling event was completed on 13 March 2023, within 90-days following the receipt of laboratory analytical results on 9 December 2022, per the requirements of § 257.93(h)(2). Statistical analysis of Appendix IV constituents collected during the May 2023 sampling event was completed on 25 September 2023, within 90-days following the receipt of laboratory analytical results on 27 June 2023, per the requirements of § 257.93(h)(2). Statistical analysis of Appendix IV constituents collected during the November 2023 sampling event will be completed within the 2024 reporting period and will therefore be included in the 2024 annual report.

Statistical analysis of Appendix IV constituents during the 2023 reporting period determined that SSLs of lithium and molybdenum remain downgradient of the Ash Pond, which is consistent with previous findings. The selection of remedy process required under § 257.97 continued, as discussed in Section 1.1.5, during the 2023 reporting period.

1.3.2 Key Actions Completed

The following key actions were completed in 2023:

- 5 to 14 January 2023 – Completed installation of 12 additional corrective measures assessment (CMA) series monitoring wells downgradient of the Ash Pond and collected soil samples for laboratory analysis as part of a remedy technology assessment.
- 24 January 2023 – Completed hydraulic testing of new CMA series monitoring wells using slug tests and a pumping test to refine aquifer parameter estimates downgradient of the Ash Pond for evaluation of remedy alternatives and to inform pond closure and corrective measures design.
- 24 January 2023 to 10 February 2023 – Collected groundwater samples from CMA series monitoring wells at the Ash Pond for laboratory analysis as part of the remedy technology assessment.
- 31 January 2023 – Prepared 2022 Annual Groundwater Monitoring and Corrective Action Report (2022 Annual Report) including:
  - Pursuant to § 257.105(h)(1), the 2022 Annual Report was placed in the facility's operating record on 31 January 2023;
  - Pursuant to § 257.106(h)(1), the notification was sent to the relevant State Director and/or Tribal authority within 30 days of the 2022 Annual Report being placed in the facility's operating record [§ 257.106(d)];
  - Pursuant to § 257.107(h)(1), the 2022 Annual Report was posted to the CCR Website within 30 days of the 2022 Annual Report being placed in the facility's operating record [§ 257.107(d) and 257.107(h)(1)].

- 13 March 2023 – Completed statistical analysis of November 2022 assessment monitoring laboratory analytical results received on 13 December 2022.
- 15 March 2023 – Prepared semiannual selection of remedy progress report in accordance with § 257.97(a) to document progress. The semiannual progress report was placed in the operating record as required by § 257.105(h)(12) and posted on the facility's publicly available website as required by § 257.107(h)(9).
- 28 March 2023 to 1 April 2023 – Collected groundwater samples from CMA series monitoring wells at the Ash Pond for laboratory analysis as part of the remedy technology assessment.
- 8 May 2023 – Measured static water levels in groundwater monitoring wells at the site before beginning the May 2023 sampling event and again immediately prior to collecting each sample to evaluate groundwater flow direction and rate per the requirements of § 257.93(c).
- 9 to 11 May 2023 – Collected groundwater samples from monitoring wells at the Ash Pond for laboratory analysis in accordance with § 257.95.
- 14 September 2023 – Prepared semiannual selection of remedy progress report in accordance with § 257.97(a) to document progress. The semiannual progress report was placed in the operating record as required by § 257.105(h)(12) and posted on the facility's publicly available website as required by § 257.107(h)(9).
- 25 September 2023 – Completed statistical analysis of May 2023 assessment monitoring laboratory analytical results received on 27 June 2023.
- 6 November 2023 – Measured static water levels in groundwater monitoring wells at the site before beginning the November 2023 sampling event and again immediately prior to collecting each sample to evaluate groundwater flow direction and rate per the requirements of § 257.93(c).
- 7 to 9 November 2023 – Collected groundwater samples from monitoring wells at the Ash Pond for laboratory analysis in accordance with § 257.95.

1.3.3 Problems Encountered

Problems encountered during the May 2023 and November 2023 sampling events include:

- Following the May 2023 sampling event and prior to the November 2023 sampling event, monitoring well CCR-AP-9 was damaged during site construction activities.

1.3.4 Actions to Resolve Problems

Actions taken to resolve problems encountered include:

- Monitoring well CCR-AP-9 was inspected and determined to be intact; therefore, the surface completion was repaired, and the monitoring well was re-developed to return to service in the downgradient monitoring well network at the Ash Pond prior to the November 2023 semiannual sampling.

1.3.5 Project Key Activities for Upcoming Year

Key activities to be completed in 2024 include the following:

- Continue semiannual groundwater monitoring in accordance with § 257.95.

- Complete statistical analysis of the semiannual groundwater sampling results within 90-days of sampling and analysis as required by § 257.93(h)(2).
- As soon as feasible select a remedy that, at a minimum, meets the standards outlined in § 257.97(b) and considers the evaluation factors in § 257.97(c).
- As part of the selected remedy the Southern Indiana Gas and Electric Company will develop a schedule for implementing and completing remedial activities as defined in § 257.97(d).
- Prepare semiannual and annual progress reports, as necessary, describing the progress in selecting and designing the remedy as outlined in § 257.97(a).
- Following remedy selection initiate remedial activities and implement the corrective action groundwater monitoring program as outlined in § 257.98.

1.4 40 CFR § 257.90(e) – INFORMATION

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

1.4.1 40 CFR § 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.

As required by § 257.90(e)(1), a map showing the locations of the Ash Pond and associated upgradient, downgradient and nature and extent monitoring wells is presented on Figure 1. Groundwater elevation contours for the May 2023 sampling event are presented on Figure 2. Groundwater elevation contours created for the November 2023 sampling event are presented on Figure 3.

1.4.2 40 CFR § 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.

Twelve additional monitoring wells were installed as part of the remedy technology assessment between 5 to 14 January 2023. Location and construction details of the existing monitoring well network for the Ash Pond is provided for reference in Table 1. Soil samples were collected for laboratory analysis during installation of the CMA series monitoring wells at the Ash Pond from 5 to 14 January 2023, results are provided in Table 2. Groundwater quality samples were also collected from CMA series monitoring wells at the Ash Pond for laboratory analysis as part of the remedy technology assessment from 24 January 2023 to 10 February 2023 and again from 28 March 2023 to 1 April 2023 and results are provided in Table 3.

- Monitoring well CMA-07 was determined to have been installed improperly and was subsequently properly abandoned with notification to state agency provided in Appendix D.

1.4.3 40 CFR § 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.

In accordance with § 257.95(b) and § 257.95(d)(1), two independent samples from each background and downgradient monitoring well were collected and analyzed. A summary table including the sample names, dates of sample collection, reason for sample collection (detection or assessment), and monitoring data obtained for the groundwater monitoring program for the Ash Pond is presented in Table 4.

1.4.4 40 CFR § 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).

Statistical analysis of Appendix IV constituents was completed for the November 2022 and May 2023 sampling events as described in § 257.93(h)(2) and demonstrate that lithium and molybdenum continue to be the only constituents at SSLs to be observed downgradient of the Ash Pond, consistent with previous results. As a result, the monitoring program did not change, and the Ash Pond remained in assessment monitoring throughout 2023. Statistical analysis for the November 2023 sampling event is ongoing and will be completed within 90-days after sampling and analysis to determine if a statistically significant increase over background has occurred.

1.4.5 40 CFR § 257.90(e)(5)

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

Other information including development of groundwater protection standards, recording of groundwater monitoring results in the operating record, and an evaluation of alternate sources was discussed in prior annual reports.

TABLES

TABLE 1
GROUNDWATER MONITORING WELL LOCATION AND CONSTRUCTION DETAILS
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Well	Date Installed	Easting	Northing	Top of Pad Elevation (ft NAVD88)	Top of Riser Elevation (ft NAVD88)	Surface Grout (ft bgs)	Bentonite (ft bgs)	Sand Pack (ft bgs)	Screen Zone (ft bgs)	Screen Length (ft)	Well Radius (in)	Bottom of Well Elevation (ft NAVD88)	Status
Background Wells													
CCR-BK-1R	March 2016	2770919.08	974083.40	480.10	483.39	2.0 - 50.0	50.0 - 52.0	52.0 - 64.0	54.00 - 64.00	10	2	416.10	Active
CCR-BK-2	March 2016	2769728.14	972854.33	427.50	430.60	1.0 - 11.5	11.5 - 13.5	13.5 - 25.5	15.50 - 25.50	10	2	402.00	Active
Ash Pond Wells													
CCR-AP-1R	July 2016	2773560.69	968260.66	464.70	467.57	0.0 - 23.0	23.0 - 25.0	25.0 - 37.0	27.00 - 37.00	10	2	427.70	Active
CCR-AP-2R	July 2016	2771922.6	969079.86	465.40	468.13	0.0 - 39.0	39.0 - 41.0	41.0 - 53.0	43.30 - 53.30	10	2	412.10	Active
CCR-AP-2IR	March 2021	2771920	969076.29	465.80	465.79	1.0 - 42.0	43.0 - 49.00	49.00 -51.70	51.70 - 61.70	10	2	404.10	Active
CCR-AP-3R	July 2016	2771404.36	966865.11	450.10	449.13	0.0 - 33.0	33.0 - 35.0	35.0 - 47.0	37.00 - 47.00	10	2	403.10	Active
CCR-AP-3I	January 2019	318653.79	146643.51	450.35	450.35	0.0 - 63.5	63.5 - 67.5	67.5 - 77.8	67.50 - 77.50	10	2	372.85	Active
CCR-AP-4R	July 2016	2772827.89	966741.38	472.80	475.38	2.0 - 34.0	34.0 - 36.0	36.0 - 48.0	38.00 - 48.00	10	2	424.80	Active
CCR-AP-5R	March 2016	2771019.65	968165.74	453.20	453.14	1.0 - 31.0	31.0 - 33.0	33.0 - 45.0	35.00 - 45.00	10	2	408.20	Active
CCR-AP-6	March 2016	2771626.75	969932.76	458.90	461.57	1.0 - 25.0	25.0 - 27.0	27.0 - 39.0	29.00 - 39.00	10	2	419.90	Active
CCR-AP-7R	July 2016	2773501.83	970758.52	486.00	488.57	2.0 - 39.5	39.5 - 41.5	41.5 - 53.5	43.50 - 53.50	10	2	432.50	Active
CCR-AP-8	January 2019	317746.04	149793.38	413.97	417.17	0.0 - 2.0	2.0 - 4.2	4.2 - 16.5	6.20 - 16.20	10	2	397.77	Active
CCR-AP-9	January 2019	316940.53	147282.73	391.47		0.0 - 19.5	19.5 - 22.5	22.5 - 35.5	25.20 - 35.20	10	2	356.27	Active
CCR-AP-10	January 2019	319549.96	146467.58	474.34	474.34	0.0 - 29.2	29.2 - 31.2	31.2 - 43.5	33.20 - 43.20	10	2	431.14	Active
CCR-AP-11	May 2020	2768459.21	967930.60	373.64	376.72	0.0 - 12.0	12.0 - 14.0	14.0 - 26.0	16.00 - 26.00	10	2	347.64	Active
Ash Pond Piezometers													
HA-PP-1*	May 2020	2769934.70	967323.16	381.12	381.82	NA	NA	NA	2.50 - 3.50	1	1	377.62	Active
HA-PP-2*	May 2020	2769922.20	967290.63	380.87	381.51	NA	NA	NA	2.50 - 3.50	1	1	377.37	Active
French Drain Piezometers													
FD-PZ-1	May 2020	2771101.58	968746.38	418.94	418.94	0.0 - 9.5	9.5 - 11.5	11.5 - 13.5	13.50 - 18.50	5	1	400.44	Active
FD-PZ-2	May 2020	2771272.40	969128.98	423.37	423.34	0.0 - 20.0	20.0 - 22.0	22.0 - 34.0	24.00 - 34.00	10	1	389.37	Active
FD-PZ-3S	March 2021	2771178.58	968663.70	420.45	420.09	1.0 - 6.0	6.0 - 8.0	8.0 - 19.6	9.60 - 19.60	10	2	400.85	Active
FD-PZ-3D	March 2021	2771181.92	968659.62	420.67	420.30	1.0 - 20.0	20.0 - 22.0	22.0 - 34.0	24.00 - 34.00	10	2	386.67	Active
FD-PZ-4	March 2021	2771055.46	968516.03	419.74	419.19	1.0 - 8.0	8.0 - 10.0	10.0 - 23.0	13.00 - 23.00	10	2	396.74	Active
Corrective Measures Assessment Wells													
CMA-01	Decmber 2022	2771009.92	967939.00	443.22	445.87	2.0 - 28.7	28.7 - 32.7	32.7 - 34.7	34.70 - 44.70	10	2	398.52	Active
CMA-01I	Decmber 2022	2771020.79	967939.76	443.31	446.25	2.0 - 53.7	53.7 - 57.7	57.5 - 59.7	59.70 - 69.70	10	2	373.61	Active
CMA-02	Decmber 2022	2771004.85	967737.70	433.93	436.63	2.0 - 33.7	33.7 - 37.7	37.7 - 39.7	39.70 - 49.70	10	2	384.23	Active
CMA-02I	Decmber 2022	2771015.91	967740.54	434.21	436.51	2.0 - 58.7	58.7 - 62.7	62.7 - 64.7	64.70 - 74.70	10	2	359.51	Active
CMA-03	January 2023	2771041.44	967512.14	433.42	436.29	2.0 - 33.7	33.7 - 37.7	37.7 - 39.7	39.70 - 49.70	10	2	383.72	Active
CMA-03I	January 2023	2771050.68	967514.24	433.65	436.16	2.0 - 58.7	58.7 - 62.7	62.7 - 64.7	64.70 - 74.70	10	2	358.95	Active
CMA-04	January 2023	2771134.33	967261.67	433.26	435.89	2.0 - 28.7	28.7 - 32.7	32.7 - 34.7	34.70 - 44.70	10	4	388.56	Active
CMA-04BR	January 2023	2771152.36	967265.33	433.92	436.54	2.0 - 88.7	88.7 - 92.7	92.7 - 94.7	94.70 - 104.70	10	2	329.22	Active
CMA-04I	January 2023	2771143.74	967263.70	433.68	436.21	2.0 - 58.7	58.7 - 62.7	62.7 - 64.7	64.70 - 74.70	10	2	358.98	Active
CMA-05	January 2023	2771204.87	967013.33	433.39	436.26	2.0 - 23.7	23.7 - 27.7	27.7 - 29.7	29.70 - 39.70	10	2	393.69	Active
CMA-05I	January 2023	2771212.82	967015.68	433.53	436.52	2.0 - 48.7	48.7 - 52.7	52.7 - 54.7	54.70 - 64.70	10	2	368.83	Active
CMA-06	January 2023	2770645.10	967341.25	392.44	392.08	2.0 - 18.7	18.7 - 22.7	22.7 - 24.7	24.70 - 34.70	10	2	357.74	Active
CMA-06BR	January 2023	2770627.68	967336.58	392.77	392.44	2.0 - 63.7	63.7 - 67.7	67.7 - 69.7	69.7 - 79.7	10	2	313.07	Active
CMA-06I	January 2023	2770636.07	967338.68	392.40	392.22	2.0 - 43.7	43.7 - 47.7	47.7 - 49.7	49.7 - 59.7	10	2	332.70	Active
CMA-07I	January 2023	2770926.86	967090.66	417.02	419.95	2.0 - 28.7	28.7 - 32.7	32.7 - 34.7	34.7 - 44.7	10	2	372.32	Active
CMA-08I	January 2023	2770962.81	966864.34	440.74	443.25	2.0 - 33.7	33.7 - 37.7	37.7 - 39.7	39.7 - 49.7	10	2	391.04	Active

Notes and Abbreviations:

bgs: below ground surface
ft: feet
in: inches
NA: not available
Datum of Elevations is NAVD 88

TABLE 2
SUMMARY OF SUPPLEMENTARY SOIL QUALITY DATA
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Location Group	Ash Pond									
Location Name	CMA-01I	CMA-02	CMA-02I	CMA-03	CMA-03I	CMA-04	CMA-04I	CMA-05	CMA-05I	CMA-06
Sample Name	CMA-01I-(60-62')-120122-1235	CMA-02-(40-42')-121422-1525	CMA-02I-(65-67')-120822-1350	CMA-03-(40-42')-010523-1630	CMA-03I-(65-67')-010523-1120	CMA-04-(35-37')-010923-1020	CMA-04I-(65-67')-0120823-0955	CMA-05-(30-32')-011023-1440	CMA-05I-(55-57')-011023-0905	CMA-06-(25-27')-011323-1655
Sample Date	12/01/2022	12/14/2022	12/08/2022	01/05/2023	01/05/2023	01/09/2023	01/08/2023	01/10/2023	01/10/2023	01/13/2023
Lab Sample ID	680-228085-1	680-228085-3	680-228085-2	680-229218-2	680-229218-1	680-229218-4	680-229218-3	680-229218-6	680-229218-5	680-229218-10
Sample Depth (bgs)	60 - 62 (ft)	40 - 42 (ft)	65 - 67 (ft)	40 - 42 (ft)	65 - 67 (ft)	35 - 37 (ft)	65 - 67 (ft)	30 - 32 (ft)	55 - 57 (ft)	25 - 27 (ft)
Inorganic Compounds (mg/kg)										
Aluminum	**8800**	**11000**	**13000**	**7400**	**7700**	**6900**	**6700**	**7200**	**11000**	**12000**
Boron	11 U	14 U	12 U	11 U	14 U	14 U	12 U	13 U	13 U	16 U
Calcium	**1800**	**13000**	**4600**	**890 J-**	**31000 J-**	**34000 J-**	**27000 J-**	**29000 J-**	**2100 J-**	**1800 J-**
Iron	**24000**	**23000**	**47000**	**17000**	**15000**	**17000**	**13000**	**14000**	**28000**	**31000**
Lithium	**13**	**14**	**16**	**9.3**	**19**	**18**	**17**	**18**	**19**	**12**
Manganese	**530**	**490**	**2500**	**210 J-**	**150 J-**	**420 J-**	**160 J-**	**340 J-**	**440 J-**	**260 J-**
Molybdenum	**1.4**	**1.8**	1.2 U	1.1 U	1.4 U	**1.6**	**1.8**	1.3 U	1.3 U	1.6 U

Notes and Abbreviations:
mg/kg: milligram per kilogram
ft: feet
J: Value is estimated
J-: Value is estimated, biased low
U: not detected, value is the reporting limit

TABLE 2
SUMMARY OF SUPPLEMENTARY SOIL QUALITY DA1
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Location Group	Ash Pond			
Location Name	**CMA-06I**	**CMA-06I**	**CMA-07I**	**CMA-08I**
Sample Name	**CMA-06I-(50-52')-011323-1400**	**9584-011323-0800**	**CMA-07I-(35-37')-011223-0935**	**CMA-08I-(40-42')-011223-1555**
Sample Date	**01/13/2023**	**01/13/2023**	**01/12/2023**	**01/11/2023**
Lab Sample ID	**680-229218-9**	**680-229218-11**	**680-229218-8**	**680-229218-7**
Sample Depth (bgs)	**50 - 52 (ft)**	**50 - 52 (ft)**	**35 - 37 (ft)**	**40 - 42 (ft)**
Inorganic Compounds (mg/kg)				
Aluminum	**9300**	**9200**	**15000**	**12000**
Boron	12 U	13 U	13 U	13 U
Calcium	**7300 J-**	**7800 J-**	**6300 J-**	**1900 J-**
Iron	**14000**	**18000**	**21000**	**29000**
Lithium	**17**	**16**	**16**	**21**
Manganese	**140 J-**	**260 J-**	**430 J-**	**400 J-**
Molybdenum	1.2 U	1.3 U	1.3 U	1.3 U

Notes and Abbreviations:
mg/kg: milligram per kilogram
ft: feet
J: Value is estimated
J-: Value is estimated, biased low
U: not detected, value is the reporting limit

TABLE 3
SUMMARY OF SUPPLEMENTARY GROUNDWATER QUALITY DATA
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Location Group	Action Level	Ash Pond													
Location Name		CCR-AP-2IR	CCR-AP-2IR	CCR-AP-2IR	CCR-AP-2R	CCR-AP-2R	CCR-AP-3I	CCR-AP-3I	CCR-AP-3R	CCR-AP-3R	CCR-AP-4R	CCR-AP-4R	CCR-AP-5R	CCR-AP-5R	CCR-AP-9
Sample Name	Groundwater Protection Standard	CCR-AP-2IR-012523-1440	CCR-AP-2IR-032923	9583-032923-0001	CCR-AP-2R-012523-1605	CCR-AP-2R-032823	CCR-AP-3I-012523-1200	CCR-AP-3I-032523	CCR-AP-3R-012523-1045	CCR-AP-3R-033023	CCR-AP-4R-012623-1005	CCR-AP-4R-040123	CCR-AP-5R-013023-1335	CCR-AP-5R-032823	CCR-AP-9-012423-1600
Sample Date		01/25/2023	03/29/2023	03/29/2023	01/25/2023	03/28/2023	01/25/2023	03/28/2023	01/25/2023	03/30/2023	01/26/2023	04/01/2023	01/30/2023	03/28/2023	01/24/2023
Lab Sample ID		180-151174-4	180-154350-1	180-154350-2	180-151174-5	180-154274-3	180-151174-3	180-154274-1	180-151174-2	180-154405-3	180-151174-6	180-154512-3	180-151450-6	180-154274-2	180-151174-1
Inorganic Compounds, Dissolved (mg/L)															
Antimony, Dissolved	0.006	**0.001 J**	-	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U
Arsenic, Dissolved	0.01	**0.00078 J**	-	-	**0.00064 J**	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	**0.0094**
Barium, Dissolved	2	**0.11**	-	-	**0.043**	-	**0.16**	-	**0.019**	-	**0.047**	-	**0.023**	-	**0.079**
Beryllium, Dissolved	0.004	0.001 U	-	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U
Boron, Dissolved	NA	**1.9**	-	-	**14**	-	**2**	-	**13**	-	**0.12**	-	**12**	-	**7**
Cadmium, Dissolved	0.005	0.001 U	-	-	**0.00026 J**	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U
Calcium, Dissolved	NA	**9.8**	-	-	**460**	-	**15**	-	**410**	-	**120**	-	**470**	-	**500**
Chromium, Dissolved	0.1	0.002 U	-	-	0.002 U	-	0.002 U	-	0.002 U	-	**0.0022**	-	**0.0022**	-	0.002 U
Cobalt, Dissolved	0.006	0.0005 U	-	-	**0.0041**	-	0.0005 U	-	**0.00063**	-	0.0005 U	-	0.0005 U	-	**0.0003 J**
Iron, Dissolved	NA	**0.095**	0.1 U	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	**0.064**	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	**36**
Lead, Dissolved	0.015	0.001 U	-	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U
Lithium, Dissolved	0.04	**0.022**	-	-	**0.03**	-	**0.023**	-	0.075	-	0.005 U	-	**0.014**	-	**0.034**
Manganese, Dissolved	NA	**0.017**	**0.012**	**0.013**	**3.4**	**3.5**	**0.012**	0.01 U	**0.042**	**0.012**	**0.0018 J**	0.01 U	**0.22**	**0.24**	**3.2**
Molybdenum, Dissolved	0.1	**0.0019 J**	-	-	1.8	-	**0.00073 J**	-	**0.77**	-	**0.0014 J**	-	**0.096**	-	**0.011**
Selenium, Dissolved	0.05	0.005 U	-	-	0.005 U	-	0.005 U	-	**0.0013 J**	-	0.005 U	-	0.005 U	-	0.005 U
Thallium, Dissolved	0.002	0.001 U	-	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U
Inorganic Compounds, Total (mg/L)															
Antimony, Total	0.006	**0.0025**	**0.00099 J**	**0.0011 J**	0.002 U	0.002 U	0.002 U	**0.00081 J**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic, Total	0.01	**0.0016**	**0.00087 J**	0.005 U	**0.0035**	**0.003 J**	**0.0011**	**0.0014 J**	0.001 U	0.005 U	**0.0022**	0.005 U	**0.00042 J**	0.005 U	0.019
Barium, Total	2	**0.17**	**0.094**	**0.095**	**0.082**	**0.057**	**0.21**	**0.17**	**0.02**	**0.022**	**0.078**	**0.044**	**0.023**	**0.018**	**0.079**
Beryllium, Total	0.004	**0.00038 J**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.0003 J**	0.001 U	0.001 U	0.001 U	0.001 U
Boron, Total	NA	**1.9**	**1.9**	**2**	**14**	**14**	**2.1**	**2.1**	**14**	**14**	**0.15**	**0.11**	**12**	**15**	**8**
Cadmium, Total	0.005	0.001 U	0.001 U	0.001 U	**0.00027 J**	**0.00056 J**	0.001 U	0.001 U	0.001 U	**0.00035 J**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Calcium, Total	NA	**14**	-	-	**460**	-	**20**	-	**440**	-	**120**	-	**450**	-	**450**
Chromium, Total	0.1	**0.021**	**0.0029 J**	**0.0038 J**	**0.015**	**0.0061**	**0.01**	**0.0039 J**	0.002 U	0.005 U	**0.052**	0.005 U	**0.0019 J**	0.005 U	**0.0035**
Cobalt, Total	0.006	**0.0047**	**0.00074 J**	**0.00075 J**	0.0076	0.0061	**0.0026**	**0.0014**	**0.00058**	**0.00055 J**	0.0069	**0.00029 J**	**0.00043 J**	**0.00024 J**	**0.0013**
Lead, Total	0.015	**0.009**	**0.00074 J**	**0.00077 J**	**0.005**	**0.0029**	**0.0037**	**0.0018**	0.001 U	0.001 U	**0.0056**	0.001 U	**0.00057 J**	0.001 U	**0.002**
Lithium, Total	0.04	**0.029**	**0.019**	**0.019**	**0.034**	**0.026**	**0.027**	**0.025**	0.079	**0.07**	**0.0017 J**	0.008 U	**0.014**	**0.011**	**0.036**
Magnesium, Total	NA	-	-	-	-	-	-	-	-	**43**	-	-	-	-	-
Mercury, Total	0.002	0.0002 U	0.0002 U	0.0002 U	**0.00038**	0.0002 U	0.0002 U	0.0002 U	0.0002 U	**0.0003**	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum, Total	0.1	**0.0007 J**	0.005 U	0.005 U	1.8	1.6	0.005 U	**0.0016 J**	0.83	0.68	**0.002 J**	**0.0014 J**	**0.09**	0.13	**0.012**
Phosphate, Total	NA	-	-	-	-	-	-	-	-	0.31 U	-	-	-	-	-
Phosphorus	NA	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-
Potassium, Total	NA	-	-	-	-	-	-	-	-	**22**	-	-	-	-	-
Selenium, Total	0.05	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.0012 J**	**0.0035 J**	0.005 U	0.005 U	0.005 U	**0.001 J**	0.005 U
Sodium, Total	NA	-	-	-	-	-	-	-	-	**2100**	-	-	-	-	-
Thallium, Total	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.0005 J**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.00041 J**	0.001 U
Other															
Alkalinity, Bicarbonate (as CaCO3) (mg/L)	NA	**570**	**500**	**500**	**140**	**140**	**520**	**460**	**170**	**150**	**530**	**490**	**120**	**79**	**390**
Alkalinity, Total (as CaCO3) (mg/L)	NA	**570**	**500**	**500**	**140**	**140**	**530**	**480**	**170**	**150**	**530**	**490**	**120**	**79**	**390**
Chloride (mg/L)	NA	-	**90**	**91**	-	**530**	-	**150**	-	**790**	-	**7.7**	-	**490**	-
Fluoride (mg/L)	4	-	**1.1 B**	**1.1 B**	-	**0.42**	-	**1.6**	-	**0.93 B**	-	**0.42**	-	**0.37**	-
Sulfate (mg/L)	NA	-	**4.5**	**2.3**	-	**3200**	-	**12**	-	**4400**	-	**66**	-	**3500**	-
Total Dissolved Solids (TDS) (mg/L)	NA	-	**700**	**700**	-	**5700**	-	**820**	-	**8000**	-	**570**	**5300**	**6100**	-
pH (lab) (SU	NA	**8 J**	**8.1 HF**	**8.1 HF**	**7.1 J**	**7.4 HF**	**8.2 J**	**8.8 HF**	**7.3 J**	**7.5 HF**	**7.2 J**	**7.7 HF**	**7.2 J**	**8.1 HF**	**6.8 J**
Sulfide, Total (mg/L)	NA	3 UJ	3 Ucn	3 Ucn	3 UJ	3 Ucn	3 UJ	3 Ucn	3 UJ	3 Ucn	3 UJ	3 Ucn	3 UJ	3 U	3 UJ
Radiological (pCi/L)															
Radium-226	NA	**1.68 ± 0.356**	1 U ± 0.473	1 U ± 0.454	**0.822 ± 0.249**	1 U ± 0.475	**1.19 ± 0.285**	1 U ± 0.577	**0.095 ± 0.0607**	1 U ± 0.234	**0.328 ± 0.148**	1 U ± 0.24	**0.117 ± 0.0822**	1 U ± 0.225	**0.708 ± 0.205**
Radium-228	NA	**2.19 ± 0.836**	1 UG ± 0.894	1 UG ± 0.742	**1.73 ± 0.863**	1 UG ± 0.827	**1.59 ± 0.651**	1 UG ± 0.607	**0.739 ± 0.34**	1 U ± 0.38	1 U ± 0.58	1 U ± 0.43	1 U ± 0.456	1 U ± 0.38	**1.35 ± 0.689**
Radium-226 & 228	5	**3.87 ± 0.909**	5 U ± 1.01	5 U ± 0.87	**2.55 ± 0.898**	5 U ± 0.954	**2.78 ± 0.711**	5 U ± 0.837	**0.834 ± 0.345**	**0.725 ± 0.446**	5 UJ ± 0.599	5 U ± 0.492	5 UJ ± 0.463	5 U ± 0.442	**2.06 ± 0.719**

Notes and Abbreviations:

mg/L: milligram per liter.
cn: see case narative.
B: detected in the sample and the associated blank.
F1: matrix spike and/or matrix spike duplicate recovery exceeds control limits.
G: the sample minimum detectable concentration is greater than the requested reporting limit.
HF: field parameter with a holding time of 15 minutes.
U: not detected, value is the reporting limit.
J: value is estimated.
J+: value is estimated with a potential high bias.
R: value is rejected.
*Results in **bold** are detected.*
Shaded value indicates an exceedance of the Groundwater Protection Standard.
"-" Field parameters not measured during sampling due to limited available sample volume

TABLE 3
SUMMARY OF SUPPLEMENTARY GROUNDWATER QUALITY DATA
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Location Group	Action Level	Ash Pond														
Location Name		CCR-AP-9	CCR-AP-10	CCR-AP-10	CMA-01	CMA-01	CMA-01I	CMA-01I	CMA-02	CMA-02	CMA-02I	CMA-02I	CMA-03	CMA-03	CMA-03I	CMA-03I
Sample Name	Groundwater Protection Standard	CCR-AP-9-033123	CCR-AP-10-020623-0930	CCR-AP-10-040123	CMA-01-013023-1530	CMA-01-033023	CMA-01I-013023-1645	CMA-01I-033023	CMA-02-020123-945	CMA-02-033123	CMA-02I-020123-1145	CMA-02I-033123	CMA-03-020123-1430	CMA-03-033123	CMA-03I-020123-1645	CMA-03I-033123
Sample Date		03/31/2023	02/06/2023	04/01/2023	01/30/2023	03/30/2023	01/30/2023	03/30/2023	02/01/2023	03/31/2023	02/01/2023	03/31/2023	02/01/2023	03/31/2023	02/01/2023	03/31/2023
Lab Sample ID		180-154451-5	180-151869-7	180-154512-1	180-151450-5	180-154405-2	180-151450-4	180-154405-1	180-151450-2	180-154451-1	180-151450-1	180-154451-2	180-151450-3	180-154451-8	180-151450-7	180-154451-10
Inorganic Compounds, Dissolved (mg/L)																
Antimony, Dissolved	0.006	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	**0.003 J+**	-
Arsenic, Dissolved	0.01	-	0.001 U	-	**0.0038**	-	**0.00035 J**	-	**0.0057**	-	**0.013**	-	**0.017**	-	**0.0069**	-
Barium, Dissolved	2	-	**0.014**	-	**0.082**	-	**0.026**	-	**0.07**	-	**0.13**	-	**0.12**	-	**0.25**	-
Beryllium, Dissolved	0.004	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-
Boron, Dissolved	NA	-	**7.3**	-	**0.061 J**	-	**8**	-	**0.62**	-	**0.099**	-	0.08 U	-	**0.099**	-
Cadmium, Dissolved	0.005	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-
Calcium, Dissolved	NA	-	**210 J+**	-	**84**	-	**360**	-	**97**	-	**78**	-	**120**	-	**100**	-
Chromium, Dissolved	0.1	-	0.002 U	-	**0.0015 J**	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-
Cobalt, Dissolved	0.006	-	**0.00033 J**	-	**0.0024**	-	**0.00033 J**	-	**0.0022**	-	**0.00074**	-	**0.0027**	-	**0.0012**	-
Iron, Dissolved	NA	**36**	0.05 U	0.1 U	**0.42**	**1.6**	**0.14**	**0.076 J**	**1**	**11**	**3.2**	**3.8**	**10**	**15**	**6.7**	**13**
Lead, Dissolved	0.015	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-
Lithium, Dissolved	0.04	-	**0.0016 J**	-	**0.011**	-	**0.0085**	-	**0.074**	-	**0.013**	-	**0.019**	-	**0.069**	-
Manganese, Dissolved	NA	**2.6**	**0.02 J+**	**0.016**	**2.6**	**2.4**	**0.22**	**0.14**	**3.3**	**1.1**	**1.5**	**1.1**	**4.1**	**3.3**	**3.3**	**1.8**
Molybdenum, Dissolved	0.1	-	**0.0018 J**	-	**0.0049 J**	-	**0.28**	-	**0.008**	-	**0.015**	-	**0.012**	-	**0.01**	-
Selenium, Dissolved	0.05	-	**0.022**	-	0.005 U	-	0.005 U	-	0.005 U	-	**0.00074 J**	-	0.005 U	-	0.005 U	-
Thallium, Dissolved	0.002	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-
Inorganic Compounds, Total (mg/L)																
Antimony, Total	0.006	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.00066 J**	0.002 U	0.002 U	0.002 U	**0.0013 J**	0.002 U	**0.0018 J**	0.002 U	**0.00094 J**
Arsenic, Total	0.01	**0.013**	**0.0034**	0.005 U	**0.017**	**0.01**	**0.0005 J**	**0.00083 J**	**0.011**	**0.03**	**0.013**	**0.02**	**0.017**	**0.031**	**0.0079**	**0.014**
Barium, Total	2	**0.074**	**0.025**	**0.012**	**0.35**	**0.085**	**0.023**	**0.023**	**0.081**	**0.12**	**0.17**	**0.27**	**0.25**	**0.25**	**0.29**	**0.36**
Beryllium, Total	0.004	0.001 U	**0.00046 J**	0.001 U	**0.0019**	0.001 U	0.001 U	**0.0009 J**	0.001 U	0.001 U	**0.00031 J**	**0.001**	**0.00073 J**	0.001 U	**0.00028 J**	0.001 U
Boron, Total	NA	**8.5**	**7**	**6.7**	**0.084**	0.1 U	**7.2**	**8.2**	**0.54**	**0.73**	**0.1**	**0.087 J**	0.08 U	0.1 U	**0.12**	**0.084 J**
Cadmium, Total	0.005	0.001 U	0.001 U	0.001 U	**0.0014**	0.001 U	0.001 U	**0.00029 J**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Calcium, Total	NA	-	**220 J+**	-	**330**	-	**330**	-	**96**	-	**82**	-	**130**	-	**110**	-
Chromium, Total	0.1	0.005 U	**0.0068**	0.005 U	**0.016**	**0.0057**	0.002 U	0.005 U	**0.0017 J**	**0.0067**	**0.0054**	**0.03**	**0.0084**	**0.061**	**0.0047**	**0.0064**
Cobalt, Total	0.006	**0.00034 J**	**0.0037**	**0.00067 J**	**0.033**	**0.004**	**0.00063**	**0.00038 J**	**0.0028**	**0.0034**	**0.005**	**0.015**	**0.013**	**0.0078**	**0.0044**	**0.0032**
Lead, Total	0.015	0.001 U	**0.0037**	0.001 U	**0.063**	**0.0039**	**0.00058 J**	0.001 U	**0.0013**	**0.0031**	**0.0077**	**0.014**	**0.015**	**0.0067**	**0.0067**	**0.0026**
Lithium, Total	0.04	**0.028**	**0.0031 J**	0.008 U	**0.032**	**0.014**	**0.0073**	**0.0091**	**0.061**	**0.027**	**0.016**	**0.031**	**0.028**	**0.014**	**0.071**	**0.017**
Magnesium, Total	NA	-	-	-	-	-	-	**79**	-	-	-	-	-	-	-	-
Mercury, Total	0.002	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UF1	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum, Total	0.1	**0.011**	**0.0017 J**	**0.0019 J**	0.005 U	**0.005**	**0.26**	**0.25**	**0.004 J**	**0.013**	**0.0055**	**0.013**	**0.0012 J**	**0.016**	**0.0018 J**	**0.011**
Phosphate, Total	NA	-	-	-	-	-	-	0.31 U	-	-	-	-	-	-	-	-
Phosphorus	NA	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-
Potassium, Total	NA	-	-	-	-	-	-	**5.9**	-	-	-	-	-	-	-	-
Selenium, Total	0.05	0.005 U	**0.023**	**0.016**	0.005 U	0.005 U	0.005 U	**0.0015 J**	**0.00084 J**	0.005 U	**0.001 J**	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sodium, Total	NA	-	-	-	-	-	-	**710**	-	-	-	-	-	-	-	-
Thallium, Total	0.002	0.001 U	0.001 U	0.001 U	0.001 U	**0.00024 J**	0.001 U	**0.00075 J**	0.001 U	0.001 U	0.001 U	**0.00021 J**	0.001 U	0.001 U	0.001 U	0.001 U
Other																
Alkalinity, Bicarbonate (as CaCO3) (mg/L)	NA	**330**	**290**	**250**	**380**	**340**	**200**	**190**	**450**	**450**	**450**	**440**	**580**	**690**	**510**	**500**
Alkalinity, Total (as CaCO3) (mg/L)	NA	**330**	**290**	**250**	**380**	**340**	**200**	**190**	**450**	**450**	**450**	**440**	**580**	**690**	**510**	**500**
Chloride (mg/L)	NA	**880**	-	**100**	-	**15**	-	**310**	-	**18**	-	**4.8**	-	**16**	-	**5**
Fluoride (mg/L)	4	**0.29**	-	**0.46**	-	**0.2 B**	-	**0.35 B**	-	**0.3**	-	**0.33**	-	**0.47**	-	**0.15**
Sulfate (mg/L)	NA	**4200**	-	**1500**	-	**57**	-	**2200**	-	**57**	-	**4.9**	-	**13**	-	**5.4**
Total Dissolved Solids (TDS) (mg/L)	NA	**8200**	**2700**	**2800**	**440**	**460**	**4300**	**4000**	**620**	**560**	**440**	**450**	**680**	**700**	**480**	**510**
pH (lab) (SU	NA	**7 HF**	**7.2 J**	**7.4 HF**	**7.1 J**	**7.2 HF**	**7.1 J**	**7.2 HF**	**7.5 J**	**7.5 HF**	**7.4 J**	**7.5 HF**	**7.3 J**	**7.4 HF**	**7.3 J**	**7.3 HF**
Sulfide, Total (mg/L)	NA	3 U	3 UJ	3 Ucn	**1.4 J**	3 Ucn	3 UJ	3 U	3 UJ	3 U	3 UJ	3 U	3 UJ	3 U	3 UJ	3 U
Radiological (pCi/L)																
Radium-226	NA	**0.872 ± 0.413**	**0.239 ± 0.164**	1 U ± 0.148	**5.43 ± 1.03**	**1.16 ± 0.593**	1 U ± 0.0803	1 U ± 0.149	**0.422 ± 0.211**	1 UG ± 0.789	**0.565 ± 0.215**	1 UG ± 1.39	**1.65 ± 0.491**	1 UG ± 0.54	**0.496 ± 0.209**	**1.07 ± 0.675**
Radium-228	NA	1 U ± 0.451	**1.38 ± 0.757**	**0.92 ± 0.451**	**5.55 ± 2.45**	1 UG ± 0.66	**0.955 ± 0.483**	**0.599 ± 0.307**	**2.73 ± 1.34**	1 UG ± 1.25	1 U ± 0.879	1 UG ± 2.44	**3.49 ± 1.94**	1 UG ± 0.846	**1.81 ± 1.02**	**1.57 G G ± 0.948**
Radium-226 & 228	5	**1.22 ± 0.612**	**1.62 ± 0.775**	**0.878 ± 0.475**	**11 ± 2.66**	**1.54 ± 0.887**	5 UJ ± 0.49	**0.674 ± 0.341**	5 U ± 1.36	5 U ± 1.48	5 UJ ± 0.905	5 U ± 2.81	**5.14 J J ± 2**	5 U ± 1	5 U ± 1.04	**2.64 ± 1.16**

Notes and Abbreviations:

mg/L: milligram per liter.
cn: see case narative.
B: detected in the sample and the associated blank.
F1: matrix spike and/or matrix spike duplicate recovery exceeds control limits.
G: the sample minimum detectable concentration is greater than the requested reporting limit.
HF: field parameter with a holding time of 15 minutes.
U: not detected, value is the reporting limit.
J: value is estimated.
J+: value is estimated with a potential high bias.
R: value is rejected.
*Results in **bold** are detected.*
Shaded value indicates an exceedance of the Groundwater Protection Standard.
"-" Field parameters not measured during sampling due to limited available sample volume

TABLE 3
SUMMARY OF SUPPLEMENTARY GROUNDWATER QUALITY DATA
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Location Group	Action Level	Ash Pond														
Location Name		CMA-04	CMA-04	CMA-04BR	CMA-04BR	CMA-04I	CMA-04I	CMA-05	CMA-05	CMA-05I	CMA-05I	CMA-06	CMA-06	CMA-06BR	CMA-06BR	CMA-06I
Sample Name	Groundwater Protection Standard	CMA-04-020723-1055	CMA-04-032923	CMA-04BR-020223-1010	CMA-04BR-033023	CMA-04I-020723-0915	CMA-04I-033123	CMA-05-020823-1625	CMA-05-032823	CMA-05I-020823-1420	CMA-05I-032823	CMA-06-021023-950	CMA-06-033023	CMA-06BR-021023-1240	CMA-06BR-033123	CMA-06I-021023-1120
Sample Date		02/07/2023	03/29/2023	02/02/2023	03/30/2023	02/07/2023	03/31/2023	02/08/2023	03/28/2023	02/08/2023	03/28/2023	02/10/2023	03/30/2023	02/10/2023	03/31/2023	02/10/2023
Lab Sample ID		180-151869-5	180-154350-3	180-151450-8	180-154451-11	180-151869-4	180-154451-9	180-151869-1	180-154274-5	180-151869-2	180-154274-6	180-151937-1	180-154405-4	180-151937-3	180-154451-3	180-151937-2
Inorganic Compounds, Dissolved (mg/L)																
Antimony, Dissolved	0.006	0.002 U	-	0.002 U	-	**0.0094**	-	**0.0021**	-	**0.0024**	-	0.002 U	-	**0.0023**	-	0.002 U
Arsenic, Dissolved	0.01	**0.0013**	-	**0.00074 J**	-	**0.0016**	-	**0.012**	-	**0.00083 J**	-	**0.01**	-	**0.0058**	-	**0.012**
Barium, Dissolved	2	**0.045**	-	**0.19**	-	**0.065**	-	**0.081**	-	**0.095**	-	**0.12**	-	**0.089**	-	**0.31**
Beryllium, Dissolved	0.004	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U
Boron, Dissolved	NA	**0.39**	-	**1.7**	-	**0.032 J**	-	**0.056 J**	-	**0.1 J**	-	**0.036 J**	-	**0.76**	-	**0.092 J**
Cadmium, Dissolved	0.005	**0.00028 J**	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U
Calcium, Dissolved	NA	**250 J+**	-	**27**	-	**79 J+**	-	**79 J+**	-	**92 J+**	-	**94**	-	**48**	-	**86**
Chromium, Dissolved	0.1	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U	-	0.002 U
Cobalt, Dissolved	0.006	**0.0024**	-	0.0005 U	-	**0.00034 J**	-	**0.00042 J**	-	**0.00055**	-	**0.0005**	-	**0.002**	-	0.0005 U
Iron, Dissolved	NA	0.05 U	**1.5**	**0.044 J**	**0.29**	0.05 U	**0.48**	**7.5**	**6.2**	**0.7**	**3.1**	**6.5**	**6.1**	**0.13 J+**	0.1 U	**10**
Lead, Dissolved	0.015	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U
Lithium, Dissolved	0.04	**0.034**	-	**0.029**	-	**0.0071**	-	**0.0025 J**	-	**0.022**	-	**0.0065**	-	**0.016**	-	**0.0013 J**
Manganese, Dissolved	NA	**1.4**	**1.7**	**0.077**	**0.086**	**0.41**	**0.95**	**0.26**	**0.3**	**0.94**	**1.8**	**0.2**	**0.27**	**0.075**	**0.049**	**0.16**
Molybdenum, Dissolved	0.1	**0.0031 J**	-	**0.0041 J**	-	**0.0039 J**	-	**0.0017 J**	-	**0.0085**	-	**0.0028 J**	-	**0.015**	-	0.005 U
Selenium, Dissolved	0.05	0.005 U	-	0.005 U	-	0.005 U	-	0.005 U	-	0.005 U	-	0.005 U	-	0.005 U	-	0.005 U
Thallium, Dissolved	0.002	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U	-	0.001 U
Inorganic Compounds, Total (mg/L)																
Antimony, Total	0.006	0.002 U	0.002 U	0.002 U	0.002 U	**0.0091**	**0.0025**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.00098 J**	**0.0024**	0.002 U
Arsenic, Total	0.01	**0.0016**	**0.0057**	**0.0015**	**0.0047 J**	**0.0015**	**0.0021 J**	**0.012**	**0.011**	**0.00092 J**	**0.0011 J**	**0.0069**	**0.0082**	**0.0095**	**0.005**	**0.012**
Barium, Total	2	**0.052**	**0.041**	**0.21**	**0.33**	**0.074**	**0.085**	**0.084**	**0.086**	**0.1**	**0.11**	**0.1**	**0.11**	**0.14**	**0.16**	**0.3**
Beryllium, Total	0.004	0.001 U	0.001 U	0.001 U	**0.0011**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.00072 J**	0.001 U	0.001 U
Boron, Total	NA	**0.42**	**0.4**	**1.6**	**1.7**	0.2 U	0.1 U	0.2 U	**0.078 J**	0.2 U	**0.1**	**0.043 J**	0.1 U	**0.74**	**0.59**	**0.098 J**
Cadmium, Total	0.005	**0.00029 J**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Calcium, Total	NA	**280 J+**	-	**28**	-	**75 J+**	-	**77 J+**	-	**90 J+**	-	**84**	-	**50**	-	**79**
Chromium, Total	0.1	0.002 U	0.005 U	**0.0046**	**0.026**	**0.0017 J**	**0.011**	0.002 U	**0.003 J**	**0.0022**	0.005 U	**0.0055**	**0.0027 J**	**0.0053**	**0.004 J**	**0.0015 J**
Cobalt, Total	0.006	**0.0032**	**0.0037**	**0.0023**	**0.011**	**0.0013**	**0.0015**	**0.00081**	**0.0014**	**0.0015**	**0.00041 J**	**0.0011**	**0.0011**	**0.0065**	**0.0033**	**0.0005**
Lead, Total	0.015	**0.0005 J**	0.001 U	**0.0032**	**0.01**	**0.0014**	**0.00059 J**	**0.00073 J**	**0.0016**	**0.0021**	0.001 U	**0.00088 J**	**0.0017**	**0.0084**	**0.0022**	**0.0012**
Lithium, Total	0.04	**0.039**	**0.03**	**0.033**	**0.051**	**0.0079**	**0.0052 J**	**0.0035 J**	**0.0052 J**	**0.022**	**0.022**	**0.0071**	**0.0069 J**	**0.022**	**0.013**	**0.0015 J**
Magnesium, Total	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.002	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum, Total	0.1	**0.003 J**	**0.0028 J**	**0.0031 J**	**0.0024 J**	**0.0016 J**	**0.0042 J**	**0.0014 J**	**0.0024 J**	**0.0033 J**	**0.0052**	**0.0032 J**	**0.0023 J**	**0.0095**	**0.015**	0.005 U
Phosphate, Total	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium, Total	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium, Total	0.05	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sodium, Total	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium, Total	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Other																
Alkalinity, Bicarbonate (as CaCO3) (mg/L)	NA	**550**	**510**	**520**	**480**	**410**	**390**	**330**	**300**	**560**	**510**	**560**	**500**	**570**	**470**	**540**
Alkalinity, Total (as CaCO3) (mg/L)	NA	**550**	**510**	**530**	**480**	**410**	**390**	**330**	**300**	**560**	**510**	**560**	**500**	**570**	**470**	**540**
Chloride (mg/L)	NA	-	**28**	-	**110**	-	**2**	-	**13**	-	**6.6**	**5.4**	**5.1**	**24**	**19**	**5.4**
Fluoride (mg/L)	4	-	**0.18 B**	-	**0.81**	-	**0.21**	-	**0.46**	-	**0.21**	**0.39**	**0.19 B**	**0.38**	**0.23**	**0.21**
Sulfate (mg/L)	NA	-	**700**	-	**2**	-	**4.5**	-	**130**	-	**5.7**	**11**	**3.9**	**24**	**8.5**	1 U
Total Dissolved Solids (TDS) (mg/L)	NA	**1600**	**1700**	**730**	**740**	**380**	**390**	**470**	**500**	**530**	**520**	**520**	**490**	**1100**	**550**	**470**
pH (lab) (SU	NA	**6.9 J**	**7.3 HF**	**8 J**	**8 HF**	**7.1 J**	**7.5 HF**	**7.1 J**	**8.4 HF**	**7.2 J**	**8.2 HF**	**7.4 J**	**7.5 HF**	**7.5 J**	**7.7 HF**	**7.1 J**
Sulfide, Total (mg/L)	NA	3 UJ	3 Ucn	3 UJ	3 U	3 UJ	3 U	3 UJ	3 Ucn	3 UJ	3 Ucn	3 UJ	3 Ucn	3 UJ	3 U	3 UJ
Radiological (pCi/L)																
Radium-226	NA	**0.206 ± 0.132**	1 U ± 0.166	**0.378 ± 0.18**	1 UG ± 0.927	1 U ± 0.177	**0.48 ± 0.327**	**0.176 ± 0.104**	1 U ± 0.375	1 U ± 0.175	1 U ± 0.32	**0.405 ± 0.138**	1 U ± 0.265	**0.63 ± 0.288**	1 UG ± 0.607	**0.503 ± 0.157**
Radium-228	NA	1 U ± 0.482	1 U ± 0.31	**1.56 ± 1**	1 UG ± 1.22	1 U ± 0.922	1 U ± 0.391	1 U ± 0.485	1 UG ± 0.553	1 U ± 0.81	1 U ± 0.387	1 U ± 0.489	1 U ± 0.436	1 U ± 1.52	1 UG ± 0.902	1 U ± 0.624
Radium-226 & 228	5	5 UJ ± 0.5	5 U ± 0.352	5 U ± 1.02	**1.91 ± 1.53**	5 U ± 0.939	5 U ± 0.51	5 UJ ± 0.496	5 U ± 0.668	5 U ± 0.829	5 U ± 0.502	5 UJ ± 0.508	5 U ± 0.51	5 U ± 1.55	5 U ± 1.09	5 U ± 0.643

Notes and Abbreviations:

mg/L: milligram per liter.
cn: see case narative.
B: detected in the sample and the associated blank.
F1: matrix spike and/or matrix spike duplicate recovery exceeds control limits.
G: the sample minimum detectable concentration is greater than the requested reporting limit.
HF: field parameter with a holding time of 15 minutes.
U: not detected, value is the reporting limit.
J: value is estimated.
J+: value is estimated with a potential high bias.
R: value is rejected.
*Results in **bold** are detected.*
Shaded value indicates an exceedance of the Groundwater Protection Standard.
"-" Field parameters not measured during sampling due to limited available sample volume

TABLE 3
SUMMARY OF SUPPLEMENTARY GROUNDWATER QUALITY DATA
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Location Group	Action Level	Ash Pond						
Location Name	Groundwater Protection Standard	CMA-06I	CMA-07I	CMA-07I	CMA-08I	CMA-08I	CMA-08I	CMA-08I
Sample Name		CMA-06I-033023	CMA-07I-020723-1250	CMA-07I-033123	CMA-08I-020823-1050	20484-020823-0001	CMA-08I-033023	20760-033023-0001
Sample Date		03/30/2023	02/07/2023	03/31/2023	02/08/2023	02/08/2023	03/30/2023	03/30/2023
Lab Sample ID		180-154405-8	180-151869-8	180-154451-7	180-151869-6	180-151869-3	180-154405-6	180-154405-7
Inorganic Compounds, Dissolved (mg/L)								
Antimony, Dissolved	0.006	-	**0.0032**	-	0.002 U	**0.0014 J**	-	-
Arsenic, Dissolved	0.01	-	**0.0047**	-	0.001 U	0.001 U	-	-
Barium, Dissolved	2	-	**0.02**	-	**0.026**	**0.025**	-	-
Beryllium, Dissolved	0.004	-	0.001 U	-	0.001 U	0.001 U	-	-
Boron, Dissolved	NA	-	**0.17 J**	-	**8**	**8**	-	-
Cadmium, Dissolved	0.005	-	0.001 U	-	0.001 U	0.001 U	-	-
Calcium, Dissolved	NA	-	**33 J+**	-	**290 J+**	**290 J+**	-	-
Chromium, Dissolved	0.1	-	0.002 U	-	0.002 U	0.002 U	-	-
Cobalt, Dissolved	0.006	-	**0.00052**	-	**0.00092**	**0.00088**	-	-
Iron, Dissolved	NA	**7.6**	0.05 U	**3.9**	0.05 U	0.05 U	**0.53**	**0.5**
Lead, Dissolved	0.015	-	0.001 U	-	0.001 U	0.001 U	-	-
Lithium, Dissolved	0.04	-	**0.028**	-	**0.032**	**0.031**	-	-
Manganese, Dissolved	NA	**0.14**	**0.26**	**0.41**	**0.23**	**0.22**	**0.32**	**0.31**
Molybdenum, Dissolved	0.1	-	**0.1**	-	**0.081**	**0.081**	-	-
Selenium, Dissolved	0.05	-	**0.0015 J**	-	**0.00086 J**	**0.00088 J**	-	-
Thallium, Dissolved	0.002	-	0.001 U	-	0.001 U	0.001 U	-	-
Inorganic Compounds, Total (mg/L)								
Antimony, Total	0.006	0.002 U	**0.0017 J**	**0.00099 J**	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic, Total	0.01	**0.014**	**0.0061**	**0.012**	**0.00057 J**	**0.00052 J**	**0.00093 J**	0.005 U
Barium, Total	2	**0.29**	**0.067**	**0.41**	**0.024**	**0.024**	**0.02**	**0.019**
Beryllium, Total	0.004	0.001 U	**0.00049 J**	**0.0025**	0.001 U	0.001 U	0.001 U	0.001 U
Boron, Total	NA	**0.098 J**	0.2 U	**0.17**	**8.3**	**8.4**	**7.9**	**7.8**
Cadmium, Total	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Calcium, Total	NA	-	**42 J+**	-	**290 J+**	**290 J+**	-	-
Chromium, Total	0.1	0.005 U	**0.0039**	**0.1**	**0.0017 J**	0.002 U	0.005 U	0.005 U
Cobalt, Total	0.006	0.001 U	**0.0046**	**0.0092**	**0.00096**	**0.0011**	**0.0011**	**0.00099 J**
Lead, Total	0.015	0.001 U	**0.008**	**0.038**	**0.00069 J**	**0.00079 J**	0.001 U	0.001 U
Lithium, Total	0.04	0.008 U	**0.034**	**0.045**	**0.033**	**0.031**	**0.031**	**0.029**
Magnesium, Total	NA	-	-	-	-	-	-	-
Mercury, Total	0.002	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum, Total	0.1	0.005 U	**0.041**	**0.029**	**0.085**	**0.074**	**0.09**	**0.086**
Phosphate, Total	NA	-	-	-	-	-	-	-
Phosphorus	NA	-	-	-	-	-	-	-
Potassium, Total	NA	-	-	-	-	-	-	-
Selenium, Total	0.05	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sodium, Total	NA	-	-	-	-	-	-	-
Thallium, Total	0.002	0.001 U	0.001 U	**0.00034 J**	0.001 U	0.001 U	0.001 U	0.001 U
Other								
Alkalinity, Bicarbonate (as CaCO3) (mg/L)	NA	**470**	**630**	**550**	**350**	**350**	**340**	**340**
Alkalinity, Total (as CaCO3) (mg/L)	NA	**470**	**630**	**550**	**350**	**350**	**340**	**340**
Chloride (mg/L)	NA	**5.2**	-	**7.8**	-	-	**270**	**270**
Fluoride (mg/L)	4	**0.14 B**	-	**0.14**	-	-	**0.34 B**	**0.34 B**
Sulfate (mg/L)	NA	**1.7**	-	**12**	-	-	**1700**	**1700**
Total Dissolved Solids (TDS) (mg/L)	NA	**460**	**4400 J**	**560**	**3900**	**3700**	**3400**	**3400**
pH (lab) (SU	NA	**7.4 HF**	**7.7 J**	**7.6 HF**	**7.2 J**	**7.4 J**	**7.5 HF**	**7.5 HF**
Sulfide, Total (mg/L)	NA	3 Ucn	**6.4 J**	3 U	3 UJ	3 UJ	3 Ucn	3 Ucn
Radiological (pCi/L)								
Radium-226	NA	1 U ± 0.307	-	1 UG ± 1.51	**0.154 ± 0.101**	**0.131 ± 0.0876**	1 U ± 0.156	1 U ± 0.182
Radium-228	NA	**1.52 ± 0.551**	-	1 UG ± 1.86	1 U ± 0.409	1 U ± 0.419	**0.479 ± 0.302**	1 U ± 0.322
Radium-226 & 228	5	**1.89 ± 0.631**	-	5 U ± 2.4	5 UJ ± 0.421	5 UJ ± 0.428	**0.535 ± 0.34**	**0.532 ± 0.37**

Notes and Abbreviations:

mg/L: milligram per liter.
cn: see case narative.
B: detected in the sample and the associated blank.
F1: matrix spike and/or matrix spike duplicate recovery exceeds control limits.
G: the sample minimum detectable concentration is greater than the requested reporting limit.
HF: field parameter with a holding time of 15 minutes.
U: not detected, value is the reporting limit.
J: value is estimated.
J+: value is estimated with a potential high bias.
R: value is rejected.
*Results in **bold** are detected.*
Shaded value indicates an exceedance of the Groundwater Protection Standard.
"-" Field parameters not measured during sampling due to limited available sample volume

TABLE 4
SUMMARY OF GROUNDWATER QUALITY DATA - MAY AND NOVEMBER 2023
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Location Group	Action Level	Background			
Location Name	GWPS	CCR-BK-1R	CCR-BK-1R	CCR-BK-2	CCR-BK-2
Sample Name		CCR-BK-1R-051123	CCR-BK-1R-110823	CCR-BK-2-051023	CCR-BK-2-110923
Sample Date		05/11/2023	11/08/2023	05/10/2023	11/09/2023
Lab Sample ID		180-156535-21	180-165101-18	180-156535-5	180-165230-1
Detection Monitoring - EPA Appendix III Constituents (mg/L)					
Boron, Total	NA	0.1 U	0.2 U	0.1 U	0.2 U
Calcium, Total	NA	**51**	**46**	**40**	**40**
Chloride	NA	**9**	**10**	**18**	**17**
Fluoride	4	**0.18 J+**	**0.17**	0.1 U	**0.15**
pH (lab) (pH units)	NA	**7.2 J**	**7.3 J**	**7 J**	**7.1 J**
Sulfate	NA	**39**	**37**	**22**	**21**
Total Dissolved Solids (TDS)	NA	**280**	**290**	**240**	**230**
Assessment Monitoring - EPA Appendix IV Constituents (mg/L)					
Antimony, Total	0.006	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic, Total	0.01	0.005 U	**0.00041 J**	0.005 U	0.001 U
Barium, Total	2	**0.074**	**0.087**	**0.032**	**0.032**
Beryllium, Total	0.004	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium, Total	0.005	0.001 U	0.001 U	0.001 U	0.001 U
Chromium, Total	0.1	**0.0017 J**	**0.0016 J**	0.005 U	0.002 U
Cobalt, Total	0.006	**0.00026 J**	0.0005 U	0.001 U	0.0005 U
Fluoride	4	**0.18 J+**	**0.17**	0.1 U	**0.15**
Lead, Total	0.015	0.001 U	**0.00041 J**	0.001 U	0.001 U
Lithium, Total	0.04	**0.0084**	**0.011**	**0.0022 J**	**0.0016 J**
Mercury, Total	0.002	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum, Total	0.1	**0.0014 J**	**0.0017 J**	0.005 U	0.005 U
Selenium, Total	0.05	0.005 U	0.005 U	0.005 U	0.005 U
Thallium, Total	0.002	0.001 U	0.001 U	0.001 U	0.001 U
Radiological (pCi/L)					
Radium-226	NA	**0.482 ± 0.333**	0.679 U ± 0.299	1 U ± 0.192	1 U ± 0.109
Radium-228	NA	1 U ± 0.633	1 U ± 0.379	1 U ± 0.347	1 U ± 0.455
Radium-226 & 228	5	**1.39 J ± 0.715**	0.959 UJ ± 0.483	5 U ± 0.397	**0.723 ± 0.468**
Field Parameters					
Temperature (Deg C)	NA	**17.03**	**25.2**	**17.84**	**23.79**
Dissolved Oxygen, Field (mg/L)	NA	**5.03**	**3.21**	**0.58**	**0.51**
Conductivity, Field (mS/cm)	NA	**0.441**	**0.43**	**0.379**	**0.38**
Oxidation Reduction Potential (ORP), Field (mv)	NA	**238**	**222**	**184**	**235**
Turbidity, Field (NTU)	NA	**4.8**	**2.4**	**0**	**0**
pH, Field (pH units)	NA	**6.89**	**6.97**	**6.73**	**6.41**

Notes and Abbreviations:

CCR: Coal Combustion Residuals.
mg/L: milligram per liter.
pCi/L: picoCurie per liter.
Deg C: Degrees Celsius.
mS/cm: milliSiemen per centimeter.
mv: millivolts.
NTU: Nephelometric Turbidity Units.
U: not detected, value is the laboratory reporting limit.
J: value is estimated.
J+: value is estimated with a potential high bias.
USEPA: United States Environmental Protection Agency.
GWPS: Ground Water Protection Standard.
*Results in **bold** are detected.*
Shaded values indicate an exceedance of the GWPS.
USEPA. 2020. Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities. December 14. 40 CFR Part 257.
https://www.epa.gov/coalash/coal-ash-rule

TABLE 4
SUMMARY OF GROUNDWATER QUALITY DATA - MAY AND NOVEM
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Location Group	Downgradient																
Location Name	CCR-AP-1R	CCR-AP-1R	CCR-AP-2I	CCR-AP-2I	CCR-AP-2R	CCR-AP-2R	CCR-AP-3I	CCR-AP-3I	CCR-AP-3R	CCR-AP-3R	CCR-AP-3R	CCR-AP-4R	CCR-AP-4R	CCR-AP-5R	CCR-AP-5R	CCR-AP-6	CCR-AP-6
Sample Name	CCR-AP-1R-051023	CCR-AP-1R-110823	CCR-AP-2I-050923	CCR-AP-2I-110723	CCR-AP-2R-051023	CCR-AP-2R-110823	CCR-AP-3I-050923	CCR-AP-3I-110723	CCR-AP-3R-050923	DUP-1-050923	CCR-AP-3R-110723	CCR-AP-4R-051023	CCR-AP-4R-110823	CCR-AP-5R-050923	CCR-AP-5R-110723	CCR-AP-6-051023	CCR-AP-6-110823
Sample Date	05/10/2023	11/08/2023	05/09/2023	11/07/2023	05/10/2023	11/08/2023	05/09/2023	11/07/2023	05/09/2023	05/09/2023	11/07/2023	05/10/2023	11/08/2023	05/09/2023	11/07/2023	05/10/2023	11/08/2023
Lab Sample ID	180-156535-13	180-165101-17	180-156535-12	180-165101-7	180-156535-9	180-165101-11	180-156535-2	180-165101-2	180-156535-3	180-156535-22	180-165101-4	180-156535-7	180-165101-14	180-156535-1	180-165101-6	180-156535-18	180-165230-3
Detection Monitoring - EPA Appendix III Constituents (mg/L)																	
Boron, Total	**1.8**	**2.4**	**2.1**	**2.2**	**12**	**11**	**2.3**	**2.3**	**14**	**14**	**15**	**0.063 J**	0.2 U	**15**	**14**	**7.9**	**6.8**
Calcium, Total	**27**	**85**	**9.5**	**11**	**380**	**410**	**16**	**16**	**430**	**450**	**370**	**110**	**110**	**540**	**490**	**230**	**250**
Chloride	**10**	**82**	**92**	**100**	**480**	**540**	**150**	**170**	**830**	**840**	**900**	**6.5**	**7.9**	**500**	**570**	**230**	**220**
Fluoride	**0.5**	**0.35**	**0.91**	**1**	**0.23 J+**	**0.33**	**1.3**	**1.6**	**0.94**	**0.95**	**1.1**	**0.31 J+**	**0.35**	**0.32 J+**	**0.23**	**0.18 J+**	**0.18 J**
pH (lab) (pH units)	**7.4 J**	**7.3 J**	**8.1 J**	**7.9 J**	**7.3 J**	**7.2 J**	**8.2 J**	**8.2 J**	**7.4 J**	**7.4 J**	**7.8 J**	**7.4 J**	**7.4 J**	**7.2 J**	**7.3 J**	**7.1 J**	**7.2 J**
Sulfate	**110**	**380**	**1.9**	**1.5**	**2800**	**2900**	**16**	**13**	**5000**	**4900**	**5000**	**59**	**57**	**3500**	**3500**	**1400**	**1400**
Total Dissolved Solids (TDS)	**780**	**1200**	**690 J**	**720**	**5000 J**	**5000**	**640**	**780**	**8400 J**	**8200 J**	**9000**	**590**	**560**	**6100 J**	**6100**	**2900**	**2800**
Assessment Monitoring - EPA Appendix IV Constituents (mg/L)																	
Antimony, Total	0.002 U	0.002 U	**0.0013 J**	0.002 U	0.002 U	0.002 U	**0.00088 J**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.00094 J**	0.002 U	0.002 U	0.002 U
Arsenic, Total	0.005 U	**0.00036 J**	0.005 U	**0.00089 J**	**0.0011 J**	**0.00064 J**	0.005 U	**0.00052 J**	0.005 U	0.005 U	0.001 U	0.005 U	**0.0003 J**	0.005 U	0.001 U	**0.0024 J**	**0.002**
Barium, Total	**0.044**	**0.059**	**0.084**	**0.11**	**0.048**	**0.063**	**0.15**	**0.17**	**0.019**	**0.019**	**0.015**	**0.045**	**0.048**	**0.021**	**0.019**	**0.029**	**0.013**
Beryllium, Total	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium, Total	0.001 U	0.001 U	0.001 U	0.001 U	**0.00038 J**	**0.00026 J**	0.001 U	0.001 U	**0.00031 J**	**0.00029 J**	0.001 U	0.001 U	0.001 U	**0.00022 J**	0.001 U	0.001 U	0.001 U
Chromium, Total	0.005 U	0.002 U	0.005 U	**0.0023**	0.005 U	0.002 U	0.005 U	0.002 U	0.005 U	0.005 U	0.002 U	**0.0018 J**	**0.002**	0.005 U	0.002 U	**0.0049 J**	0.002 U
Cobalt, Total	0.001 U	0.0005 U	**0.00024 J**	**0.00078**	**0.0025**	**0.0029**	**0.00038 J**	**0.0003 J**	**0.00047 J**	**0.00046 J**	**0.00038 J**	0.001 U	0.0005 U	**0.00021 J**	0.0005 U	**0.0036**	**0.0022**
Fluoride	**0.5**	**0.35**	**0.91**	**1**	**0.23 J+**	**0.33**	**1.3**	**1.6**	**0.94**	**0.95**	**1.1**	**0.31 J+**	**0.35**	**0.32 J+**	**0.23**	**0.18 J+**	**0.18 J**
Lead, Total	0.001 U	0.001 U	0.001 U	**0.0008 J**	0.001 U	**0.00046 J**	0.001 U	**0.0004 J**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.0018**	0.001 U
Lithium, Total	0.008 U	**0.0018 J**	**0.021**	**0.021**	**0.028**	**0.03**	**0.023**	**0.024**	**0.075**	**0.075**	**0.09**	0.008 U	0.005 U	**0.017**	**0.014**	**0.025**	**0.021**
Mercury, Total	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum, Total	0.005 U	**0.0043 J**	0.005 U	**0.0013 J**	**1.2**	**1.4**	0.005 U	**0.00082 J**	**0.69**	**0.71**	**0.69**	0.005 U	**0.0015 J**	**0.14**	**0.14**	0.005 U	**0.0041 J**
Selenium, Total	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.0025 J**	**0.0029 J**	**0.0028 J**	0.005 U	0.005 U	**0.00092 J**	0.005 U	0.005 U	0.005 U
Thallium, Total	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.00031 J**	0.001 U	0.001 U	0.001 U
Radiological (pCi/L)																	
Radium-226	1 U ± 0.226	0.499 U ± 0.259	**0.321 ± 0.212**	0.809 U ± 0.322	1 U ± 0.278	0.716 U ± 0.255	**0.452 ± 0.315**	1 U ± 0.199	1 U ± 0.203	1 U ± 0.218	0.293 U ± 0.162	1 U ± 0.214	0.333 U ± 0.196	1 U ± 0.16	1 U ± 0.162	1 U ± 0.331	1 U ± 0.104
Radium-228	1 U ± 0.285	**0.905 ± 0.419**	1 U ± 0.328	1 U ± 0.388	1 U ± 0.468	**0.696 ± 0.342**	**1.08 ± 0.536**	**0.607 ± 0.345**	**1.02 ± 0.447**	1 U ± 0.336	**0.639 ± 0.306**	1 U ± 0.257	1 U ± 0.327	1 U ± 0.331	1 U ± 0.366	1 U ± 0.51	1 U ± 0.32
Radium-226 & 228	5 U ± 0.364	**1.4 J ± 0.493**	**0.737 J ± 0.391**	1.08 UJ ± 0.504	5 U ± 0.544	**1.41 J ± 0.427**	**1.53 ± 0.622**	**0.869 J ± 0.398**	**1.2 J ± 0.491**	5 U ± 0.401	**0.933 J ± 0.346**	5 U ± 0.334	0.712 UJ ± 0.381	5 U ± 0.368	5 U ± 0.4	5 U ± 0.608	5 U ± 0.336
Field Parameters																	
Temperature (Deg C)	**17.64**	**24.3**	**19.62**	**29.7**	**19.32**	**27.5**	**20.89**	**26.35**	**20.4**	**20.4**	**27.44**	**16.51**	**23.38**	**18.49**	**25.8**	**16.13**	**26.83**
Dissolved Oxygen, Field (mg/L)	**0**	**0**	**0.23**	**0.27**	**0.4**	**0.62**	**0.08**	**0.13**	**0**	**0**	**0.09**	**6.02**	**3.96**	**0**	**0.06**	**0**	**0.16**
Conductivity, Field (mS/cm)	**1.11**	**1.85**	**1.14**	**1.12**	**5.63**	**5.95**	**1.31**	**1.29**	**10.8**	**10.8**	**11.1**	**1.02**	**0.91**	**7.59**	**7.5**	**3.75**	**3.81**
Oxidation Reduction Potential (ORP), Field (mv)	**82**	**92**	**-36**	**77**	**152**	**167**	**-50**	**-116**	**102**	**102**	**59**	**154**	**230**	**75**	**104**	**-11**	**-3**
Turbidity, Field (NTU)	**6.2**	**0**	**18.4**	**30.9**	**74.5**	**94.1**	**74.1**	**35**	**0**	**0**	**0.5**	**15.4**	**4.1**	**3**	**0.4**	**13.2**	**50**
pH, Field (pH units)	**6.57**	**6.82**	**7.92**	**8.31**	**6.81**	**6.91**	**8.03**	**8.25**	**7.15**	**7.15**	**7.43**	**7.03**	**7.02**	**7.03**	**7.28**	**6.76**	**6.57**

Notes and Abbreviations:

CCR: Coal Combustion Residuals.
mg/L: milligram per liter.
pCi/L: picoCurie per liter.
Deg C: Degrees Celsius.
mS/cm: milliSiemen per centimeter.
mv: millivolts.
NTU: Nephelometric Turbidity Units.
U: not detected, value is the laboratory reporting limit.
J: value is estimated.
J+: value is estimated with a potential high bias.
USEPA: United States Environmental Protection Agency.
GWPS: Ground Water Protection Standard.
*Results in **bold** are detected.*
Shaded values indicate an exceedance of the GWPS.
USEPA. 2020. Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities. December 14. 40 CFR Part 257.
https://www.epa.gov/coalash/coal-ash-rule

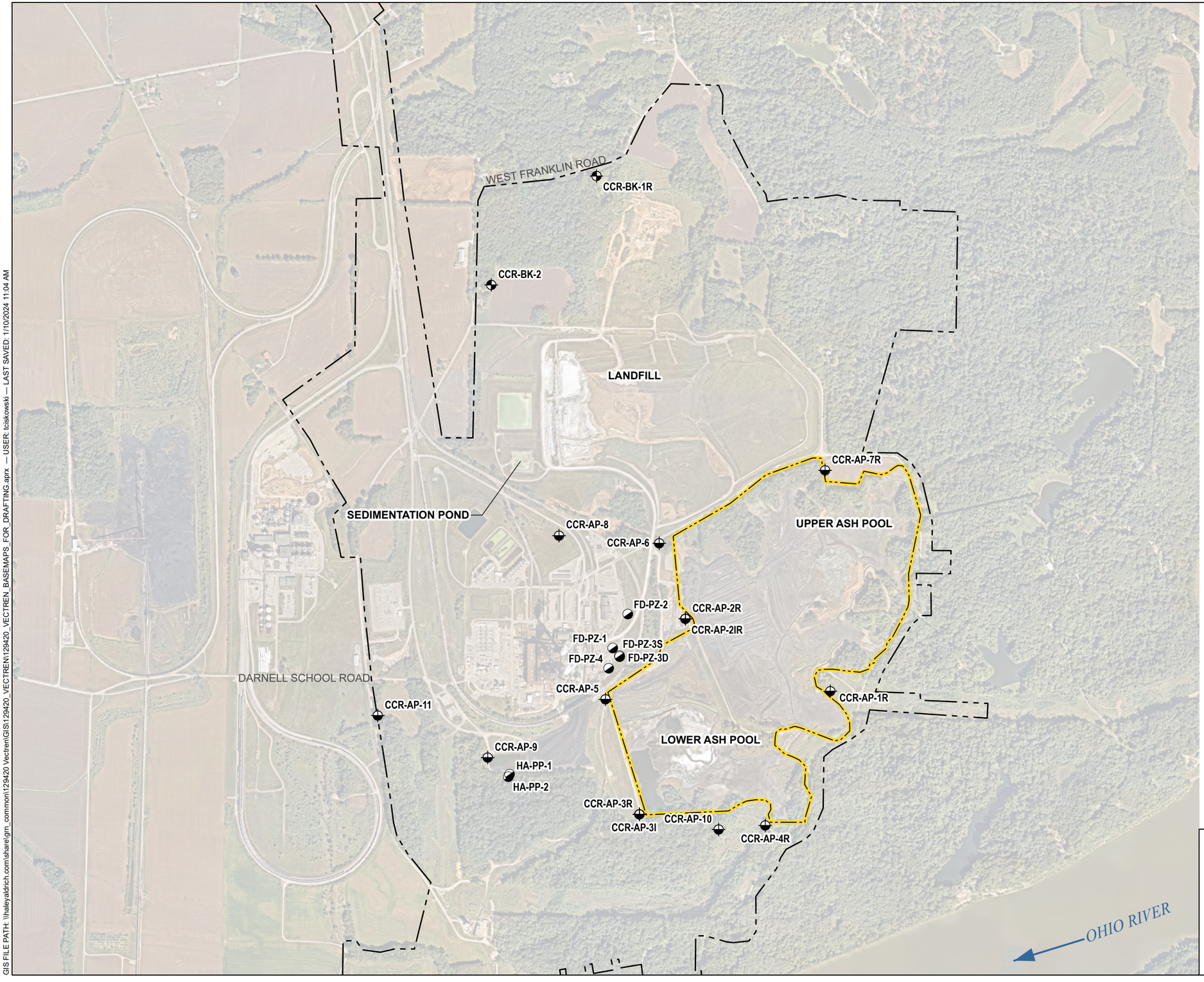
TABLE 4
SUMMARY OF GROUNDWATER QUALITY DATA - MAY AND NOVEM
A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

Location Group	Downgradient										French Drain							
Location Name	CCR-AP-7R	CCR-AP-7R	CCR-AP-8	CCR-AP-8	CCR-AP-9	CCR-AP-9	CCR-AP-10	CCR-AP-10	CCR-AP-11	CCR-AP-11	FD-PZ-1	FD-PZ-1	FD-PZ-2	FD-PZ-2	MH-1	MH-1	MH-2	MH-2
Sample Name	CCR-AP-7R-051123	CCR-AP-7R-110923	CCR-AP-8-05092023	CCR-AP-8-110823	CCR-AP-9-051023	CCR-AP-9-110823	CCR-AP-10-051023	CCR-AP-10-110823	CCR-AP-11-051023	CCR-AP-11-110723	FD-PZ-1-05092023	FD-PZ-1-110723	FD-PZ-2-051023	FD-PZ-2-110823	MH-1-05092023	MH-1-110723	MH-2-05092023	MH-2-110723
Sample Date	05/11/2023	11/09/2023	05/09/2023	11/08/2023	05/10/2023	11/08/2023	05/10/2023	11/08/2023	05/10/2023	11/07/2023	05/09/2023	11/07/2023	05/10/2023	11/08/2023	05/09/2023	11/07/2023	05/09/2023	11/07/2023
Lab Sample ID	180-156535-11	180-165230-2	180-156535-17	180-165101-13	180-156535-10	180-165101-15	180-156535-8	180-165101-16	180-156535-6	180-165101-8	180-156535-19	180-165101-5	180-156535-4	180-165101-10	180-156535-20	180-165101-1	180-156535-16	180-165101-3
Detection Monitoring - EPA Appendix III Constituents (mg/L)																		
Boron, Total	**2.1**	**4.8**	**1.2**	**0.82 J+**	**9.5**	**7.7**	**6.9**	**6**	**0.64**	0.31 U	**11**	**13**	0.1 U	0.2 U	**15**	**14**	**14**	**14**
Calcium, Total	**220**	**320**	**320**	**330**	**430**	**470**	**240**	**240**	**140**	**120**	**420**	**480**	**110**	**110**	**430**	**490**	**440**	**530**
Chloride	**220**	**430**	**110**	**120**	**1100**	**1400**	**96**	**77**	**56**	**55**	**450**	**600**	**5.1**	**5.8**	**570**	**580**	**540**	**700**
Fluoride	**0.17 J+**	**0.16**	**0.2 J+**	**0.23 J**	**0.35 J+**	**0.18**	**0.28 J+**	**0.39**	0.1 U	**0.13**	**0.3 J+**	**0.38**	0.13 U	**0.15**	**0.49**	**0.38**	**0.32 J+**	**0.39**
pH (lab) (pH units)	**6.8 J**	**6.7 J**	**7 J**	**7 J**	**7 J**	**7.1 J**	**7.5 J**	**7.4 J**	**7.2 J**	**7.1 J**	**7.6 J**	**7.5 J**	**7.4 J**	**7.4 J**	**7.4 J**	**7.4 J**	**7 J**	**7.3 J**
Sulfate	**1200**	**1900**	**1200**	**1100**	**4900**	**5400**	**1600**	**1500**	**230**	**130**	**2900**	**3400**	**7.8**	**8.5**	**3500**	**3500**	**3400**	**3700**
Total Dissolved Solids (TDS)	**2500**	**3900 J**	**2500 J**	**2300 J**	**8900 J**	**10000**	**2900**	**2700 J**	**810 J**	**640**	**5200 J**	**6000**	**480 J**	**470**	**6100 J**	**6400**	**6000 J**	**6600**
Assessment Monitoring - EPA Appendix IV Constituents (mg/L)																		
Antimony, Total	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic, Total	0.005 U	**0.0005 J**	0.005 U	**0.00086 J**	**0.011**	**0.0058**	0.005 U	**0.00048 J**	**0.00077 J**	**0.0003 J**	**0.0023 J**	**0.00093 J**	0.005 U	**0.0018**	0.005 U	**0.00043 J**	0.005 U	**0.00032 J**
Barium, Total	**0.017**	**0.022**	**0.033**	**0.034**	**0.077**	**0.073**	**0.011**	**0.011**	**0.056**	**0.063**	**0.04**	**0.029**	**0.13**	**0.16**	**0.024**	**0.025**	**0.016**	**0.02**
Beryllium, Total	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium, Total	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.00045 J**	**0.00032 J**	**0.00041 J**	**0.00044 J**	**0.0018**	**0.00039 J**
Chromium, Total	0.005 U	0.002 U	0.005 U	0.002 U	0.005 U	0.002 U	0.005 U	0.002 U	0.005 U	0.002 U	**0.0021 J**	0.002 U	0.005 U	**0.0052**	0.005 U	0.002 U	0.005 U	0.002 U
Cobalt, Total	0.001 U	0.0005 U	**0.0015**	**0.0011**	**0.00035 J**	**0.0026**	**0.00041 J**	**0.00054**	**0.00036 J**	0.0005 U	**0.0021**	**0.0021**	**0.0019**	**0.0039**	**0.0023**	**0.0024**	**0.0051**	**0.00065**
Fluoride	**0.17 J+**	**0.16**	**0.2 J+**	**0.23 J**	**0.35 J+**	**0.18**	**0.28 J+**	**0.39**	0.1 U	**0.13**	**0.3 J+**	**0.38**	0.13 U	**0.15**	**0.49**	**0.38**	**0.32 J+**	**0.39**
Lead, Total	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.0004 J**	0.001 U	0.001 U	0.001 U	0.001 U	**0.00077 J**	0.001 U	0.001 U	**0.0028**	0.001 U	0.001 U	0.001 U	0.001 U
Lithium, Total	**0.013**	**0.017**	**0.015**	**0.016**	**0.035**	**0.039**	**0.002 J**	**0.0015 J**	**0.0091**	**0.0058**	**0.028**	**0.035**	**0.0076 J**	**0.008**	**0.036**	**0.038**	**0.03**	**0.032**
Mercury, Total	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum, Total	0.005 U	0.005 U	0.005 U	**0.00082 J**	**0.014 J+**	**0.017**	0.005 U	**0.002 J**	0.005 U	**0.0008 J**	**0.57**	**0.67**	0.005 U	**0.0012 J**	**1.3**	**1.3**	**0.9**	**0.95**
Selenium, Total	0.005 U	0.005 U	0.005 U	0.005 U	**0.00089 J**	**0.0014 J**	**0.018**	**0.023**	**0.012**	**0.005**	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.002 J**	**0.0014 J**
Thallium, Total	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Radiological (pCi/L)																		
Radium-226	1 U ± 0.225	1 U ± 0.172	1 U ± 0.219	0.399 U ± 0.204	1 U ± 0.273	1 U ± 0.307	1 U ± 0.176	1 U ± 0.215	1 U ± 0.175	1 U ± 0.171	1 U ± 0.257	0.296 U ± 0.193	1 U ± 0.475	0.433 U ± 0.273	1 U ± 0.203	1 U ± 0.182	1 U ± 0.22	1 U ± 0.16
Radium-228	**0.75 ± 0.438**	**1.18 ± 0.591**	1 U ± 0.342	1 U ± 0.275	**0.876 ± 0.52**	1 U ± 0.531	**0.611 J ± 0.25**	1 U ± 0.343	1 U ± 0.341	**0.545 ± 0.296**	**1 ± 0.492**	1 U ± 0.263	1 U ± 0.689	1 U ± 0.476	1 U ± 0.301	1 U ± 0.312	1 U ± 0.388	**0.719 ± 0.328**
Radium-226 & 228	**0.877 J ± 0.492**	**1.28 J ± 0.616**	5 U ± 0.406	0.719 UJ ± 0.342	**1.22 J ± 0.587**	**1.15 ± 0.613**	**0.81 J ± 0.306**	**0.558 ± 0.405**	5 U ± 0.383	**0.69 J ± 0.342**	**1.31 J ± 0.555**	0.548 UJ ± 0.326	5 U ± 0.837	1.1 UJ ± 0.549	5 U ± 0.363	**0.522 ± 0.361**	5 U ± 0.446	**0.925 J ± 0.365**
Field Parameters																		
Temperature (Deg C)	**15.69**	**22.6**	**17.09**	**27.8**	**21.82**	**28.9**	**16.23**	**23.73**	**16.51**	**26.69**	**17.82**	**27.3**	**20.75**	**27.16**	**19.72**	**26.63**	**19.33**	**27.53**
Dissolved Oxygen, Field (mg/L)	**5.45**	**4.76**	**4.69**	**0.07**	**0**	**2.42**	**0.44**	**0.38**	**0.97**	**0.36**	**0**	**0.06**	**1.27**	**0.67**	**0.03**	**0.92**	**1.2**	**1.36**
Conductivity, Field (mS/cm)	**3.01**	**5.08**	**2.87**	**2.96**	**9.88**	**12.8**	**3.44**	**3.53**	**1.27**	**0.93**	**6.43**	**7.48**	**0.611**	**0.81**	**7.66**	**8.07**	**7.61**	**8.28**
Oxidation Reduction Potential (ORP), Field (mv)	**226**	**138**	**-71**	**-50**	**-114**	**-20**	**125**	**165**	**180**	**112**	**-100**	**-35**	**8**	**164**	**21**	**180**	**8**	**163**
Turbidity, Field (NTU)	**7.8**	**0**	**9.3**	**0**	**58.4**	**18**	**15.4**	**14.9**	**2**	**0**	**328**	**0**	**22.2**	**43.9**	**228**	**0**	**11.1**	**0**
pH, Field (pH units)	**6.33**	**6.24**	**6.67**	**6.49**	**6.96**	**6.69**	**7.02**	**7.14**	**6.81**	**6.9**	**7.42**	**7.28**	**6.96**	**6.57**	**7.15**	**6.31**	**6.85**	**6.71**

Notes and Abbreviations:

CCR: Coal Combustion Residuals.
mg/L: milligram per liter.
pCi/L: picoCurie per liter.
Deg C: Degrees Celsius.
mS/cm: milliSiemen per centimeter.
mv: millivolts.
NTU: Nephelometric Turbidity Units.
U: not detected, value is the laboratory reporting limit.
J: value is estimated.
J+: value is estimated with a potential high bias.
USEPA: United States Environmental Protection Agency.
GWPS: Ground Water Protection Standard.
*Results in **bold** are detected.*
Shaded values indicate an exceedance of the GWPS.
USEPA. 2020. Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities. December 14. 40 CFR Part 257.
https://www.epa.gov/coalash/coal-ash-rule

FIGURES



LEGEND

- PIEZOMETER
- DOWNGRADIENT GROUNDWATER MONITORING WELL
- UPGRADIENT GROUNDWATER MONITORING WELL
- PROPERTY BOUNDARY
- APPROXIMATE UNIT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
2. AERIAL IMAGERY SOURCE: HEXAGON, 21 JULY 2023

N

0 1,100 2,200
SCALE IN FEET

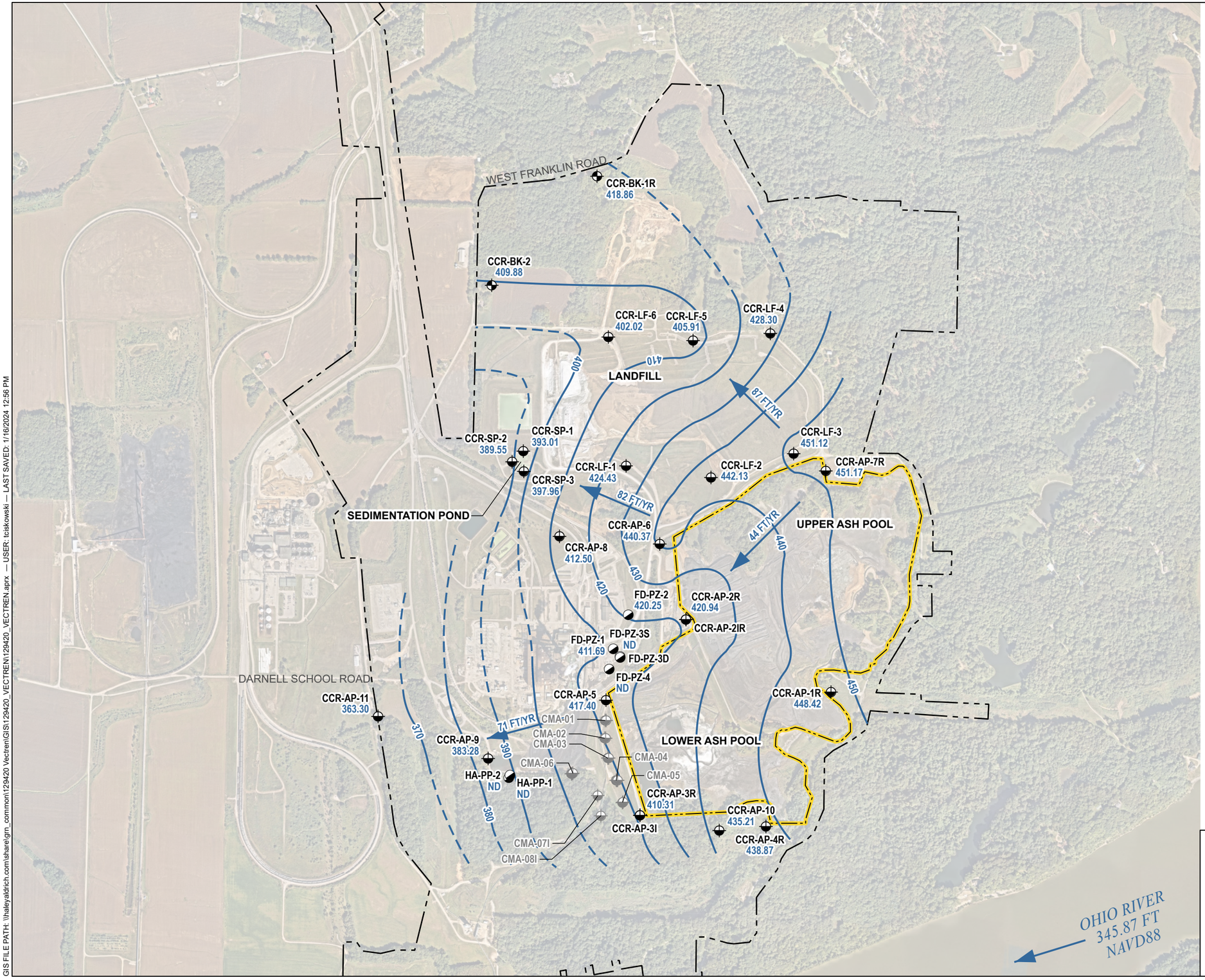
HALEY ALDRICH

A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

GROUNDWATER MONITORING WELL LOCATIONS - ASH POND

JANUARY 2024

FIGURE 1



LEGEND

- PIEZOMETER
- UPGRADIENT GROUNDWATER MONITORING WELL
- DOWNGRADIENT GROUNDWATER MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR, 10-FT INTERVAL, DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- PROPERTY BOUNDARY
- APPROXIMATE UNIT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
2. WATER LEVELS GAGED 5 MAY 2023
3. OHIO RIVER STAGE MEASURED ON 5 MAY 2023 BY USGS GAGE 03322190 AT HENDERSON, KY, APPROXIMATELY 13.5 MILES UPSTREAM FROM A.B. BROWN GENERATING STATION.
4. GROUNDWATER VELOCITY SHOWN IN FEET PER YEAR
5. $V = \frac{K(i)}{n_e}$

   V = GROUNDWATER VELOCITY (FT/YR)
   K = HYDRAULIC CONDUCTIVITY (FT/YR)
   i = GROUNDWATER GRADIENT
   n_e = EFFECTIVE POROSITY
6. SHADED WELLS WERE NOT INCLUDED IN WATER LEVEL GAGING
7. AERIAL IMAGERY SOURCE: HEXAGON, 21 JULY 2023.

N

0 1,100 2,200
SCALE IN FEET

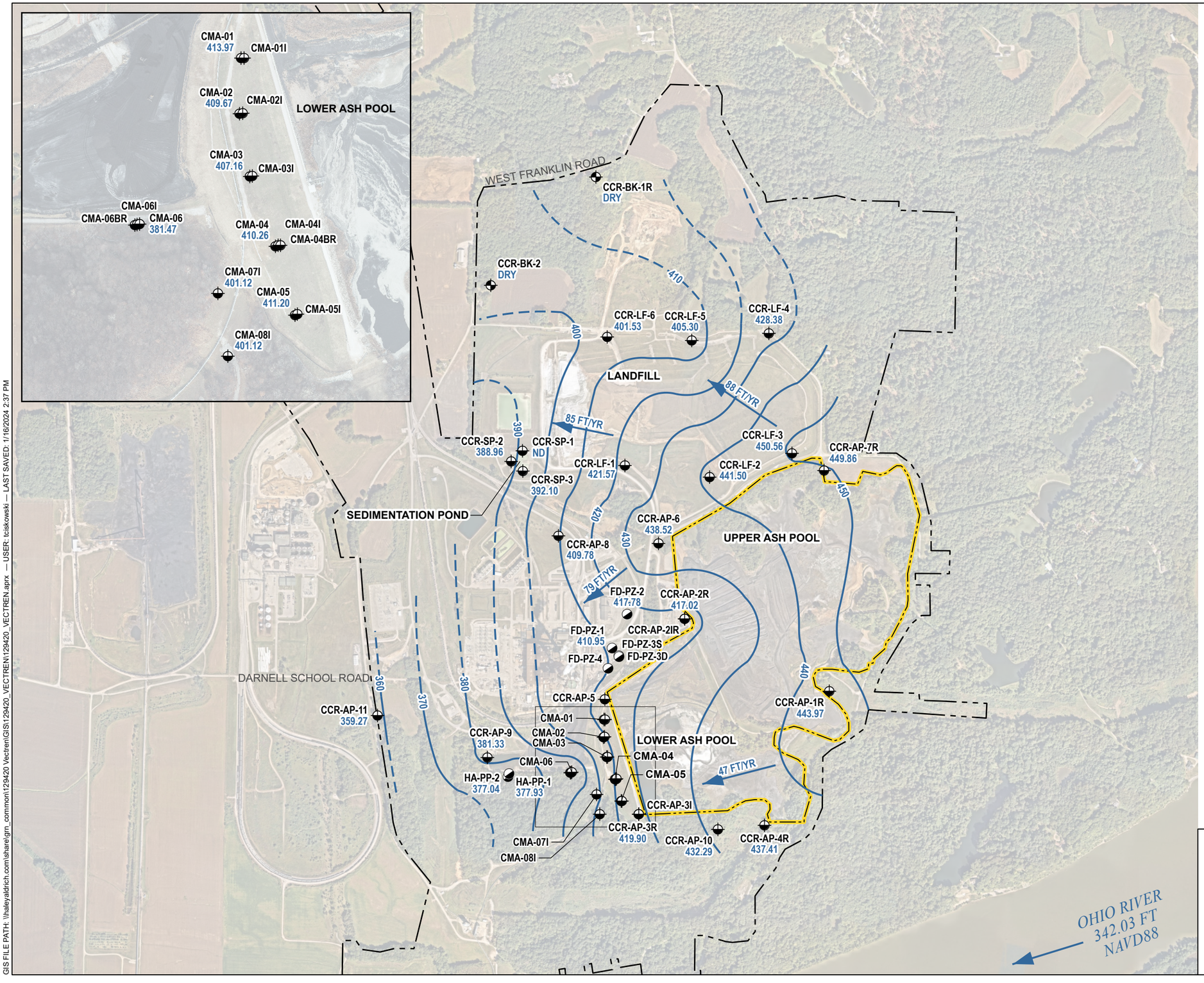
HALEY ALDRICH

A.B. BROWN GENERATING STATION
ASH POND
POSEY COUNTY, INDIANA

WATER TABLE CONFIGURATION MAP
ASH POND
5 MAY 2023

JANUARY 2024

FIGURE 2



LEGEND

- PIEZOMETER
- UPGRADIENT GROUNDWATER MONITORING WELL
- DOWNGRADIENT GROUNDWATER MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR, 10-FT INTERVAL, DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- PROPERTY BOUNDARY
- APPROXIMATE UNIT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
2. WATER LEVELS GAGED 6 NOVEMBER 2023
3. OHIO RIVER STAGE MEASURED ON 6 NOVEMBER 2023 BY USGS GAGE 03322190 AT HENDERSON, KY, APPROXIMATELY 13.5 MILES UPSTREAM FROM A.B. BROWN GENERATING STATION.
4. GROUNDWATER VELOCITY SHOWN IN FEET PER YEAR
5. $V = \frac{k(i)}{n_e}$

   V = GROUNDWATER VELOCITY (FT/YR)
   K = HYDRAULIC CONDUCTIVITY (FT/YR)
   i = GROUNDWATER GRADIENT
   n_e = EFFECTIVE POROSITY
6. AERIAL IMAGERY SOURCE: HEXAGON, 21 JULY 2023.

N

0 1,100 2,200
SCALE IN FEET

HALEY ALDRICH

A.B. BROWN GENERATING STATION
ASH POND
COUNTY POSEY, INDIANA

WATER TABLE CONFIGURATION MAP
ASH POND
6 NOVEMBER 2023

JANUARY 2024

FIGURE 3

GIS FILE PATH: \\haleyaldrich.com\share\grn_common\129420 Vectren\GIS\129420_VECTREN\129420_VECTREN.aprx — USER: lciskowski — LAST SAVED: 1/16/2024 2:37 PM

APPENDIX A
Summary of Statistical Analysis

HALEY & ALDRICH, INC.
6500 Rockside Road
Suite 200
Cleveland, OH 44131
216.739.0555

TECHNICAL MEMORANDUM

13 March 2023
File No. 129420

TO: Southern Indiana Gas and Electric Company

FROM: Haley & Aldrich, Inc.
Todd Plating, Sr. Project Manager
Steven F. Putrich, P.E., Project Principal

SUBJECT: Statistical Evaluation of the November 2022 Semi-Annual Groundwater Assessment Monitoring Data
Southern Indiana Gas and Electric Company
Ash Pond
A.B. Brown Generating Station; Posey County, Indiana

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and § 257.95 (Rule), this memorandum summarizes the statistical evaluation of the analytical results for the November 2022 semi-annual assessment monitoring event for the A.B. Brown Generating Station Ash Pond. Haley & Aldrich, Inc. (Haley & Aldrich) completed this statistical evaluation to determine if Appendix IV groundwater monitoring constituents have been detected in downgradient wells at statistically significant levels (SSL) greater than Groundwater Protection Standards (GWPS), consistent with the requirements in 40 CFR § 257.95.

Methods used during this statistical analysis are described in the *Statistical Data Analysis Plan for the A.B Brown Generating Station Ash Pond* (Haley & Aldrich, 2017). A summary of how applicable performance standards described in § 257.93 (g) were achieved include:

- § 257.93 (g) (1) – Data set distribution was evaluated using basic summary statistics, graphical methods, and the Shapiro-Wilks Test of Normality. Parametric methods were used where normal distributions were identified. Those data sets were evaluated for outliers using box plots, Dixon's test and Rosner's test. Outlier identification and data set distribution groups are summarized in Table 1.
- § 257.93 (g) (2) – Not applicable
- § 257.93 (g) (3) – Not applicable
- § 257.93 (g) (4) – Levels of confidence and additional supporting information for the use of tolerance intervals and prediction limits are included in Table 1.
- § 257.93 (g) (5) – Non-detect values were accounted for by simple substitution, where the detection limit replaced the non-detect result. Non-detect values are identified and summarized in Attachment A.

- § 257.93 (g) (6) – Time series plots for groundwater monitoring wells included in this evaluation were reviewed to identify potential seasonal variability. No additional statistics to account for seasonality of spatial variability were necessary.

Data from the groundwater sampling event for the downgradient monitoring wells (CCR-AP-1R through CCR-AP-5R, CCR-AP-6, and CCR-AP-7R) were compared to the GWPS established from the background dataset for the upgradient monitoring wells (CCR-BK-1 and CCR-BK-2) for detected Appendix IV constituents. GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level, or background concentration. The results of the assessment monitoring statistical evaluation are discussed below and provided in Table 1.

Development of GWPS

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). Haley & Aldrich certified the tolerance limit (TL) as the statistical method used for developing background concentration for the GWPS on 14 January 2019. As noted above, the GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level, or background concentration. The most recent groundwater sampling result from each compliance well was compared to the GWPS to determine if additional statistical testing is warranted.

STATISTICAL EVALUATION

An interwell statistical evaluation was used to identify SSLs. An interwell evaluation compares the most recent values from downgradient compliance wells to a background dataset composed of upgradient well data. Because the CCR unit is in assessment monitoring, no statistical evaluations were conducted on Appendix III (detection monitoring) constituents.

The parametric TL method was used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or data normalized via a transformation of the sample background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using the background dataset for detected Appendix IV constituents using parametric TL. If an Appendix IV constituent concentration from the November 2022 sampling event was greater than the GWPS, the lower confidence limit (LCL) for the downgradient well constituent was used to evaluate if an SSL was indicated. The LCL is the lower end of the confidence interval range, which is an estimated concentration range intended to contain the true mean or median

of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and United States Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample locations were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset was evaluated to determine the method for UTL calculation. The background concentrations were periodically updated per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009* (Unified Guidance).

TREND SUMMARY

Mann Kendall trend analyses were performed on data sets of sufficient sample size. Results of the trend analysis are included in Attachment A. In summary, 92 percent of trends analyzed are identified as stable or decreasing. Molybdenum has been previously identified at statistically significant levels. An increasing trend in molybdenum concentration was identified at CCR-AP-2R. Lithium has been previously identified at statistically significant levels. No increasing trends for lithium were identified in the compliance monitoring well network.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the November 2022 assessment monitoring event were compared to their respective GWPS (Attachment A). A sample concentration greater than the GWPS is considered to represent an SSL. A summary of SSLs and trends is provided as Table 1 below. Based on previous compliance sampling events and statistical evaluations, interwell comparisons were utilized for downgradient wells and constituents. Based on this statistical evaluation an SSL greater than the GWPS remains at the Ash Pond for lithium and molybdenum. As a result, the Ash Pond will remain in Assessment Monitoring.

Table 1 – Statistically Significant Level Summary

Location ID	Trend	Constituent	Newly Identified SSL	Concentration (mg/L)
CCR-AP-3R	Stable	Lithium	No	0.059
CCR-AP-2R	Increasing	Molybdenum	No	1.4
CCR-AP-3R	Stable	Molybdenum	No	0.73

Attachment A – Summary of Assessment Monitoring Statistical Evaluation – November 2022

\\haleyaldrich.com\share\grn_common\129420 Vectren\Deliverables\AB_Brown\Statistical Analysis\2022\November 2022\Ash Pond\2023-0313_ABB Ash Pond November 2022 Statistical Evaluation Summary_F.docx

ATTACHMENT A
Summary of Assessment Monitoring Statistical Evaluation – November 2022

Attachment A
Assessment Monitoring Statistical Summary - November 2022
A.B. Brown Generating Station
Ash Pond
Prepared: 13 March 2023

														MCL Comparison						Inter-well Analysis					GWPS		
Location ID	Frequency of Detection	Percent Non-Detect	Range of Non-Detect	Mean	50th Percentile (Median)	95th Percentile	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL/RSL	Report Result Unit	Detection Exceedances (Y/N)	Number of Detection Exceedances	Number of Non-Detection Exceedances	Outlier Presence	Outlier Removed	Trend	Distribution Group	November 2022 Concentrations (mg/L)	Detect?	Lower Confidence Level (LCL)	Upper Tolerance Limit (mg/L)	SSI (Exceedance above Background at Individual Well)	Groundwater Protection Standard (Higher of MCL/RSL or Upper Tolerance Limit) (mg/L)	Exceedance above GWPS at Individual Well	SSL
CCR Appendix-IV: Antimony, Total (mg/L)																											
CCR-BK-1	2/18	89%	0.002-0.002	0.00362	0.004	0.004	0.0009	0.000000629	0.0011216	0.621	0.006	mg/L	N	0	0	N	N	NA	Non-parametric				0.002		0.006		
CCR-BK-2	1/18	94%	0.002-0.002	0.00384	0.004	0.004	0.00096	2.494E-07	0.0007062	0.3686	0.006	mg/L	N	0	0	N	N	NA									
CCR-AP-1R	1/18	94%	0.002-0.002	0.00386	0.004	0.004	0.0014	1.8242E-07	0.000604	0.3134	0.006	mg/L	N	0	0	N	N	NA		0.001	Y			N		N	No
CCR-AP-2R	1/18	94%	0.002-0.02	0.0078	0.004	0.04	0.00022	0.00006708	0.011582	2.974	0.006	mg/L	N	0	4	Y	N	NA		0.002	N			N		N	No
CCR-AP-3R	1/18	94%	0.00022-0.02	0.0096	0.004	0.04	0.000184	0.0000958	0.013842	2.886	0.006	mg/L	N	0	6	Y	N	NA		0.002	N			N		N	No
CCR-AP-4R	0/18	100%	0.002-0.002	0.004	0.004	0.004		0	0	0	0.006	mg/L	N	0	0	N	N	NA		0.002	N			N		N	No
CCR-AP-5R	0/15	100%	0.002-0.02	0.0112	0.004	0.04		0.00010726	0.014646	2.616	0.006	mg/L	N	0	6	N	N	NA		0.002	N			N		N	No
CCR-AP-6	1/18	94%	0.002-0.02	0.00586	0.004	0.013	0.00136	0.00003546	0.008422	2.878	0.006	mg/L	N	0	2	N	N	NA		0.002	N			N		N	No
CCR-AP-7R	2/18	89%	0.002-0.02	0.00566	0.004	0.013	0.00118	0.00003612	0.0085	3	0.006	mg/L	N	0	2	N	N	NA		0.002	N			N		N	No
CCR Appendix-IV: Arsenic, Total (mg/L)																											
CCR-BK-1	12/19	37%	0.001-0.001	0.001882	0.002	0.0033	0.005	5.078E-07	0.0010076	1.0708	0.01	mg/L	N	0	0	Y	N	Stable	Non-parametric				0.0035		0.010		
CCR-BK-2	8/19	58%	0.001-0.001	0.0024	0.002	0.00581	0.007	1.4288E-06	0.0016904	1.4056	0.01	mg/L	N	0	0	N	N	Stable									
CCR-AP-1R	13/19	32%	0.001-0.005	0.00226	0.0016	0.01006	0.0104	0.000003992	0.002826	2.49	0.01	mg/L	N	0	0	Y	N	Stable		0.00500	N			Y		N	No
CCR-AP-2R	13/19	32%	0.001-0.01	0.0036	0.00176	0.02	0.0048	0.000016642	0.00577	3.206	0.01	mg/L	N	0	0	Y	N	Stable		0.00034	Y			N		N	No
CCR-AP-3R	7/19	63%	0.001-0.01	0.00442	0.002	0.02	0.00118	0.00002354	0.006862	3.11	0.01	mg/L	N	0	0	N	N	Stable		0.00100	N			N		N	No
CCR-AP-4R	9/19	53%	0.001-0.005	0.001798	0.002	0.0032	0.00118	0.000002138	0.002068	2.298	0.01	mg/L	N	0	0	N	N	Increase		0.00500	N			Y		N	No
CCR-AP-5R	4/16	75%	0.001-0.01	0.00556	0.002	0.02	0.00114	0.00002712	0.007364	2.652	0.01	mg/L	N	0	0	N	N	NA		0.005	N			Y		N	No
CCR-AP-6	18/19	5%	0.01-0.01	0.00528	0.004	0.01201	0.0106	0.000010954	0.00468	1.7698	0.01	mg/L	N	0	0	Y	N	Decrease		0.00082	Y			N		N	No
CCR-AP-7R	16/19	16%	0.001-0.01	0.00348	0.00174	0.0115	0.0064	0.000010236	0.004524	2.602	0.01	mg/L	N	0	0	Y	N	Stable		0.00500	N			Y		N	No
CCR Appendix-IV: Barium, Total (mg/L)																											
CCR-BK-1	19/19	0%	-	0.0816	0.076	0.1317	0.164	0.0003158	0.02512	0.6152	2	mg/L	N	0	0	Y	N	Stable	Non-parametric				0.150		2.000		
CCR-BK-2	19/19	0%	-	0.088	0.074	0.1283	0.3	0.0013382	0.05174	1.1758	2	mg/L	N	0	0	Y	N	Stable									
CCR-AP-1R	19/19	0%	-	0.0514	0.044	0.0889	0.094	0.0002254	0.02122	0.8264	2	mg/L	N	0	0	N	N	Increase		0.047	Y			N		N	No
CCR-AP-2R	19/19	0%	-	0.0776	0.084	0.0986	0.102	0.0001834	0.019152	0.493	2	mg/L	N	0	0	N	N	Stable		0.049	Y			N		N	No
CCR-AP-3R	19/19	0%	-	0.05	0.034	0.1024	0.32	0.00212	0.06512	2.604	2	mg/L	N	0	0	Y	N	Stable		0.021	Y			N		N	No
CCR-AP-4R	19/19	0%	-	0.1568	0.166	0.223	0.24	0.0011306	0.04756	0.6064	2	mg/L	N	0	0	N	N	Stable		0.046	Y			N		N	No
CCR-AP-5R	16/16	0%	-	0.0336	0.032	0.0409	0.042	0.000011412	0.004778	0.2842	2	mg/L	N	0	0	Y	N	Stable		0.020	Y			N		N	No
CCR-AP-6	18/19	5%	0.1-0.1	0.0462	0.036	0.098	0.08	0.000773	0.03932	1.7016	2	mg/L	N	0	0	Y	N	Decrease		0.014	Y			N		N	No
CCR-AP-7R	19/19	0%	-	0.0692	0.064	0.1039	0.126	0.000204	0.0202	0.584	2	mg/L	N	0	0	N	N	Decrease		0.029	Y			N		N	No
CCR Appendix-IV: Beryllium, Total (mg/L)																											
CCR-BK-1	1/18	94%	0.001-0.001	0.001902	0.002	0.002	0.00024	8.358E-08	0.0004088	0.4298	0.004	mg/L	N	0	0	N	N	NA	Non-parametric				0.001		0.004		
CCR-BK-2	2/18	89%	0.001-0.001	0.001842	0.002	0.002	0.0008	1.0518E-07	0.0004586	0.498	0.004	mg/L	N	0	0	N	N	NA									
CCR-AP-1R	3/18	83%	0.001-0.001	0.001716	0.002	0.002	0.00038	2.084E-07	0.0006456	0.7524	0.004	mg/L	N	0	0	N	N	NA		0.001	N			N		N	No
CCR-AP-2R	4/18	78%	0.001-0.01	0.00364	0.002	0.02	0.00054	0.000017436	0.005906	3.246	0.004	mg/L	N	0	4	Y	N	NA		0.001	N			N		N	No
CCR-AP-3R	2/18	89%	0.001-0.01	0.00382	0.002	0.02	0.00042	0.00001696	0.005824	3.05	0.004	mg/L	N	0	4	Y	N	NA		0.001	N			N		N	No
CCR-AP-4R	0/18	100%	0.001-0.001	0.002	0.002	0.002		0	0	0	0.004	mg/L	N	0	0	N	N	NA		0.001	N			N		N	No
CCR-AP-5R	2/15	87%	0.001-0.01	0.00416	0.002	0.02	0.00032	0.00002014	0.006348	3.05	0.004	mg/L	N	0	4	Y	N	NA		0.001	N			N		N	No
CCR-AP-6	3/18	83%	0.001-0.001	0.001782	0.002	0.002	0.00102	1.3382E-07	0.0005174	0.581	0.004	mg/L	N	0	0	N	N	NA		0.001	N			N		N	No
CCR-AP-7R	2/18	89%	0.001-0.001	0.001818	0.002	0.002	0.00048	1.3564E-07	0.0005208	0.5728	0.004	mg/L	N	0	0	N	N	NA		0.001	N			N		N	No
CCR Appendix-IV: Cadmium, Total (mg/L)																											
CCR-BK-1	0/19	100%	0.001-0.001	0.002	0.002	0.002		0	0	0	0.005	mg/L	N	0	0	N	N	NA	Non-parametric				0.001		0.005		
CCR-BK-2	0/19	100%	0.001-0.001	0.002	0.002	0.002		0	0	0	0.005	mg/L	N	0	0	N	N	NA									
CCR-AP-1R	4/19	79%	0.001-0.001	0.001664	0.002	0.002	0.00056	2.194E-07	0.0006626	0.7966	0.005	mg/L	N	0	0	N	N	NA		0.0010	N			N		N	No
CCR-AP-2R	13/19	32%	0.001-0.01	0.00312	0.00112	0.02	0.0016	0.000017342	0.00589	3.768	0.005	mg/L	N	0	4	y	N	Stable		0.0010	N			N		N	No
CCR-AP-3R	11/19	42%	0.001-0.01	0.00394	0.00058	0.02	0.0006	0.00002506	0.00708	3.594	0.005	mg/L	N	0	6	N	N	Stable		0.0010	N			N		N	No
CCR-AP-4R	2/19	89%	0.001-0.001	0.001818	0.002	0.002	0.00036	1.4626E-07	0.0005408	0.5952	0.005	mg/L	N	0	0	y	N	NA		0.0010	N			N		N	No
CCR-AP-5R	3/16	81%	0.001-0.01	0.00508	0.002	0.02	0.00066	0.00002674	0.007314	2.884	0.005	mg/L	N	0	6	y	N	NA		0.0010	N			N		N	No
CCR-AP-6	2/19	89%	0.001-0.01	0.00278	0.002	0.0047	0.00042	0.0000086	0.004148	2.992	0.005	mg/L	N	0	2	y	N	NA		0.0010	N			N		N	No
CCR-AP-7R	7/19	63%	0.001-0.01	0.00234	0.002	0.0047	0.00064	0.000009208	0.004292	3.662	0.005	mg/L	N	0	2	N	N	Stable		0.0010	N			N		N	No
CCR Appendix-IV: Chromium, Total (mg/L)																											
CCR-BK-1	13/19	32%	0.002-0.002	0.00456	0.004	0.00738	0.0152	0.000004206	0.0029	1.2714	0.1	mg/L	N	0	0	Y	N	Stable	Non-parametric				0.009		0.1		
CCR-BK-2	6/19	68%	0.002-0.002	0.0056	0.004	0.0106	0.0174	0.00000632	0.003556	1.2682	0.1	mg/L	N	0	0	N	N	Stable									
CCR-AP-1R	2/19	89%	0.002-0.005	0.00614	0.004	0.0145	0.04	0.00003372	0.008214	2.672	0.1	mg/L	N	0	0	y	N	NA		0.0050	N			N		N	No
CCR-AP-2R	3/19	84%	0.002-0.02	0.0077	0.004	0.04	0.0072	0.0000636	0.011278	2.928	0.1	mg/L	N	0	0	y	N	NA		0.0020	N			N		N	No
CCR-AP-3R	3/19	84%	0.002-0.02	0.0093	0.004	0.04	0.0017	0.0000912	0.013506	2.904	0.1	mg/L	N	0	0	y	N	NA		0.0022	N			N		N	No
CCR-AP-4R	16/19	16%	0.0025-0.005	0.0052	0.005	0.00796	0.0076	1.5568E-06	0.0017646	0.6786	0.1	mg/L	N	0	0	N	N	Increase		0.0050	N			N		N	No
CCR-AP-5R	1/16	94%	0.002-0.02	0.01096	0.004	0.04	0.00124	0.00010188	0.014274	2.606	0.1	mg/L	N	0	0	N	N	NA		0.0050	N			N		N	No
CCR-AP-6	5/19	74%	0.002-0.02	0.00648	0.004	0.01824	0.0144	0.00003626	0.008514	2.632	0.1	mg/L	N	0	0	y	N	NA		0.0050	N			N		N	No
CCR-AP-7R	10/19	47%	0.002-0.02	0.0068	0.004	0.01671	0.0126	0.00003514	0.008384	2.468	0.1	mg/L	N	0	0	y	N	Stable		0.0050	N			N		N	No
CCR Appendix-IV: Cobalt, Total (mg/L)																											
CCR-BK-1	15/19	21%	0.0005-0.0005	0.000727	0.0005	0.00226	0.0028	4.938E-07	0.0007027	0.9661	0.006	mg/L	N	0	0	Y	N	Decrease	Non-parametric				0.006		0.006		
CCR-BK-2	9/19	53%	0.0005-0.0005	0.000858	0.0005	0.00197	0.0062	0.000001843	0.001358	1.582	0.006	mg/L	Y	1	0	Y	N	Stable									
CCR-AP-1R	16/19	16%	0.0005-0.0005	0.00165	0.0005	0.00803	0.011	0.000008031	0.002834	1.713	0.006	mg/L	Y	2	0	Y	N	Decrease		0.00041	Y			N		N	No
CCR-AP-2R	19/19	0%	-	0.00284	0.0026	0.00367	0.0079	0.000001631	0.001277	0.4494	0.006	mg/L	Y	1	0	Y	N	Stable		0.00260	Y			N		N	No
CCR-AP-3R	14/19	26%	0.0005-0.005	0.00103	0.0005	0.005	0.0019	0.000002194	0.001481	1.435	0.006	mg/L	N	0	0	Y	N	Stable		0.00048	Y			N		N	No
CCR-AP-4R	9/19	53%	0.0005-0.001	0.00058	0.0005	0.00123	0.0033	4.843E-07	0.0006959	1.2	0.006	mg/L	N	0	0	Y	N	Stable		0.00100	N			N		N	No
CCR-AP-5R	6/16	62%	0.0005-0.005	0.00129	0.0005	0.005	0.00081	0.000003448	0.001857	1.439	0.006	mg/L	N	0	0	N	N	Stable		0.00100	N			N		N	No
CCR-AP-6	19/19	0%	-	0.00194	0.0012	0.00554	0.0068	0.000003208	0.001791	0.925	0.006	mg/L	Y	1	0	N	N	Decrease		0.00130	Y			N		N	No
CCR-AP-7R	18/19	5%	0.005-0.005	0.00137	0.00058	0.0041	0.004	0.000002097	0.001448	1.055	0.006	mg/L	N	0	0	N	N	Stable		0.00034	Y			N		N	No
CCR Appendix-III/IV: Fluoride (mg/L)																											
CCR-BK-1	17/19	11%	0.23-0.23	0.642	0.66	0.743	0.76	0.005134	0.10134	0.3162	4	mg/L	N	0	0	Y	N	Stable	Non-parametric				0.380		4.000		
CCR-BK-2	17/19	11%	0.11-0.12	0.318	0.3	0.459	0.68	0.006022	0.10974	0.6882	4	mg/L	N	0	0	N	N	Stable									
CCR-AP-1R	16/19	16%	0.5-5	1.418	1	2.74	1.46	2.152	2.074	2.926	4	mg/L	N	0	2	Y	N	Stable		0.44	Y			Y		N	No
CCR-AP-2R	16/19	16%	0.5-0.5	1.07	1	1.86	2.2	0.08266	0.4066	0.7596	4	mg/L	N	0	0	N	N	Stable		0.35	Y			N		N	No
CCR-AP-3R	19/19	0%	-	2.22	2	3.23	3.4	0.2182	0.6606	0.596	4	mg/L	N	0	0	N	N	Stable		0.79	Y			Y		N	No
CCR-AP-4R	19/19	0%	-	0.774	0.8	0.99	1.16	0.018116	0.19034	0.4914	4	mg/L	N	0	0	Y	N	Stable		0.35	Y			N		N	No
CCR-AP-5R	14/16	12%	0.5-0.5	0.718	0.63	1.098	1.12	0.02948	0.2428	0.6756	4	mg/L	N	0	0	N	N	Stable		0.51	Y			Y		N	No
CCR-AP-6	16/19	16%	0.1-0.17	0.398	0.38	0.659	0.88	0.011188	0.1496	0.75	4	mg/L	N	0	0	Y	N	Stable		0.22	Y			N		N	No
CCR-AP-7R	15/19	21%	0.17-0.5	0.464	0.4	1.015	1.1	0.0249	0.2232	0.9608	4	mg/L	N	0	0	Y	N	Stable		0.21	Y			N		N	No

Attachment A
Assessment Monitoring Statistical Summary - November 2022
A.B. Brown Generating Station
Ash Pond
Prepared: 13 March 2023

														MCL Comparison					Inter-well Analysis					GWPS		
Location ID	Frequency of Detection	Percent Non-Detect	Range of Non-Detect	Mean	50th Percentile (Median)	95th Percentile	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL/RSL	Report Result Unit	Detection Exceedances (Y/N)	Number of Detection Exceedances	Number of Non-Detection Exceedances	Outlier Presence	Outlier Removed	Trend	Distribution Group	November 2022 Concentrations (mg/L)	Detect?	Lower Confidence Level (LCL)	Upper Tolerance Limit (mg/L)	SSI (Exceedance above Background at Individual Well)	Groundwater Protection Standard (Higher of MCL/RSL or Upper Tolerance Limit) (mg/L)	Exceedance above GWPS at Individual Well	SSL
CCR Appendix-IV: Lead, Total (mg/L)																												
CCR-BK-1	16/19	16%	0.001-0.001	0.0011	0.00104	0.00203	0.0022	0.000000282	0.0007508	1.3646	0.015	mg/L	N	0	0	N	N	Stable	Non-parametric				0.011		0.015		
CCR-BK-2	7/19	63%	0.001-0.001	0.0033	0.002	0.00806	0.022	0.000010912	0.004672	2.83	0.015	mg/L	N	0	0	Y	N	Stable										
CCR-AP-1R	5/19	74%	0.001-0.001	0.001692	0.002	0.00209	0.0026	2.448E-07	0.0006998	0.8274	0.015	mg/L	N	0	0	N	N	Stable		0.00100	N			N		N	No
CCR-AP-2R	8/19	58%	0.001-0.01	0.00376	0.002	0.02	0.0104	0.000018298	0.00605	3.214	0.015	mg/L	N	0	0	N	N	Stable		0.00100	N			N		N	No
CCR-AP-3R	5/19	74%	0.001-0.01	0.00446	0.002	0.02	0.00144	0.00002346	0.006848	3.068	0.015	mg/L	N	0	0	Y	N	NA		0.00100	N			N		N	No
CCR-AP-4R	6/19	68%	0.001-0.001	0.001466	0.002	0.002	0.00046	3.196E-07	0.0007996	1.091	0.015	mg/L	N	0	0	N	N	NA		0.00100	N			N		N	No
CCR-AP-5R	2/16	88%	0.001-0.01	0.00412	0.002	0.02	0.0014	0.000018676	0.006112	2.968	0.015	mg/L	N	0	0	Y	N	NA		0.00100	N			N		N	No
CCR-AP-6	9/19	53%	0.001-0.01	0.00324	0.002	0.0115	0.01	0.000010734	0.004634	2.862	0.015	mg/L	N	0	0	Y	N	Stable		0.00100	N			N		N	No
CCR-AP-7R	16/19	16%	0.001-0.01	0.00246	0.00082	0.00861	0.0066	0.000010024	0.004478	3.632	0.015	mg/L	N	0	0	Y	N	Stable		0.00100	N			N		N	No
CCR Appendix-IV: Lithium, Total (mg/L)																												
CCR-BK-1	5/19	74%	0.005-0.05	0.0241	0.0065	0.05	0.0086	0.0005172	0.02274	0.9445	0.04	mg/L	N	0	8	N	N	NA	Non-parametric				0.050		0.050		
CCR-BK-2	4/19	79%	0.005-0.05	0.0285	0.05	0.05	0.0043	0.0005428	0.0233	0.8168	0.04	mg/L	N	0	10	N	N	NA										
CCR-AP-1R	9/19	53%	0.005-0.05	0.0215	0.012	0.0516	0.066	0.0004499	0.02121	0.9869	0.04	mg/L	Y	1	4	N	N	Stable		0.003	Y			N		N	No
CCR-AP-2R	19/19	0%	-	0.0452	0.05	0.0625	0.067	0.0002495	0.01579	0.3498	0.04	mg/L	Y	11	0	N	N	Decrease		0.027	Y			N		N	No
CCR-AP-3R	19/19	0%	-	0.075	0.076	0.091	0.1	0.0001416	0.0119	0.1586	0.04	mg/L	Y	19	0	N	N	Stable	Normal	0.059	Y	0.071		Y		Y	Yes[1]
CCR-AP-4R	1/19	95%	0.005-0.05	0.0287	0.05	0.05	0.0011	0.0005323	0.02307	0.8031	0.04	mg/L	N	0	10	N	N	NA		0.008	N			N		N	No
CCR-AP-5R	13/16	19%	0.05-0.05	0.0233	0.0175	0.05	0.023	0.0001856	0.01362	0.5843	0.04	mg/L	N	0	3	N	N	Stable		0.014	Y			N		N	No
CCR-AP-6	18/19	5%	0.005-0.005	0.0328	0.036	0.043	0.043	0.0001045	0.01022	0.3112	0.04	mg/L	Y	6	0	Y	N	Decrease		0.023	Y			N		N	No
CCR-AP-7R	18/19	5%	0.05-0.05	0.024	0.022	0.0356	0.034	0.00006056	0.007782	0.3242	0.04	mg/L	N	0	1	Y	N	Stable		0.021	Y			N		N	No
CCR Appendix-IV: Mercury, Total (mg/L)																												
CCR-BK-1	0/18	100%	0.0002-0.0002	0.0004	0.0004	0.0004		1.452E-22	1.7042E-11	8.52E-08	0.002	mg/L	N	0	0	N	N	NA	Non-parametric				0.0002		0.002		
CCR-BK-2	2/18	89%	0.0002-0.0002	0.000388	0.0004	0.0004	0.0004	1.0794E-09	0.00004646	0.239	0.002	mg/L	N	0	0	N	N	NA										
CCR-AP-1R	1/18	94%	0.0002-0.0002	0.000388	0.0004	0.0004	0.00017	1.4274E-09	0.00005344	0.276	0.002	mg/L	N	0	0	Y	Y	NA		0.0002	N			N		N	No
CCR-AP-2R	1/18	94%	0.0002-0.0002	0.000386	0.0004	0.0004	0.00016	1.5542E-09	0.00005576	0.2884	0.002	mg/L	N	0	0	Y	Y	NA		0.0002	N			N		N	No
CCR-AP-3R	8/18	56%	0.0002-0.0002	0.00037	0.0004	0.000565	0.00106	1.9204E-08	0.00019598	1.0618	0.002	mg/L	N	0	0	Y	N	Increase		0.0002	N			N		N	No
CCR-AP-4R	0/18	100%	0.0002-0.0002	0.0004	0.0004	0.0004		1.452E-22	1.7042E-11	8.52E-08	0.002	mg/L	N	0	0	N	N	NA		0.0002	N			N		N	No
CCR-AP-5R	0/15	100%	0.0002-0.0002	0.0004	0.0004	0.0004		1.1684E-22	1.5286E-11	7.644E-08	0.002	mg/L	N	0	0	N	N	NA		0.0002	N			N		N	No
CCR-AP-6	1/18	94%	0.0002-0.0002	0.000384	0.0004	0.0004	0.00011	2.27E-09	0.00006738	0.351	0.002	mg/L	N	0	0	N	N	NA		0.0002	N			N		N	No
CCR-AP-7R	0/18	100%	0.0002-0.0002	0.0004	0.0004	0.0004		1.452E-22	1.7042E-11	8.52E-08	0.002	mg/L	N	0	0	N	N	NA		0.0002	N			N		N	No
CCR Appendix-IV: Molybdenum, Total (mg/L)																												
CCR-BK-1	17/19	11%	0.005-0.005	0.00177	0.0013	0.005	0.0034	0.000001806	0.001344	0.7578	0.1	mg/L	N	0	0	N	N	Decrease	Non-parametric				0.005		0.1		
CCR-BK-2	9/19	53%	0.005-0.005	0.00315	0.005	0.005	0.0025	0.000004218	0.002054	0.6522	0.1	mg/L	N	0	0	N	N	Stable										
CCR-AP-1R	18/19	5%	0.005-0.005	0.00425	0.0045	0.00524	0.0074	0.000001404	0.001185	0.2786	0.1	mg/L	N	0	0	Y	N	Stable		0.0049	Y			N		N	No
CCR-AP-2R	19/19	0%	-	1.66	1.6	2	2	0.04813	0.2194	0.1323	0.1	mg/L	Y	19	0	Y	N	Stable	Normal	1.4000	Y	1.57		Y		Y	Yes[1]
CCR-AP-3R	19/19	0%	-	0.879	0.89	1	1	0.009343	0.09666	0.11	0.1	mg/L	Y	19	0	N	N	Stable	Normal	0.7300	Y	0.84		Y		Y	Yes[1]
CCR-AP-4R	18/19	5%	0.005-0.005	0.00237	0.0016	0.00538	0.0088	0.000003705	0.001925	0.8127	0.1	mg/L	N	0	0	N	N	Decrease		0.0014	Y			N		N	No
CCR-AP-5R	16/16	0%	-	0.0542	0.0545	0.098	0.11	0.0006226	0.02495	0.4605	0.1	mg/L	Y	1	0	N	N	Increase		0.1100	Y	0.043		Y		N	No
CCR-AP-6	19/19	0%	-	0.00792	0.0066	0.0156	0.021	0.00002037	0.004513	0.5697	0.1	mg/L	N	0	0	Y	N	Decrease		0.0035	Y			N		N	No
CCR-AP-7R	4/19	79%	0.005-0.05	0.00652	0.005	0.0095	0.0016	0.0001137	0.01066	1.634	0.1	mg/L	N	0	0	Y	N	NA		0.0050	N			N		N	No
CCR Appendix-IV: Radium-226 & 228 (pCi/L)																												
CCR-BK-1	12/19	37%	0.121-0.509	1.048	0.914	2.09	4.92	0.4864	0.9862	1.8812	5	pCi/L	N	0	0	Y	N	Increase	Non-parametric				3.1		5.0		
CCR-BK-2	4/19	79%	-0.0961-2.74	1.268	0.434	5.598	6.26	1.6788	1.8324	2.89	5	pCi/L	N	0	0	N	N	NA										
CCR-AP-1R	13/19	32%	0.0879-1.33	1.308	1.304	2.184	2.1	0.2378	0.6896	1.0548	5	pCi/L	N	0	0	N	N	Stable		0.91	Y			N		N	No
CCR-AP-2R	17/19	11%	0.339-0.816	1.524	1.426	2.812	3.1	0.18262	0.6044	0.7928	5	pCi/L	N	0	0	N	N	Stable		0.82	N			N		N	No
CCR-AP-3R	15/19	21%	0.29-0.471	1.292	1.13	2.344	2.48	0.14616	0.5406	0.837	5	pCi/L	N	0	0	N	N	Stable		0.47	Y			N		N	No
CCR-AP-4R	6/19	68%	0.0118-0.564	1.642	0.866	3.836	15.86	5.872	3.426	4.174	5	pCi/L	Y	2	0	Y	N	Stable		0.18	Y			N		N	No
CCR-AP-5R	11/16	31%	0.0606-0.372	0.896	0.889	1.4332	1.486	0.05092	0.3192	0.712	5	pCi/L	N	0	0	Y	N	Increase		0.70	Y			N		N	No
CCR-AP-6	8/19	58%	0.0546-0.399	1.166	0.602	2.994	9.54	2.148	2.072	3.554	5	pCi/L	N	0	0	N	N	Stable		0.14	Y			N		N	No
CCR-AP-7R	11/19	42%	0.0856-0.451	0.948	0.882	1.6942	1.706	0.0981	0.443	0.9344	5	pCi/L	N	0	0	N	N	Stable		0.29	N			N		N	No
CCR Appendix-IV: Selenium, Total (mg/L)																												
CCR-BK-1	3/19	84%	0.005-0.005	0.00858	0.01	0.01	0.00134	0.000005494	0.003314	0.7724	0.05	mg/L	N	0	0	Y	N	NA	Non-parametric				0.005		0.050		
CCR-BK-2	2/19	89%	0.005-0.005	0.0091	0.01	0.01	0.00196	0.00000355	0.002664	0.5856	0.05	mg/L	N	0	0	Y	N	NA										
CCR-AP-1R	1/19	95%	0.005-0.005	0.00952	0.01	0.01	0.00098	0.000002084	0.002042	0.4286	0.05	mg/L	N	0	0	N	N	NA		0.0050	N			N		N	No
CCR-AP-2R	4/19	79%	0.005-0.05	0.01762	0.01	0.1	0.00166	0.0004164	0.02886	3.274	0.05	mg/L	N	0	4	Y	N	NA		0.0050	N			N		N	No
CCR-AP-3R	17/19	11%	0.05-0.05	0.0332	0.032	0.1	0.08	0.0004506	0.03002	1.8056	0.05	mg/L	N	0	4	N	N	Stable		0.0033	Y			N		N	No
CCR-AP-4R	4/19	79%	0.005-0.005	0.00826	0.01	0.01	0.0028	0.00000588	0.00343	0.8302	0.05	mg/L	N	0	0	Y	N	NA		0.0050	N			N		N	No
CCR-AP-5R	1/16	94%	0.005-0.05	0.0264	0.01	0.1	0.0017	0.000648	0.036	2.732	0.05	mg/L	N	0	6	N	N	NA		0.0050	N			N		N	No
CCR-AP-6	1/19	95%	0.005-0.05	0.01428	0.01	0.0235	0.0013	0.0002116	0.02058	2.882	0.05	mg/L	N	0	2	Y	N	NA		0.0050	N			N		N	No
CCR-AP-7R	2/19	89%	0.005-0.05	0.01386	0.01	0.0235	0.00198	0.000215	0.02074	2.992	0.05	mg/L	N	0	2	Y	N	NA		0.0050	N			N		N	No
CCR Appendix-IV: Thallium, Total (mg/L)																												
CCR-BK-1	2/18	89%	0.001-0.001	0.001812	0.002	0.002	0.00054	1.485E-07	0.000545	0.6016	0.002	mg/L	N	0	0	N	N	NA	Non-parametric				0.001		0.002		
CCR-BK-2	3/18	83%	0.001-0.001	0.001714	0.002	0.002	0.00038	0.000000211	0.0006498	0.758	0.002	mg/L	N	0	0	N	N	NA										
CCR-AP-1R	4/18	78%	0.001-0.001	0.001642	0.002	0.002	0.00108	2.486E-07	0.000705	0.8584	0.002	mg/L	N	0	0	N	N	NA		0.001	Y			N		N	No
CCR-AP-2R	2/18	89%	0.001-0.01	0.0038	0.002	0.02	0.0003	0.000017038	0.005838	3.074	0.002	mg/L	N	0	4	Y	N	NA		0.001	N			N		N	No
CCR-AP-3R	2/18	89%	0.001-0.01	0.00482	0.002	0.02	0.00032	0.00002388	0.00691	2.872	0.002	mg/L	N	0	6	N	N	NA		0.00100	N			N		N	No
CCR-AP-4R	3/18	83%	0.001-0.001	0.001716	0.002	0.002	0.00044	2.106E-07	0.000649	0.7566	0.002	mg/L	N	0	0	N	N	NA		0.000	Y			N		N	No
CCR-AP-5R	1/15	93%	0.001-0.01	0.00548	0.002	0.02	0.000152	0.00002738	0.0074	2.702	0.002	mg/L	N	0	6	N	N	NA		0.001	N			N		N	No
CCR-AP-6	5/18	72%	0.001-0.01	0.0025	0.002	0.0065	0.0004	0.000009574	0.004376	3.488	0.002	mg/L	N	0	2	Y	N	NA		0.001	N			N		N	No
CCR-AP-7R	1/18	94%	0.001-0.01	0.0029	0.002	0.0065	0.000108	0.000008948	0.00423	2.922	0.002	mg/L	N	0	2	Y	N	NA		0.001	N			N		N	No

Notes:
[1] - *Groundwater protection standards compared against lower confidence limit to determine statistically significant levels*
CCR - Coal Combustion Residuals
MCL - maximum concentration limit
mg/L - milligrams per liter
NA - not applicable
pCi/L - picocuries per liter
RSL - Regional Screening Level
SSI - Statistically Significant Increase
SSL - Statistically Signficant Level

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TECHNICAL MEMORANDUM

25 September 2023
File No. 0129420-027

TO: Southern Indiana Gas and Electric Company

FROM: Haley & Aldrich, Inc.
Todd Plating, Senior Project Manager
Steven F. Putrich, P.E., Project Principal

SUBJECT: Statistical Evaluation of the May 2023 Semi-Annual Groundwater Assessment Monitoring Data
Southern Indiana Gas and Electric Company
Ash Pond
A.B. Brown Generating Station; Posey County, Indiana

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and § 257.95 (Rule), this memorandum summarizes the statistical evaluation of the analytical results for the May 2023 semi-annual assessment monitoring event for the A.B. Brown Generating Station Ash Pond. Haley & Aldrich, Inc. (Haley & Aldrich) completed this statistical evaluation to determine if Appendix IV groundwater monitoring constituents have been detected in downgradient wells at statistically significant levels (SSL) greater than the Groundwater Protection Standards (GWPS), consistent with the requirements in 40 CFR § 257.95.

Methods used during this statistical analysis are described in Haley & Aldrich's 2017 *Statistical Data Analysis Plan for the A.B Brown Generating Station Ash Pond*. Applicable performance standards described in 40 CFR § 257.93 (g) are summarized below:

- 40 CFR § 257.93 (g) (1) – Data set distribution was evaluated using basic summary statistics, graphical methods, and the Shapiro-Wilks Test of Normality. Parametric methods were used where normal distributions were identified. Those data sets were evaluated for outliers using box plots, Dixon's test and Rosner's test. Outlier identification and data set distribution groups are summarized in Attachment A.
- 40 CFR § 257.93 (g) (2) – Not applicable
- 40 CFR § 257.93 (g) (3) – Not applicable
- 40 CFR § 257.93 (g) (4) – Levels of confidence and additional supporting information for the use of tolerance intervals and prediction limits are included in Attachment A.

- 40 CFR § 257.93 (g) (5) – Non-detect values were accounted for by simple substitution, where the detection limit replaced the non-detect result. Non-detect values are identified and summarized in Attachment A.
- 40 CFR § 257.93 (g) (6) – Time series plots for groundwater monitoring wells included in this evaluation were reviewed to identify potential seasonal variability. No additional statistics to account for seasonality of spatial variability were necessary.

Data from the groundwater sampling event for the downgradient monitoring wells (CCR-AP-1R through CCR-AP-5R, CCR-AP-6, and CCR-AP-7R) were compared to the GWPS established from the background dataset for the upgradient monitoring wells (CCR-BK-1 and CCR-BK-2) for detected Appendix IV constituents. GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level, or background concentration. The results of the assessment monitoring statistical evaluation are discussed below and provided in Attachment A.

Development of Groundwater Protection Standards

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). Haley & Aldrich certified the tolerance limit (TL) as the statistical method used for developing background concentration for the GWPS on 14 January 2019. As noted above, the GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level, or background concentration. The most recent groundwater sampling result from each compliance well was compared to the GWPS to determine if additional statistical testing is warranted.

STATISTICAL EVALUATION

An interwell statistical evaluation was used to identify SSLs. An interwell evaluation compares the most recent values from downgradient compliance wells to a background dataset composed of upgradient well data. Because the CCR unit is in assessment monitoring, no statistical evaluations were conducted on Appendix III (detection monitoring) constituents.

The parametric TL method was used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or data normalized via a transformation of the sample background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using the background dataset for detected Appendix IV constituents using parametric TL. If an Appendix IV constituent concentration from the May 2023

sampling event was greater than the GWPS, the lower confidence limit (LCL) for the downgradient well constituent was used to evaluate if an SSL was indicated. The LCL is the lower end of the confidence interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and United States Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample locations were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset was evaluated to determine the method for UTL calculation. The background concentrations were periodically updated per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009*.

TREND SUMMARY

Mann-Kendall trend analyses were performed on data sets of sufficient sample size. Results of the trend analysis are included in Attachment A. In summary, 92 percent of trends analyzed are identified as stable or decreasing. Molybdenum has been previously identified at SSLs. An increasing trend in molybdenum concentration was identified at CCR-AP-2R. Lithium has been previously identified at SSLs. No increasing trends for lithium were identified in the compliance monitoring well network.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the May 2023 assessment monitoring event were compared to their respective GWPS (Attachment A). A sample concentration greater than the GWPS is considered to represent an SSL. A summary of SSLs and trends is provided in Table 1 below. Based on previous compliance sampling events and statistical evaluations, interwell comparisons were utilized for downgradient wells and constituents. Based on this statistical evaluation an SSL greater than the GWPS remains at the Ash Pond for lithium and molybdenum. As a result, the Ash Pond will remain in Assessment Monitoring.

Table 1: Statistically Significant Level Summary				
Location ID	**Trend**	**Constituent**	**Newly Identified SSLs**	**Concentration (mg/L)**
CCR-AP-3R	Stable	Lithium	No	0.075
CCR-AP-2R	Increasing	Molybdenum	No	1.20
CCR-AP-3R	Stable	Molybdenum	No	0.69
Notes: *mg/L = milligrams per liter*				

Enclosure

Attachment A – Assessment Monitoring Statistical Analysis Summary

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ATTACHMENT A
Assessment Monitoring Statistical Analysis Summary

Attachment A
Assessment Monitoring Statistical Summary - May 2023
A.B. Brown Generating Station
Ash Pond
Prepared: 25 September 2023

													MCL Comparison						Inter-well Analysis					GWPS		
Location ID	Frequency of Detection	Percent Non-Detect	Range of Non-Detect	Mean	50th Percentile (Median)	95th Percentile	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL/RSL	Report Result Unit	Detection Exceedances (Y/N)	Number of Detection Exceedances	Outlier Detected	Outlier Removed	Trend	Distribution Group	May 2023 Concentrations (mg/L)	Detect?	Lower Confidence Level (LCL) (mg/L)	Upper Tolerance Limit	SSI (Exceedance above Background at Individual Well)	GWPS (Higher of MCL/RSL or Upper Tolerance Limit) (mg/L)	Exceedance above GWPS at Individual Well	SSL
CCR Appendix-IV: Antimony, Total (mg/L)																										
CCR-BK-1	2/19	89%	0.002-0.002	0.00364	0.004	0.004	0.0009	5.988E-07	0.0010944	0.6026	0.006	mg/L	N	0	N	N	NA	Non-parametric				0.002		0.006		
CCR-BK-2	1/19	95%	0.002-0.002	0.00384	0.004	0.004	0.00096	2.366E-07	0.000688	0.3582	0.006	mg/L	N	0	N	N	NA									
CCR-AP-1R	1/19	95%	0.002-0.002	0.00386	0.004	0.004	0.0014	1.7308E-07	0.0005884	0.3046	0.006	mg/L	N	0	N	N	NA		0.002	N			N		N	No
CCR-AP-2R	1/19	95%	0.002-0.02	0.0076	0.004	0.04	0.00022	0.00006382	0.011298	2.976	0.006	mg/L	N	0	Y	N	NA		0.002	N			N		N	No
CCR-AP-3R	1/19	95%	0.00022-0.02	0.0093	0.004	0.04	0.000184	0.00009142	0.013522	2.91	0.006	mg/L	N	0	Y	N	NA		0.002	N			N		N	No
CCR-AP-4R	0/19	100%	0.002-0.002	0.004	0.004	0.004		0	0	0	0.006	mg/L	N	0	N	N	NA		0.002	N			N		N	No
CCR-AP-5R	1/16	94%	0.002-0.02	0.01062	0.004	0.04	0.00188	0.00010296	0.01435	2.704	0.006	mg/L	N	0	N	N	NA		0.001	Y			N		N	No
CCR-AP-6	1/19	95%	0.002-0.02	0.00576	0.004	0.0094	0.00136	0.00003364	0.008202	2.85	0.006	mg/L	N	0	N	N	NA		0.002	N			N		N	No
CCR-AP-7R	2/19	89%	0.002-0.02	0.00558	0.004	0.0094	0.00118	0.00003424	0.008276	2.968	0.006	mg/L	N	0	N	N	NA		0.002	N			N		N	No
CCR Appendix-IV: Arsenic, Total (mg/L)																										
CCR-BK-1	12/20	40%	0.001-0.005	0.00228	0.002	0.00525	0.005	0.000002086	0.002044	1.7858	0.01	mg/L	N	0	Y	N	Stable	Non-parametric				0.0035		0.010		
CCR-BK-2	8/20	60%	0.001-0.005	0.00278	0.002	0.00715	0.007	0.00000276	0.00235	1.6874	0.01	mg/L	N	0	N	N	Stable									
CCR-AP-1R	13/20	35%	0.001-0.005	0.00266	0.00179	0.01002	0.0104	0.000005244	0.003238	2.438	0.01	mg/L	N	0	Y	N	Stable		0.00500	N			N		N	No
CCR-AP-2R	14/20	30%	0.001-0.01	0.00352	0.00184	0.02	0.0048	0.000015836	0.005628	3.19	0.01	mg/L	N	0	Y	N	Stable		0.00110	Y			N		N	No
CCR-AP-3R	7/20	65%	0.001-0.01	0.0047	0.002	0.02	0.00118	0.0000231	0.006796	2.898	0.01	mg/L	N	0	N	N	Stable		0.00500	N			N		N	No
CCR-AP-4R	9/20	55%	0.001-0.005	0.0022	0.002	0.01	0.00118	0.000003666	0.002708	2.452	0.01	mg/L	N	0	N	N	Increase		0.00500	N			N		N	No
CCR-AP-5R	4/17	76%	0.001-0.01	0.00582	0.002	0.02	0.00114	0.00002604	0.007216	2.482	0.01	mg/L	N	0	N	N	NA		0.005	N			N		N	No
CCR-AP-6	19/20	5%	0.01-0.01	0.00526	0.0041	0.01107	0.0106	0.000010398	0.00456	1.7324	0.01	mg/L	N	0	Y	N	Decrease		0.00240	Y			N		N	No
CCR-AP-7R	16/20	20%	0.001-0.01	0.0038	0.00187	0.0105	0.0064	0.000010746	0.004636	2.438	0.01	mg/L	N	0	Y	N	Stable		0.00500	N			N		N	No
CCR Appendix-IV: Barium, Total (mg/L)																										
CCR-BK-1	20/20	0%	-	0.085	0.076	0.1488	0.164	0.0004066	0.02852	0.671	2	mg/L	N	0	Y	N	Stable	Non-parametric				0.150		2.000		
CCR-BK-2	20/20	0%	-	0.0868	0.073	0.1081	0.3	0.0012836	0.05066	1.1674	2	mg/L	N	0	Y	N	Stable									
CCR-AP-1R	20/20	0%	-	0.0532	0.047	0.0883	0.094	0.0002464	0.0222	0.8346	2	mg/L	N	0	N	N	Increase		0.044	Y			N		N	No
CCR-AP-2R	20/20	0%	-	0.0786	0.085	0.0982	0.102	0.00018218	0.019088	0.4856	2	mg/L	N	0	N	N	Stable		0.048	Y			N		N	No
CCR-AP-3R	20/20	0%	-	0.0494	0.034	0.0768	0.32	0.002014	0.06348	2.57	2	mg/L	N	0	Y	N	Stable		0.019	Y			N		N	No
CCR-AP-4R	20/20	0%	-	0.1534	0.163	0.221	0.24	0.0011816	0.04862	0.6334	2	mg/L	N	0	N	N	Stable		0.045	Y			N		N	No
CCR-AP-5R	17/17	0%	-	0.0342	0.032	0.042	0.042	0.00001272	0.005044	0.2956	2	mg/L	N	0	Y	N	Increase		0.021	Y			N		N	No
CCR-AP-6	19/20	5%	0.1-0.1	0.0468	0.037	0.086	0.08	0.0007366	0.03838	1.6404	2	mg/L	N	0	Y	N	Decrease		0.029	Y			N		N	No
CCR-AP-7R	20/20	0%	-	0.0674	0.064	0.1013	0.126	0.0002236	0.02114	0.6276	2	mg/L	N	0	N	N	Decrease		0.017	Y			N		N	No
CCR Appendix-IV: Beryllium, Total (mg/L)																										
CCR-BK-1	1/19	95%	0.001-0.001	0.001908	0.002	0.002	0.00024	7.932E-08	0.0003982	0.4176	0.004	mg/L	N	0	N	N	NA	Non-parametric				0.001		0.004		
CCR-BK-2	2/19	89%	0.001-0.001	0.00185	0.002	0.002	0.0008	1.0014E-07	0.0004476	0.4836	0.004	mg/L	N	0	N	N	NA									
CCR-AP-1R	3/19	84%	0.001-0.001	0.001732	0.002	0.002	0.00038	1.9922E-07	0.0006312	0.7294	0.004	mg/L	N	0	N	N	NA		0.001	N			N		N	No
CCR-AP-2R	4/19	79%	0.001-0.01	0.00356	0.002	0.02	0.00054	0.000016562	0.005756	3.24	0.004	mg/L	N	0	Y	N	NA		0.001	N			N		N	No
CCR-AP-3R	2/19	89%	0.001-0.01	0.00372	0.002	0.02	0.00042	0.000016128	0.00568	3.05	0.004	mg/L	N	0	Y	N	NA		0.001	N			N		N	No
CCR-AP-4R	0/19	100%	0.001-0.001	0.002	0.002	0.002		0	0	0	0.004	mg/L	N	0	N	N	NA		0.001	N			N		N	No
CCR-AP-5R	2/16	88%	0.001-0.01	0.00402	0.002	0.02	0.00032	0.00001899	0.006162	3.062	0.004	mg/L	N	0	Y	N	NA		0.001	N			N		N	No
CCR-AP-6	3/19	84%	0.001-0.001	0.001792	0.002	0.002	0.00102	1.278E-07	0.0005056	0.564	0.004	mg/L	N	0	N	N	NA		0.001	N			N		N	No
CCR-AP-7R	2/19	89%	0.001-0.001	0.001828	0.002	0.002	0.00048	1.2916E-07	0.0005082	0.556	0.004	mg/L	N	0	N	N	NA		0.001	N			N		N	No
CCR Appendix-IV: Cadmium, Total (mg/L)																										
CCR-BK-1	0/20	100%	0.001-0.001	0.002	0.002	0.002		0	0	0	0.005	mg/L	N	0	N	N	NA	Non-parametric				0.001		0.005		
CCR-BK-2	0/20	100%	0.001-0.001	0.002	0.002	0.002		0	0	0	0.005	mg/L	N	0	N	N	NA									
CCR-AP-1R	4/20	80%	0.001-0.001	0.00168	0.002	0.002	0.00056	0.000000211	0.0006496	0.7734	0.005	mg/L	N	0	N	N	NA		0.0010	N			N		N	No
CCR-AP-2R	14/20	30%	0.001-0.01	0.003	0.00101	0.02	0.0016	0.000016588	0.00576	3.832	0.005	mg/L	N	0	y	N	Stable		0.0004	Y			N		N	No
CCR-AP-3R	12/20	40%	0.001-0.01	0.00378	0.00059	0.02	0.00062	0.00002404	0.006934	3.676	0.005	mg/L	N	0	N	N	Stable		0.0003	Y			N		N	No
CCR-AP-4R	2/20	90%	0.001-0.001	0.001826	0.002	0.002	0.00036	1.3956E-07	0.0005284	0.5786	0.005	mg/L	N	0	y	N	NA		0.0010	N			N		N	No
CCR-AP-5R	4/17	76%	0.001-0.01	0.0048	0.002	0.02	0.00066	0.00002574	0.007174	2.99	0.005	mg/L	N	0	y	N	NA		0.0002	Y			N		N	No
CCR-AP-6	2/20	90%	0.001-0.01	0.00274	0.002	0.0029	0.00042	0.000008174	0.004044	2.958	0.005	mg/L	N	0	y	N	NA		0.0010	N			N		N	No
CCR-AP-7R	7/20	65%	0.001-0.01	0.00232	0.002	0.0029	0.00064	0.000008738	0.00418	3.594	0.005	mg/L	N	0	N	N	Stable		0.0010	N			N		N	No
CCR Appendix-IV: Chromium, Total (mg/L)																										
CCR-BK-1	14/20	30%	0.002-0.002	0.0045	0.004	0.00646	0.0152	0.000004022	0.002836	1.2596	0.1	mg/L	N	0	Y	N	Stable	Non-parametric				0.009		0.1		
CCR-BK-2	6/20	70%	0.002-0.005	0.00582	0.004	0.01037	0.0174	0.000006466	0.003596	1.2344	0.1	mg/L	N	0	N	N	Stable									
CCR-AP-1R	2/20	90%	0.002-0.005	0.00634	0.004	0.0115	0.04	0.00003236	0.008046	2.538	0.1	mg/L	N	0	y	N	NA		0.0050	N			N		N	No
CCR-AP-2R	3/20	85%	0.002-0.02	0.00782	0.004	0.04	0.0072	0.00006048	0.010998	2.814	0.1	mg/L	N	0	y	N	NA		0.0050	N			N		N	No
CCR-AP-3R	3/20	85%	0.002-0.02	0.00934	0.004	0.04	0.0017	0.00008652	0.013156	2.818	0.1	mg/L	N	0	y	N	NA		0.0050	N			N		N	No
CCR-AP-4R	17/20	15%	0.0025-0.005	0.00512	0.0048	0.00772	0.0076	1.5392E-06	0.0017546	0.6854	0.1	mg/L	N	0	N	N	Increase		0.0018	Y			N		N	No
CCR-AP-5R	1/17	94%	0.002-0.02	0.0109	0.004	0.04	0.00124	0.00009572	0.013836	2.54	0.1	mg/L	N	0	N	N	NA		0.0050	N			N		N	No
CCR-AP-6	6/20	70%	0.002-0.02	0.00664	0.004	0.01568	0.0144	0.00003466	0.008326	2.508	0.1	mg/L	N	0	y	N	NA		0.0049	Y			N		N	No
CCR-AP-7R	10/20	50%	0.002-0.02	0.00696	0.004	0.01397	0.0126	0.00003358	0.008196	2.358	0.1	mg/L	N	0	y	N	Increase		0.0050	N			N		N	No
CCR Appendix-IV: Cobalt, Total (mg/L)																										
CCR-BK-1	16/20	20%	0.0005-0.0005	0.000704	0.0005	0.00223	0.0028	4.787E-07	0.0006919	0.9828	0.006	mg/L	N	0	Y	N	Decrease	Non-parametric				0.006		0.006		
CCR-BK-2	9/20	55%	0.0005-0.001	0.000865	0.0005	0.001735	0.0062	0.000001747	0.001322	1.528	0.006	mg/L	Y	1	Y	N	Stable									
CCR-AP-1R	16/20	20%	0.0005-0.001	0.00162	0.000555	0.007865	0.011	0.000007629	0.002762	1.703	0.006	mg/L	Y	2	Y	N	Decrease		0.00100	N			N		N	No
CCR-AP-2R	20/20	0%	-	0.00282	0.0026	0.003435	0.0079	0.000001551	0.001246	0.4409	0.006	mg/L	Y	1	Y	N	Stable		0.00250	Y			N		N	No
CCR-AP-3R	15/20	25%	0.0005-0.005	0.001	0.0005	0.005	0.0019	0.000002094	0.001447	1.441	0.006	mg/L	N	0	Y	N	Stable		0.00047	Y			N		N	No
CCR-AP-4R	9/20	55%	0.0005-0.001	0.000601	0.0005	0.001115	0.0033	4.676E-07	0.0006838	1.138	0.006	mg/L	N	0	Y	N	Stable		0.00100	N			N		N	No
CCR-AP-5R	7/17	59%	0.0005-0.005	0.00123	0.0005	0.005	0.00081	0.000003301	0.001817	1.481	0.006	mg/L	N	0	N	N	Stable		0.00021	Y			N		N	No
CCR-AP-6	20/20	0%	-	0.00202	0.00125	0.00547	0.0068	0.000003178	0.001783	0.8827	0.006	mg/L	Y	1	N	N	Stable		0.00360	Y			N		N	No
CCR-AP-7R	18/20	10%	0.001-0.005	0.00135	0.00079	0.00405	0.004	0.000001993	0.001412	1.043	0.006	mg/L	N	0	N	N	Stable		0.00100	N			N		N	No
CCR Appendix-III/IV: Fluoride (mg/L)																										
CCR-BK-1	18/20	10%	0.23-0.23	0.628	0.66	0.741	0.76	0.006796	0.11658	0.3718	4	mg/L	N	0	Y	N	Stable	Non-parametric				0.380		4.000		
CCR-BK-2	17/20	15%	0.1-0.12	0.312	0.29	0.433	0.68	0.006056	0.11006	0.7032	4	mg/L	N	0	N	N	Stable									
CCR-AP-1R	17/20	15%	0.5-5	1.398	1	1.887	1.46	2.046	2.024	2.896	4	mg/L	N	0	Y	N	Stable		0.50	Y			Y		N	No
CCR-AP-2R	17/20	15%	0.5-0.5	1.04	1	1.82	2.2	0.0875	0.4184	0.8046	4	mg/L	N	0	N	N	Stable		0.23	Y			N		N	No
CCR-AP-3R	20/20	0%	-	2.2	1.96	3.21	3.4	0.2098	0.6478	0.5888	4	mg/L	N	0	N	N	Stable		0.94	Y			Y		N	No
CCR-AP-4R	20/20	0%	-	0.766	0.79	0.97	1.16	0.01777	0.18852	0.4916	4	mg/L	N	0	Y	N	Stable		0.31	Y			N		N	No
CCR-AP-5R	15/17	12%	0.5-0.5	0.714	0.64	1.094	1.12	0.02788	0.2362	0.6612	4	mg/L	N	0	N	N	Stable		0.32	Y			N		N	No
CCR-AP-6	17/20	15%	0.1-0.17	0.398	0.37	0.633	0.88	0.010652	0.14596	0.7354	4	mg/L	N	0	Y	N	Stable		0.18	Y			N		N	No
CCR-AP-7R	16/20	20%	0.17-0.5	0.458	0.39	1.005	1.1	0.024	0.2192	0.956	4	mg/L	N	0	Y	N	Stable		0.17	Y			N		N	No

Attachment A
Assessment Monitoring Statistical Summary - May 2023
A.B. Brown Generating Station
Ash Pond
Prepared: 25 September 2023

													MCL Comparison					Inter-well Analysis				GWPS		
Location ID	**Frequency of Detection**	**Percent Non-Detect**	**Range of Non-Detect**	**Mean**	**50th Percentile (Median)**	**95th Percentile**	**Maximum Detect**	**Variance**	**Standard Deviation**	**Coefficient of Variance**	**CCR MCL/RSL**	**Report Result Unit**	**Detection Exceedances (Y/N)**	**Number of Detection Exceedances**	**Outlier Detected**	**Outlier Removed**	**Trend**	**Distribution Group**	**May 2023 Concentrations (mg/L)**	**Detect?**	**Lower Confidence Level (LCL) (mg/L)**	**Upper Tolerance Limit**	**SSI (Exceedance above Background at Individual Well)**	**GWPS (Higher of MCL/RSL or Upper Tolerance Limit) (mg/L)**	**Exceedance above GWPS at Individual Well**	**SSL**
CCR Appendix-IV: Lead, Total (mg/L)																									
CCR-BK-1	16/20	20%	0.001-0.001	0.001146	0.00115	0.00201	0.0022	2.872E-07	0.0007578	1.3232	0.015	mg/L	N	0	N	N	Stable	Non-parametric				0.011		0.015		
CCR-BK-2	7/20	65%	0.001-0.001	0.00324	0.002	0.00642	0.022	0.000010392	0.00456	2.818	0.015	mg/L	N	0	Y	N	Stable									
CCR-AP-1R	5/20	75%	0.001-0.001	0.001708	0.002	0.00203	0.0026	2.346E-07	0.000685	0.8026	0.015	mg/L	N	0	N	N	Stable		0.00100	N			N		N	No
CCR-AP-2R	8/20	60%	0.001-0.01	0.00368	0.002	0.02	0.0104	0.000017436	0.005906	3.212	0.015	mg/L	N	0	N	N	Stable		0.00100	N			N		N	No
CCR-AP-3R	5/20	75%	0.001-0.01	0.00434	0.002	0.02	0.00144	0.0000224	0.006694	3.082	0.015	mg/L	N	0	Y	N	NA		0.00100	N			N		N	No
CCR-AP-4R	6/20	70%	0.001-0.001	0.001492	0.002	0.002	0.00046	3.102E-07	0.0007876	1.0556	0.015	mg/L	N	0	N	N	NA		0.00100	N			N		N	No
CCR-AP-5R	2/17	88%	0.001-0.01	0.004	0.002	0.02	0.0014	0.000017672	0.005944	2.978	0.015	mg/L	N	0	Y	N	NA		0.00100	N			N		N	No
CCR-AP-6	10/20	50%	0.001-0.01	0.00326	0.002	0.0105	0.01	0.000010186	0.004514	2.772	0.015	mg/L	N	0	Y	N	Stable		0.00180	Y			N		N	No
CCR-AP-7R	16/20	20%	0.001-0.01	0.00244	0.00101	0.00727	0.0066	0.000009516	0.004362	3.572	0.015	mg/L	N	0	Y	N	Stable		0.00100	N			N		N	No
CCR Appendix-IV: Lithium, Total (mg/L)																									
CCR-BK-1	6/20	70%	0.005-0.05	0.0233	0.00745	0.05	0.0086	0.0005023	0.02241	0.9621	0.04	mg/L	N	0	N	N	NA	Non-parametric				0.050		0.050		
CCR-BK-2	5/20	75%	0.005-0.05	0.0272	0.02975	0.05	0.0043	0.0005489	0.02343	0.861	0.04	mg/L	N	0	N	N	NA									
CCR-AP-1R	9/20	55%	0.005-0.05	0.0208	0.01095	0.0508	0.066	0.0004353	0.02086	1.002	0.04	mg/L	Y	1	N	N	Decrease		0.008	N			N		N	No
CCR-AP-2R	20/20	0%	-	0.0443	0.047	0.06225	0.067	0.0002511	0.01584	0.3577	0.04	mg/L	Y	11	N	N	Decrease		0.028	Y			N		N	No
CCR-AP-3R	20/20	0%	-	0.075	0.0755	0.0905	0.1	0.0001341	0.01158	0.1544	0.04	mg/L	Y	20	N	N	Stable	Normal	0.075	Y	0.071		Y		Y	Yes
CCR-AP-4R	1/20	95%	0.005-0.05	0.0277	0.029	0.05	0.0011	0.0005258	0.02293	0.8281	0.04	mg/L	N	0	N	N	NA		0.008	N			N		N	No
CCR-AP-5R	14/17	18%	0.05-0.05	0.0229	0.017	0.05	0.023	0.0001763	0.01328	0.5788	0.04	mg/L	N	0	N	N	Stable		0.017	Y			N		N	No
CCR-AP-6	19/20	5%	0.005-0.005	0.0325	0.035	0.043	0.043	0.000102	0.0101	0.3113	0.04	mg/L	Y	6	Y	N	Decrease		0.025	Y			N		N	No
CCR-AP-7R	19/20	5%	0.05-0.05	0.0235	0.0215	0.0348	0.034	0.00006342	0.007964	0.3396	0.04	mg/L	N	0	Y	N	Stable		0.013	Y			N		N	No
CCR Appendix-IV: Mercury, Total (mg/L)																									
CCR-BK-1	0/19	100%	0.0002-0.0002	0.0004	0.0004	0.0004		1.6024E-22	1.7902E-11	8.952E-08	0.002	mg/L	N	0	N	N	NA	Non-parametric				0.0002		0.002		
CCR-BK-2	2/19	89%	0.0002-0.0002	0.00039	0.0004	0.0004	0.0004	1.0242E-09	0.00004526	0.2324	0.002	mg/L	N	0	N	N	NA									
CCR-AP-1R	1/19	95%	0.0002-0.0002	0.000388	0.0004	0.0004	0.00017	1.3544E-09	0.00005204	0.2684	0.002	mg/L	N	0	Y	Y	NA		0.0002	N			N		N	No
CCR-AP-2R	1/19	95%	0.0002-0.0002	0.000388	0.0004	0.0004	0.00016	1.4748E-09	0.00005432	0.2804	0.002	mg/L	N	0	Y	Y	NA		0.0002	N			N		N	No
CCR-AP-3R	8/19	58%	0.0002-0.0002	0.00037	0.0004	0.000499	0.00106	1.819E-08	0.00019074	1.029	0.002	mg/L	N	0	Y	N	Increase		0.0002	N			N		N	No
CCR-AP-4R	0/19	100%	0.0002-0.0002	0.0004	0.0004	0.0004		1.6024E-22	1.7902E-11	8.952E-08	0.002	mg/L	N	0	N	N	NA		0.0002	N			N		N	No
CCR-AP-5R	0/16	100%	0.0002-0.0002	0.0004	0.0004	0.0004		1.2296E-22	1.5682E-11	7.84E-08	0.002	mg/L	N	0	N	N	NA		0.0002	N			N		N	No
CCR-AP-6	1/19	95%	0.0002-0.0002	0.000384	0.0004	0.0004	0.00011	2.154E-09	0.00006562	0.3412	0.002	mg/L	N	0	N	N	NA		0.0002	N			N		N	No
CCR-AP-7R	0/19	100%	0.0002-0.0002	0.0004	0.0004	0.0004		1.6024E-22	1.7902E-11	8.952E-08	0.002	mg/L	N	0	N	N	NA		0.0002	N			N		N	No
CCR Appendix-IV: Molybdenum, Total (mg/L)																									
CCR-BK-1	18/20	10%	0.005-0.005	0.00175	0.00135	0.005	0.0034	0.000001718	0.001311	0.747	0.1	mg/L	N	0	N	N	Decrease	Non-parametric				0.005		0.1		
CCR-BK-2	9/20	55%	0.005-0.005	0.00324	0.005	0.005	0.0025	0.000004168	0.002041	0.6298	0.1	mg/L	N	0	N	N	Stable									
CCR-AP-1R	18/20	10%	0.005-0.005	0.00429	0.0046	0.00512	0.0074	0.000001358	0.001165	0.2716	0.1	mg/L	N	0	Y	N	Stable		0.0050	N			N		N	No
CCR-AP-2R	20/20	0%	-	1.64	1.6	2	2	0.05608	0.2368	0.1448	0.1	mg/L	Y	20	Y	N	Stable	Normal	1.2000	Y	1.57		Y		Y	Yes
CCR-AP-3R	20/20	0%	-	0.87	0.89	1	1	0.01064	0.1031	0.1186	0.1	mg/L	Y	20	N	N	Stable	Normal	0.6900	Y	0.84		Y		Y	Yes
CCR-AP-4R	18/20	10%	0.005-0.005	0.0025	0.0016	0.00519	0.0088	0.000003856	0.001964	0.7854	0.1	mg/L	N	0	N	N	Decrease		0.0050	N			N		N	No
CCR-AP-5R	17/17	0%	-	0.0592	0.055	0.116	0.14	0.001017	0.03189	0.5383	0.1	mg/L	Y	2	N	N	Increase		0.1400	Y	0.043		Y		N	No
CCR-AP-6	19/20	5%	0.005-0.005	0.00777	0.0065	0.0153	0.021	0.00001972	0.004441	0.5712	0.1	mg/L	N	0	Y	N	Decrease		0.0050	N			N		N	No
CCR-AP-7R	4/20	80%	0.005-0.05	0.00645	0.005	0.00725	0.0016	0.0001078	0.01038	1.61	0.1	mg/L	N	0	Y	N	NA		0.0050	N			N		N	No
CCR Appendix-IV: Radium-226 & 228 (pCi/L)																									
CCR-BK-1	13/20	35%	0.121-0.509	1.136	0.939	2.888	4.92	0.5344	1.0338	1.8216	5	pCi/L	N	0	Y	N	Increase	Non-parametric				3.1		5.0		
CCR-BK-2	4/20	80%	-0.0961-5	1.704	0.53	6.448	6.26	3.45	2.626	3.082	5	pCi/L	N	0	N	N	NA									
CCR-AP-1R	13/20	35%	0.0879-5	1.742	1.363	3.026	2.1	2.066	2.032	2.334	5	pCi/L	N	0	N	N	Stable		5.00	N			N		N	No
CCR-AP-2R	17/20	15%	0.339-5	1.948	1.448	3.444	3.1	1.923	1.9612	2.014	5	pCi/L	N	0	N	N	Stable		5.00	N			N		N	No
CCR-AP-3R	16/20	20%	0.29-0.471	1.348	1.168	2.404	2.48	0.16856	0.5806	0.8618	5	pCi/L	N	0	N	N	Stable		1.20	Y			N		N	No
CCR-AP-4R	6/20	70%	0.0118-5	2.06	0.918	10.294	15.86	7.272	3.814	3.702	5	pCi/L	Y	2	Y	N	Stable		5.00	N			N		N	No
CCR-AP-5R	11/17	35%	0.0606-5	1.432	0.918	4.466	1.486	2.412	2.196	3.068	5	pCi/L	N	0	Y	N	Increase		5.00	N			N		N	No
CCR-AP-6	8/20	60%	0.0546-5	1.608	0.7	9.562	9.54	3.938	2.806	3.492	5	pCi/L	N	0	N	N	Stable		5.00	N			N		N	No
CCR-AP-7R	12/20	40%	0.0856-0.451	0.988	0.884	1.7084	1.754	0.1089	0.4666	0.9444	5	pCi/L	N	0	N	N	Stable		0.88	Y			N		N	No
CCR Appendix-IV: Selenium, Total (mg/L)																									
CCR-BK-1	3/20	85%	0.005-0.005	0.00866	0.01	0.01	0.00134	0.000005262	0.003244	0.7496	0.05	mg/L	N	0	Y	N	NA	Non-parametric				0.005		0.050		
CCR-BK-2	2/20	90%	0.005-0.005	0.00914	0.01	0.01	0.00196	0.000003388	0.002602	0.5692	0.05	mg/L	N	0	Y	N	NA									
CCR-AP-1R	1/20	95%	0.005-0.005	0.00954	0.01	0.01	0.00098	1.9818E-06	0.001991	0.417	0.05	mg/L	N	0	N	N	NA		0.0050	N			N		N	No
CCR-AP-2R	4/20	80%	0.005-0.05	0.01724	0.01	0.1	0.00166	0.0003964	0.02816	3.266	0.05	mg/L	N	0	Y	N	NA		0.0050	N			N		N	No
CCR-AP-3R	18/20	10%	0.05-0.05	0.0318	0.027	0.1	0.08	0.000447	0.0299	1.878	0.05	mg/L	N	0	N	N	Stable		0.0025	Y			N		N	No
CCR-AP-4R	4/20	80%	0.005-0.005	0.00834	0.01	0.01	0.0028	0.000005652	0.003362	0.8054	0.05	mg/L	N	0	Y	N	NA		0.0050	N			N		N	No
CCR-AP-5R	2/17	88%	0.005-0.05	0.025	0.01	0.1	0.00184	0.0006258	0.03538	2.84	0.05	mg/L	N	0	N	N	NA		0.0009	Y			N		N	No
CCR-AP-6	1/20	95%	0.005-0.05	0.01406	0.01	0.0145	0.0013	0.0002012	0.02006	2.852	0.05	mg/L	N	0	Y	N	NA		0.0050	N			N		N	No
CCR-AP-7R	2/20	90%	0.005-0.05	0.01366	0.01	0.0145	0.00198	0.0002044	0.02022	2.958	0.05	mg/L	N	0	Y	N	NA		0.0050	N			N		N	No
CCR Appendix-IV: Thallium, Total (mg/L)																									
CCR-BK-1	2/19	89%	0.001-0.001	0.001822	0.002	0.002	0.00054	1.4136E-07	0.0005318	0.5838	0.002	mg/L	N	0	N	N	NA	Non-parametric				0.001		0.002		
CCR-BK-2	3/19	84%	0.001-0.001	0.00173	0.002	0.002	0.00038	2.018E-07	0.0006352	0.7346	0.002	mg/L	N	0	N	N	NA									
CCR-AP-1R	4/19	79%	0.001-0.001	0.001662	0.002	0.002	0.00108	2.384E-07	0.0006904	0.8312	0.002	mg/L	N	0	N	N	NA		0.001	N			N		N	No
CCR-AP-2R	2/19	89%	0.001-0.01	0.0037	0.002	0.02	0.0003	0.0000162	0.005692	3.074	0.002	mg/L	N	0	Y	N	NA		0.001	N			N		N	No
CCR-AP-3R	2/19	89%	0.001-0.01	0.00466	0.002	0.02	0.00032	0.00002278	0.00675	2.896	0.002	mg/L	N	0	N	N	NA		0.00100	N			N		N	No
CCR-AP-4R	3/19	84%	0.001-0.001	0.00173	0.002	0.002	0.00044	2.014E-07	0.0006346	0.7332	0.002	mg/L	N	0	N	N	NA		0.001	N			N		N	No
CCR-AP-5R	2/16	88%	0.001-0.01	0.00518	0.002	0.02	0.00062	0.00002632	0.007256	2.806	0.002	mg/L	N	0	N	N	NA		0.000	Y			N		N	No
CCR-AP-6	5/19	74%	0.001-0.01	0.00248	0.002	0.0047	0.0004	0.000009064	0.004258	3.432	0.002	mg/L	N	0	Y	N	NA		0.001	N			N		N	No
CCR-AP-7R	1/19	95%	0.001-0.01	0.00284	0.002	0.0047	0.000108	0.000008484	0.00412	2.892	0.002	mg/L	N	0	Y	N	NA		0.001	N			N		N	No

Notes:

CCR - Coal Combustion Residuals
MCL - Maximum Concentration Limit
mg/L - Miligrams per Liter
NA - Not Applicable
pCi/L - Picocuries per Liter
RSL - Regional Screening Level
SSI - Statistically Significant Increase
SSL - Statistically Significant Level

APPENDIX B
Field Forms

GROUNDWATER LEVEL MONITORING REPORT

Form FMG 5.1-01
Rev (06-09-09

Project:	AB Brown Generating Station	Client: SIGECO	**File Number:** 0129420-037-001-01
Location:	Evansville, SC	Weather: Rain / Overcast	Project Manager: Neal Kochis
Reference:	Top of Casing	Units: ft	Field Representative: F. Reed, A.Wykel
Method:	Dip	Comments: None	

CCR Unit	Monitoring Well ID	Date	Time	Well Dry? (Y/N)	Depth to Water (ft)	Depth to top of pump	Well Bottom (Measured)	Well Bottom (From Table)	Riser Elevation (ft)	Water Elevation (ft)	Remarks	Measured By
AshPond	CCR-BK-1R	5/8/2023	1256	N	61.24	60.49	67.05	64.00	483.39	422.15		AW
	CCR-BK-2	5/8/2023	1240	N	17.62	25.06	-	25.50	430.60	412.98		AW
	CCR-AP-1R	5/8/2023	1451	N	16.28	33.71	-	37.00	467.57	451.29		AW
	CCR-AP-2IR	5/8/2023	830	N	35.83	86.34	-	93.00	468.88	433.05		AW
	CCR-AP-2R	5/8/2023	840	N	44.46	49.52	-	53.30	468.13	423.67		AW
	CCR-AP-3R	5/8/2023	910	N	39.79	40.54	-	47.00	449.13	409.34		AW
	CCR-AP-3I	5/8/2023	1055	N	28.84	69.27	-	77.50	450.35	421.51		AW
	CCR-AP-4	5/8/2023	1509	N	33.93	44.54	-	48.00	475.38	441.45		AW
	CCR-AP-5R	5/8/2023	1103	N	35.80	44.41	-	-	453.14	417.34		AW
	CCR-AP-6	5/8/2023	1330	N	18.53	38.26	-	39.00	461.57	443.04		AW
	CCR-AP-7	5/8/2023	1320	N	34.83	49.77	-	-	488.57	453.74		AW
	CCR-AP-8	5/8/2023	1348	N	1.47	12.83	-	16.20	417.17	415.70		AW
	CCR-AP-9	5/8/2023	1403	N	9.23	26.96	-	35.20	392.51	383.28		AW
	CCR-AP-10	5/8/2023	1510	N	36.25	40.47	-	43.20	474.34	438.09		AW
	CCR-AP-11	5/8/2023	1540	N	10.34	NA	25.21	-	376.72	366.38		AW
	FD-PZ-1	5/8/2023	1600	N	7.25	NA	17.73	-	418.94	411.69		AW
	FD-PZ-2	5/8/2023	1655	N	3.12	NA	33.23	-	423.34	420.22		AW
	MH-1	-	-	-	-	-	-	-	-	-		AW
	MH-2	-	-	-	-	-	-	-	-	-		AW
Landfill	CCR-LF-1	5/8/2023	1147	N	8.37	18.29	-	19.00	435.63	427.26		AW
	CCR-LF-2	5/8/2023	1130	N	27.97	44.34	-	45.00	473.00	445.03		AW
	CCR-LF-3	5/8/2023	1138	N	30.88	34.15	-	35.00	484.75	453.87		AW
	CCR-LF-4	5/8/2023	1307	N	48.30	54.34	-	55.00	478.85	430.55		AW
	CCR-LF-5	5/8/2023	1222	N	21.59	29.93	-	30.00	430.41	408.82		AW
	CCR-LF-6	5/8/2023	1217	N	7.18	8.79	-	9.66	412.05	404.87		AW
Sed Pond	CCR-SP-1	5/8/2023	1205	N	10.89	16.46	-	20.00	403.51	392.62		AW
	CCR-SP-2	5/8/2023	1200	N	14.05	15.26	-	20.00	403.23	389.18		AW
	CCR-SP-3	5/8/2023	1208	N	5.94	15.71	-	20.00	403.57	397.63		AW

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	A. Wykel
CONTRACTOR	N/A	**SAMPLING DATE**	05/11/23

Sampling Data:		Well Depth as Built:	64.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-BK-1R	Well Depth Measured:	67.05 ft	Initial Depth To Water:	61.25 ft	Field Parameter Device:	Horiba U-52
Start time:	7:30	Depth To Top Of Screen:	54.0 ft	Depth Of Pump Intake:	62.5 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	9:00	Depth To Bottom Of Scree	64.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
7:40	-	ml/min	100	0	18.69	7.10	0.454	7.98	100	254	Water level below top of pump
7:45	-	ml/min	100	0.5	18.04	7.05	0.459	6.27	59.9	247	
7:50	-	ml/min	100	1.0	17.58	6.95	0.453	5.81	34.5	244	
7:55	-	ml/min	100	1.5	17.30	6.92	0.449	5.65	24.5	241	
8:00	-	ml/min	100	2.00	17.19	6.92	0.447	5.50	2424	240	
8:05	-	ml/min	100	2.5	17.12	6.91	0.443	5.27	5.9	239	
8:10	-	ml/min	100	3.5	17.11	6.90	0.442	5.22	4.8	239	
8:15	-	ml/min	100	4.00	17.03	6.89	0.441	5.03	4.8	239	**STABLE**
											Sample @ 8:20
											Sample ID: CCR-BK-1R-051123

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	A. Wykel
CONTRACTOR	N/A	**SAMPLING DATE**	05/10/23

Sampling Data:

		Well Depth as Built:	25.5 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-BK-2	Well Depth Measured:	NA ft	Initial Depth To Water:	17.45 ft	Field Parameter Device:	Horiba U-52
Start time:	14:06	Depth To Top Of Screen:	15.5 ft	Depth Of Pump Intake:	25.06 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	15:10	Depth To Bottom Of Scree	25.5 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
14:15	17.60	ml/min	150	0	19.21	6.95	0.386	3.30	16.6	172	
14:20	17.65	ml/min	150	0.75	18.22	6.79	0.384	1.48	6.6	179	
14:25	17.67	ml/min	150	1.5	18.03	6.75	0.382	0.90	2.6	180	
14:30	17.64	ml/min	150	2.25	17.98	3.74	0.381	0.70	0	182	
14:35	17.71	ml/min	150	3.0	18.01	6.73	0.38	0.64	0	182	
14:40	17.72	ml/min	150	3.75	17.84	6.73	0.379	0.58	0	184	**STABLE**
											Sample @ 14:45
											Sample ID: CCR-BK-2-051023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/10/23

Sampling Data:		Well Depth as Built:	37.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-1R	Well Depth Measured:	NA ft	Initial Depth To Water:	17.45 ft	Field Parameter Device:	Horiba U-52
Start time:	14:06	Depth To Top Of Screen:	27.0 ft	Depth Of Pump Intake:	25.06 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	15:10	Depth To Bottom Of Scree	37.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
12:35	16.61	120	120	0.1	22.15	7.63	1.69	1.60	2.4	65	
12:40	16.66	120	120	1.0	20.62	7.35	1.4	0.89	5	68	
12:45	16.71	180	180	1.5	19.2	7.17	1.19	0.26	7.5	68	
12:50	16.76	200	200	2.2	18.22	7.04	1.13	0.0	10.6	68	
12:55	16.77	200	200	3.0	18.04	6.95	1.12	0.0	11.2	69	
13:00	16.77	200	200	4.0	17.95	6.81	1.11	0.0	9.2	73	
13:05	16.79	200	200	4.7	17.94	6.72	1.11	0.0	7.6	76	
13:10	16.78	200	200	5.6	17.74	6.65	1.11	0.0	7.4	79	
13:15	16.79	200	200	6.6	17.64	6.57	1.11	0.0	6.2	82	**STABLE**
											DTW after sampling: 16.72'
											Sample Time: 13:20
											Sample ID: CCR-AP-1R-051023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/10/23

Sampling Data:		Well Depth as Built:	53.3 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-2R	Well Depth Measured:	53.3 ft	Initial Depth To Water:	44.33 ft	Field Parameter Device:	Horiba U-52
Start time:	7:55	Depth To Top Of Screen:	43.3 ft	Depth Of Pump Top:	49.52 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	10:10	Depth To Bottom Of Scree	53.3 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
8:05	44.36	80	80	0.1	18.3	6.32	4.80	4.01	511	229	
8:10	44.38	80	80	0.5	18.42	6.70	3.43	1.8	565	214	
8:15	44.35	160	160	1.4	18.52	6.79	2.72	0.76	482	204	
8:20	44.34	160	160	2.2	18.58	6.79	2.48	0.52	442	197	
8:25	44.41	160	160	3.0	18.66	6.77	2.45	0.51	421	190	
8:30	44.37	160	160	3.7	18.72	6.76	2.46	0.51	428	183	
8:35	44.42	160	160	4.3	18.74	6.72	2.52	0.50	412	180	
8:40	44.38	100	100	5.0	18.8	6.64	2.85	0.45	374	178	
8:45	44.36	100	100	5.5	18.88	6.66	3.51	0.44	300	174	Sample time: 9:35
8:50	44.4	100	100	6.0	18.92	6.69	4.04	0.51	242	171	Sample ID: CCR-AP-2R-051023
8:55	44.38	100	100	6.5	18.95	6.72	4.45	0.56	189	167	
9:00	44.39	100	100	7.0	19.98	6.74	4.72	0.54	157	165	
9:05	44.38	100	100	7.5	19.07	6.76	4.98	0.52	128	161	
9:10	44.41	100	100	8.0	19.08	6.78	5.14	0.48	112	159	
9:15	44.34	100	100	8.4	19.08	6.79	5.28	0.48	96.8	158	
9:20	44.36	100	100	8.9	19.2	6.79	5.43	0.47	86.9	155	
9:25	44.33	100	100	9.5	19.27	6.80	5.55	0.43	80.0	153	
9:30	44.38	100	100	10.0	19.37	6.81	5.63	0.40	74.5	152	**STABLE**

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/09/23

Sampling Data:		Well Depth as Built:	94.4 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-2I	Well Depth Measured:	NA ft	Initial Depth To Water:	35.8 ft	Field Parameter Device:	Horiba U-52
Start time:	8:25	Depth To Top Of Screen:	83.0 ft	Depth Of Pump Intake:	88 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	11:20	Depth To Bottom Of Screer	93.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature ($^{\circ}$C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
8:35	37.48	160	160	0.8	18.80	6.91	1.19	2.42	10	182	
8:40	38.55	160	160	1.6	18.64	7.58	1.21	1.01	36.3	80	
8:45	39.81	160	160	2.0	18.64	7.72	1.18	0.6	31.4	46	
8:50	41.10	160	160	2.8	18.64	7.80	1.17	0.4	28.2	20	
8:55	42.39	160	160	3.6	18.63	7.82	1.16	0.29	25.3	7	Drawdown issues, changed flowrate to 80 ml/min
9:00	43.13	80	80	4.0	18.76	7.84	1.16	0.62	24.5	-1	Horiba shut-off
9:05	43.77	80	80	4.4	18.76	7.86	1.15	0.46	22.7	-4	
9:10	44.36	80	80	4.8	18.79	7.87	1.15	0.4	21.9	-7	
9:17	45.16	80	80	5.4	18.88	7.89	1.15	0.36	21.3	-12	
9:20	45.52	80	80	5.6	18.96	7.89	1.15	0.36	22	-15	
9:25	45.98	80	80	2.9	19.03	7.90	1.15	0.35	21.9	-17	Depth to Water after sampling: 56.81'
9:30	46.61	80	80	6.2	19.10	7.91	1.15	0.34	22.7	-20	
9:35	47.25	80	80	6.8	19.21	7.91	1.15	0.32	20.9	-24	
9:40	47.74	80	80	7.0	19.28	7.91	1.15	0.31	19.7	-26	Sample Time:10:15
9:45	48.24	70	70	7.3	19.44	7.91	1.15	0.29	19	-27	Sample ID: CCR-AP-2I-050923
9:50	48.62	60	60	7.5	19.48	7.91	1.14	0.29	19.5	-28	
9:55	49.11	60	60	8.0	19.6	7.91	1.14	0.26	18.4	-31	
10:03	49.92	60	60	8.4	19.6	7.92	1.14	0.25	18.2	-34	
10:05	50.11	60	60	8.5	19.66	7.92	1.14	0.25	18.3	-34	
10:10	50.59	60	60	8.9	19.62	7.92	1.14	0.23	18.4	-36	**STABLE**

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/09/23

Sampling Data:		Well Depth as Built:	47.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-3R	Well Depth Measured:	47 ft	Initial Depth To Water:	39.68 ft	Field Parameter Device:	Horiba U-52
Start time:	16:30	Depth To Top Of Screen:	37.0 ft	Depth Of Pump Intake:	42 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	18:00	Depth To Bottom Of Scree	47.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
16:45	39.70	100	100	0.1	21.73	7.6	10.3	1.95	7.5	120	
16:50	39.70	100	100	0.9	20.99	7.35	10.7	0.83	3.5	121	
16:55	39.70	120	120	1.5	20.30	7.24	10.8	0.39	0.5	120	
17:00	39.70	160	160	2.0	20.20	7.17	10.8	0.14	0	117	
17:05	39.70	160	160	3.0	20.10	7.17	10.8	0.00	0	112	
17:10	39.70	160	160	3.9	20.27	7.15	10.8	0.00	0	107	
17:15	39.70	160	160	4.5	20.4	7.15	10.8	0.00	0	102	**STABLE**
											Depth to water after sampling: 39.70'
											Sample Time: 1720
											Sample ID: CCR-AP-050923
											Field Dup: DUP1-050923

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/09/23

Sampling Data:		Well Depth as Built:	78.3 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-3I	Well Depth Measured:	77.5 ft	Initial Depth To Water:	29.03 ft	Field Parameter Device:	Horiba U-52
Start time:	13:50	Depth To Top Of Screen:	67.5 ft	Depth Of Pump Top:	69.27 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:		Depth To Bottom Of Scree	77.8 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
14:00	30.34	200	200	0.3	20.11	8.12	1.38	1.81	112	94	
14:05	31.18	200	200	1.2	20.20	8.1	1.36	0.36	155	26	
14:10	31.74	200	200	2.00	20.14	8.11	1.35	0.31	133	8	
14:15	32.44	200	200	3.1	20.10	8.11	1.34	0.18	122	-16	
14:20	33.13	200	200	4.1	19.89	8.1	1.33	0.1	96.3	-33	
14:25	33.75	200	200	5.0	19.94	8.07	1.32	0.03	98.5	-51	
14:30	34.50	200	200	6.0	20.06	8.07	1.31	0	101	-62	
14:35	34.76	90	90	6.3	20.35	8.06	1.30	0.03	102	-65	
14:40	34.93	90	90	6.8	20.48	8.06	1.30	0.06	105	-65	
14:45	35.16	90	90	7.0	20.77	8.05	1.31	0.08	110	-63	
14:50	35.40	90	90	7.5	20.74	8.06	1.31	0.08	103	-61	Sample time: 15:25
14:55	35.63	90	90	8.0	20.87	8.07	1.31	0.07	97.1	-61	Sample ID: CCR-AP-3I-050923
15:00	35.85	90	90	8.5	20.77	8.07	1.31	0.06	96.5	-60	
15:05	35.97	80	80	8.8	21.10	8.06	1.30	0.06	90.2	-59	
15:10	36.05	80	80	9.0	21.01	8.03	1.30	0.08	82.9	-54	
15:15	36.17	60	60	9.3	20.95	8.03	1.30	0.08	78.9	-52	
15:20	36.30	60	60	9.6	20.89	8.03	1.31	0.08	74.1	-50	**STABLE**
											Depth to water after sampling: 38.11'

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/10/23

Sampling Data:

		Well Depth as Built:	48.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-4R	Well Depth Measured:	48 ft	Initial Depth To Water:	33.96 ft	Field Parameter Device:	Horiba U-52
Start time:	16:00	Depth To Top Of Screen:	38.0 ft	Depth Of Pump Top:	44.54 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	17:10	Depth To Bottom Of Scree	48.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
16:10	34.24	200	200	0.3	17.70	7.9	1.08	7.67	59.3	125	
16:15	34.33	200	200	1.1	16.89	7.25	1.01	6.73	50.9	149	
16:20	34.35	200	200	2	16.73	6.96	1.02	6.53	34.7	160	
16:25	34.38	180	180	2.9	16.65	6.97	1.02	6.40	25.9	158	
16:30	34.39	180	180	3.5	16.83	6.85	1.03	6.22	21.2	161	
16:35	34.40	200	200	4.5	16.74	6.93	1.02	6.11	18.6	155	
16:40	34.42	200	200	5.7	16.63	7.01	1.02	5.82	16.9	152	
16:45	34.46	200	200	6.8	16.51	7.03	1.02	6.02	15.4	154	**STABLE**
											Depth to water after sampling: 34.40'
											Sample Time: 16:50
											Sample ID: CCR-AP-4R-051023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/09/23

Sampling Data:		Well Depth as Built:	45.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-5R	Well Depth Measured:	44.41 ft	Initial Depth To Water:	35.79 ft	Field Parameter Device:	Horiba U-52
Start time:	11:20	Depth To Top Of Screen:	35.0 ft	Depth Of Pump Intake:	40 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	13:40	Depth To Bottom Of Scree	45.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
11:40	35.85	80	80	0.16	19.57	7.46	7.21	3.06	52.9	130	
11:45	35.84	80	80	0.5	19.13	7.23	7.39	1.15	46.2	119	
11:50	35.85	100	100	0.9	19.00	7.14	7.46	0.50	30.3	96	
11:55	35.91	160	160	2.0	18.66	7.1	7.50	0.20	17	85	
12:00	35.87	160	160	2.8	18.49	7.07	7.53	0.04	11	80	
12:05	35.87	200	200	4.0	18.50	7.06	7.54	0.00	6.9	77	
12:10	35.89	200	200	5.0	18.50	7.05	7.55	0.00	5.5	76	
12:15	35.91	200	200	6.0	18.42	7.05	7.57	0.00	4.0	75	
12:20	35.90	200	200	7.0	18.50	7.03	5.58	0.00	3.3	75	
12:25	35.92	200	200	8.0	18.49	7.03	7.59	0.00	3.0	75	**STABLE**
											Depth to water after sampling: 35.80'
											Sample time:12:30
											Sample ID: CCR-AP-5R-050923
											MS/MSD

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	A. Wykel
CONTRACTOR	N/A	**SAMPLING DATE**	05/10/23

Sampling Data:		Well Depth as Built:	39.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-6	Well Depth Measured:	NA ft	Initial Depth To Water:	18.57 ft	Field Parameter Device:	Horiba U-52
Start time:	8:30	Depth To Top Of Screen:	29.0 ft	Depth Of Pump Intake:	38.26 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	10:00	Depth To Bottom Of Scree	39.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
8:35	19.85	150	150	0	16.42	6.68	3.81	1.37	351	14	
8:40	20.09	150	150	0.75	16.91	6.72	3.82	0.74	246	9	
8:45	20.27	150	150	1.5	16.79	6.73	3.84	0.62	201	5	
8:50	20.58	150	150	2.25	16.06	6.73	3.88	0.48	148	0	water looks clear
8:55	21.33	100	100	2.75	15.93	6.73	3.86	0.17	42.8	-1	flow reduced to minimize drawdown
9:00	21.89	100	100	3.25	15.95	6.73	3.82	0.06	23.7	2	
9:05	22.63	100	100	3.75	16.01	6.74	3.77	0.00	20.6	0	
9:10	22.86	100	100	4.25	16.07	6.75	3.75	0.00	13.1	-3	
9:15	23.02	100	100	4.75	16.07	6.76	3.75	0.00	12	-7	
9:20	23.21	100	100	5.25	16.13	6.76	3.75	0.00	13.2	-11	**STABLE**
											Sample time: 9:20
											Sample ID: CCR-AP-6-05102023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/11/23

Sampling Data:		Well Depth as Built:	53.5 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-7R	Well Depth Measured:	53.5 ft	Initial Depth To Water:	34.95 ft	Field Parameter Device:	Horiba U-52
Start time:	6:55	Depth To Top Of Screen:	43.5 ft	Depth Of Pump Top:	49.77 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	8:20	Depth To Bottom Of Scree	53.5 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
7:05	35.12	200	200	0.1	16.46	5.93	4.04	6.87	13.5	228	
7:10	35.11	200	200	1.0	16.00	6.25	3.19	6.06	18.6	225	
7:15	35.12	200	200	2.0	15.84	6.30	3.03	5.74	16.6	226	
7:20	35.13	200	200	3.0	15.78	6.31	3.02	5.54	13.3	227	
7:25	35.11	200	200	4.0	15.75	6.32	3.02	5.50	11.0	227	
7:30	35.14	200	200	5.0	15.76	6.33	3.02	5.44	9.9	226	
7:35	35.11	200	200	6.0	15.74	6.33	3.02	5.48	8.5	226	
7:40	35.13	200	200	7.0	15.71	6.32	3.01	5.35	5.9	227	
7:45	35.14	200	200	8.0	16.69	6.32	3.01	5.45	7.8	226	**STABLE**
											Depth to water after sampling: 35.09
											Sample time:7:50
											Sample ID: CCR-AP-7R-051123

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	A. Wykel
CONTRACTOR	N/A	**SAMPLING DATE**	05/09/23

Sampling Data:

Well ID:	CCR-AP-8	Well Depth as Built:	16.5 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	16:00	Well Depth Measured:	NA ft	Initial Depth To Water:	1.54 ft	Field Parameter Device:	Horiba U-52
Finish Time:	17:30	Depth To Top Of Screen:	6.2 ft	Depth Of Pump Intake:	12.83 ft	Tubing Present In Well:	[X] Yes [ ] No
		Depth To Bottom Of Scree	16.2 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
16:15	1.54	100	100	0	19.72	6.88	2.79	7.87	126	122	
16:20	1.56	100	100	0.5	19.46	6.8	2.87	7.37	115	110	
16:25	1.57	100	100	1.0	18.55	6.73	2.93	7.37	62.2	90	
16:30	1.56	100	100	1.5	17.9	6.69	2.99	6.81	34.4	63	
16:35	1.56	100	100	2.0	17.41	6.69	2.97	6.45	26.4	47	
16:40	x	x	x	x	x	x	x	x	x	x	
16:45	1.56	100	100	2.5	17.16	6.68	2.93	5.47	13.9	-36	increased purge rate because no drawdown
16:50	1.56	200	200	3.5	17.09	6.68	2.91	4.44	11.4	-55	
16:55	1.57	200	200	4.5	17.20	6.67	2.90	4.47	10	-65	
17:00	1.57	200	200	5.5	17.09	6.67	2.87	4.69	9.3	-71	**STABLE**
											Sample time: 17:05
											Sample ID: CCR-AP-8-05092023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/10/23

Sampling Data:		Well Depth as Built:	35.5 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-9	Well Depth Measured:	35.2 ft	Initial Depth To Water:	9.76 ft	Field Parameter Device:	Horiba U-52
Start time:	10:25	Depth To Top Of Screen:	25.2 ft	Depth Of Pump Top:	26.96 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	12:00	Depth To Bottom Of Scree	35.2 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
10:35	10.93	160	160	0.4	21.20	6.89	10.5	1.62	97.4	-72	
10:40	11.15	120	120	0.8	21.12	6.91	10.4	1.08	95.4	-83	
10:45	11.51	120	120	1.2	21.15	6.92	10.2	0.80	93.4	-92	
10:50	11.70	120	120	1.9	21.30	6.92	10.1	0.58	72.2	-96	
10:55	12.15	100	100	2.4	21.43	6.94	9.98	0.16	60.8	-104	
11:00	12.26	100	100	3.3	21.66	6.94	9.95	0.09	59.1	-108	
11:05	12.37	100	100	3.7	21.87	6.95	9.92	0.00	57.3	-109	
11:10	12.47	100	100	4.0	21.97	6.96	9.85	0.00	55.1	-112	
11:15	12.65	100	100	4.7	21.82	6.96	9.88	0.00	58.9	-114	**STABLE**
											Depth to water after sampling: 13.11'
											Sample time: 11:20
											Sample ID: CCR-AP-9-051023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/10/23

Sampling Data:

		Well Depth as Built:	43.3 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-10	Well Depth Measured:	43.2 ft	Initial Depth To Water:	36.24 ft	Field Parameter Device:	Horiba U-52
Start time:	14:00	Depth To Top Of Screen:	33.2 ft	Depth Of Pump Top:	40.47 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	15:50	Depth To Bottom Of Scree	43.2 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
14:15	36.56	200	200	1.0	17.66	7.31	3.56	2.59	572	121	
14:20	36.68	200	200	2.0	16.70	7.04	3.51	0.85	443	130	
14:25	36.72	200	200	3.0	16.55	6.93	3.48	0.59	269	132	
14:30	36.79	200	200	4.0	16.42	6.92	3.48	0.51	170	129	
14:35	36.84	200	200	5.0	16.40	6.95	3.47	0.55	123	128	
14:40	36.91	200	200	6.0	16.39	6.97	3.47	0.56	80.0	126	
14:45	36.88	200	200	7.0	16.29	6.98	3.47	0.57	52.0	126	
14:50	36.95	200	200	8.0	16.29	6.99	3.46	0.55	39.1	125	
14:55	36.91	200	200	9.0	16.30	7.00	3.45	0.53	31.2	123	
15:00	36.99	200	200	10.0	16.40	7.03	3.44	0.53	25.6	124	
15:05	36.94	200	200	11.0	16.40	7.02	3.44	0.52	22.6	124	
15:10	36.97	200	200	12.0	16.31	7.02	3.44	0.48	16.0	125	
15:15	36.99	200	200	13.0	16.28	7.02	3.45	0.48	15.7	125	
15:20	36.96	200	200	14.0	16.23	7.02	3.44	0.44	15.4	125	**STABLE**
											Sample time: 15:25
											Sample ID: CCR-AP-10-051023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	A. Wykel
CONTRACTOR	N/A	**SAMPLING DATE**	05/10/23

Sampling Data:

		Well Depth as Built:	26.0 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Well ID:	CCR-AP-11	Well Depth Measured:	25.21 ft	Initial Depth To Water:	10.06 ft	Field Parameter Device:	Horiba U-52
Start time:	12:05	Depth To Top Of Screen:	16.0 ft	Depth Of Pump Intake:	23 ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	13:10	Depth To Bottom Of Scree	26.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
12:10	10.21	150	150	0.0	18.11	6.88	1.27	1.88	11.0	162	
12:15	10.21	150	150	0.75	17.29	6.86	1.27	1.48	8.7	167	
12:20	10.22	150	150	1.5	16.94	6.83	1.27	1.30	7.7	169	
12:25	10.24	150	150	2.25	16.76	6.81	1.27	1.16	7.2	172	
12:30	10.26	150	150	3.0	16.62	6.81	1.27	1.09	4.0	177	
12:35	10.26	150	150	3.75	16.45	6.81	1.27	1.04	2.4	179	
12:40	10.28	150	150	4.5	16.51	6.81	1.27	0.99	1.0	180	**STABLE**
											Sample time: 12:45
											Sample ID: CCR-AP-11-051023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	A. Wykel
CONTRACTOR	N/A	**SAMPLING DATE**	05/09/23

Sampling Data:

		Well Depth as Built:	18.5 ft	Well Diameter:	1.0 in	Purging Device:	Peristaltic
Well ID:	FD-PZ-1	Well Depth Measured:	17.73 ft	Initial Depth To Water:	7.25 ft	Field Parameter Device:	Horiba U-52
Start time:	9:10	Depth To Top Of Screen:	13.5 ft	Depth Of Pump Intake:	15 ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	10:40	Depth To Bottom Of Scree	18.5 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
9:15	7.75	200	200	0	19.44	7.00	3.08	2.00	>1000	80	very soft well bottom
9:20	7.63	200	200	1	18.61	7.42	4.36	0.55	592	2	water is grayish, black with lots os suspended
9:25	7.63	200	200	2	18.04	7.49	4.72	0.24	496	-54	material
9:30	x	x	x	x	x	x	x	x	x	x	**stopped to clear flow cell, continued purging**
9:40	7.8	200	200	4	18.2	7.50	5.43	0.02	815	-81	
9:45	7.8	200	200	5	17.93	7.47	5.7	0.00	369	-95	
9:55	7.8	200	200	7	17.72	7.47	5.98	0.00	859	-98	
10:00	7.8	200	200	8	17.71	7.45	6.18	0.00	616	-99	
10:05	7.8	200	200	9	17.73	7.44	6.33	0.00	462	-99	
10:10	7.8	200	200	10	17.82	7.42	6.43	0.00	328	-100	
											Sample time:10:15
											Sample ID: FD-PZ-1-05092023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	A. Wykel
CONTRACTOR	N/A	**SAMPLING DATE**	05/09/23

Sampling Data:

Well ID:	FD-PZ-2	Well Depth as Built:	34.0 ft	Well Diameter:	1.0 in	Purging Device:	Peristaltic
Start time:	13:30	Well Depth Measured:	33.23 ft	Initial Depth To Water:	2.84 ft	Field Parameter Device:	Horiba U-52
Finish Time:	11:30 (5/10/23)	Depth To Top Of Screen:	24.0 ft	Depth Of Pump Intake:	31 ft	Tubing Present In Well:	☐ Yes ☒ No
		Depth To Bottom Of Scree	34.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
13:40	5	150	150	0	19.94	7.11	0.803	1.62	53	-39	
13:45	7.65	150	150	0.75	19.25	7.01	0.723	1.24	24.1	-31	
13:50	8.92	150	150	1.5	19.62	6.98	0.7	1.13	20.2	-24	
13:55	10.1	150	150	2.25	19.38	6.97	0.68	1.15	13.8	-18	**changed flow rate, water is clear
14:00	11.64	100	100	2.75	20.1	6.95	0.649	1.17	14.5	-6	*while purging 3 well volumes, the water became
14:55	13.41	100	100	3.25	20.88	6.95	0.632	1.23	14.7	-3	yellowish brown, >1000 NTU
14:10	14.56	100	100	3.75	21.09	6.96	0.619	1.25	8.3	-2	
14:15	15.81	100	100	4.25	21.92	6.95	0.612	1.28	19	2	
14:20	16.87	100	100	4.75	20.52	6.95	0.614	1.3	20.4	6	
14:25	17.88	100	100	2.25	20.56	6.95	0.616	1.3	21.5	9	
14:30	19.01	100	100	5.75	20.75	6.96	0.611	1.27	22.2	8	too hgh drawdown, purged 3 well volumes (3.8 gal)
15:30											finished purging 3.8 gal, come back tomorrow to
											sample
											5/10/23 depth to water: 16.27
											Sample time: 11:00 (5/10/2023)
											Sample ID: FD-PZ-2-05102023

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	A. Wykel
CONTRACTOR	N/A	**SAMPLING DATE**	

Sampling Data:		Well Depth as Built:	NA ft	Well Diameter:	36.0 in	Purging Device:	Peristaltic
Well ID:	MH-1	Well Depth Measured:	NA ft	Initial Depth To Water:	8.99 ft	Field Parameter Device:	Horiba U-52
Start time:	1240	Depth To Top Of Screen:	NA ft	Depth Of Pump Intake:	10 ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	1300	Depth To Bottom Of Scree	NA ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1250	8.99	-	-	-	19.72	7.15	7.66	0.03	228	21	
											Sample time: 12:50
											Sample ID: MH-1-050923

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	A. Wykel
CONTRACTOR	N/A	**SAMPLING DATE**	05/09/23

Sampling Data:

Well ID:	MH-2	Well Depth as Built:	NA ft	Well Diameter:	36.0 in	Purging Device:	Peristaltic
Start time:	11:15	Well Depth Measured:	NA ft	Initial Depth To Water:	11.01 ft	Field Parameter Device:	Horiba u-52
Finish Time:	11:45	Depth To Top Of Screen:	NA ft	Depth Of Pump Intake:	13 ft	Tubing Present In Well:	☐ Yes ☒ No
		Depth To Bottom Of Scree	NA ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
11:25	11.01	-	-	-	19.33	6.85	7.61	1.20	11.10	8	
											Sample Time: 11:25
											Sample ID: MH-2-050923

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

HALEY ALDRICH

GROUNDWATER LEVEL MONITORING REPORT

Form FMG 5.1-01
Rev (06-09-09

Project:	AB Brown	Client: SIGECO	File Number: 0129420-027
Location:	Evansville, IN	Weather: Partly Cloudy, 65 °F	Project Manager: Neal Kochis
Reference:	Top of Casing	Units: ft	Field Representative: F. Reed, R. Elwer
Method:	Dip	Comments:	

CCR Unit	Monitoring Well ID	Date	Time	Well Dry? (Y/N)	Depth to Water (ft)	Depth to top of pump	Well Bottom (Measured)	Well Bottom (From Table)	Riser Elevation (ft)	Water Elevation (ft)	Remarks	Measured By
AshPond	CCR-BK-1R	11/6/2023	10:32	Y	-	60.49	-	64.00	483.39	-	Water level below the top of the pump	F.Reed
	CCR-BK-2	11/6/2023	10:40	Y	-	25.06	NA	25.50	430.60	-	Water level below the top of the pump	F. Reed
	CCR-AP-1R	11/6/2023	11:11	N	20.73	33.71	-	39.87	467.57	446.84	Dedicated Pump	F.Reed
	CCR-AP-2I	11/6/2023	13:44	N	39.95	86.34	-	64.78	465.79	425.84	Dedicated Pump	F.Reed
	CCR-AP-2R	11/6/2023	13:43	N	48.38	49.52	-	56.03	468.13	419.75	Dedicated Pump	F.Reed
	CCR-AP-3R	11/6/2023	13:05	N	-	40.64	46.03	47.00	449.13	-	Water level below the top of the pump	F.Reed
	CCR-AP-3I	11/6/2023	13:00	N	30.45	69.27	-	77.50	450.35	419.90	Dedicated Pump	F.Reed
	CCR-AP-4	11/6/2023	11:20	N	35.39	44.54	-	50.58	475.38	439.99	Dedicated Pump	F.Reed
	CCR-AP-5R	11/6/2023	13:38	N	36.91	44.41	-	47.14	453.14	416.23	No bolts, well box filled with water	F.Reed
	CCR-AP-6	11/6/2023	10:06	N	20.38	38.26	-	41.67	461.57	441.19	Taken from the original survey height	F.Reed
	CCR-AP-7R	11/6/2023	10:12	N	36.14	49.77	-	56.07	488.57	452.43	Dedicated Pump	F.Reed
	CCR-AP-8	11/6/2023	9:58	N	4.19	12.83	-	19.37	417.17	412.98	Dedicated Pump	F.Reed
	CCR-AP-9	11/6/2023	9:20	N	10.14	26.96	33.55	35.20	392.51	392.51	Dedicated Pump	F.Reed
	CCR-AP-10	11/6/2023	11:23	N	39.17	40.47	-	46.04	474.34	435.17	Dedicated Pump	F.Reed
	CCR-AP-11	11/6/2023	10:50	N	14.37	N/A	25.27	25.27	376.72	362.35	No Pump	R. Elwer
	FD-PZ-1	11/6/2023	13:30	N	7.99	N/A	17.33	-	418.94	410.95	No Pump	R. Elwer
	FD-PZ-2	11/6/2023	12:22	N	5.59	N/A	33.18	-	423.34	417.75	No Pump	F.Reed
	FD-PZ-4	11/6/2023	12:45	N	10.58	N/A	22.85	-	419.19	408.61	No Pump	F.Reed
	HA-PP-1	11/6/2023	15:22	N	3.19	N/A	-	-	381.82	378.63	No Pump	F. Reed
	HA-PP-2	11/6/2023	15:25	N	3.83	N/A	-	-	381.51	377.68	No Pump	F. Reed
	CMA-01S	11/6/2023	13:31	N	31.92	N/A	-	47.31	445.87	413.95	No Pump	F. Reed
	CMA-01I	11/6/2023	13:32	N	32.83	N/A	-	72.45	446.25	413.42	No Pump	F. Reed
	CMA-02S	11/6/2023	13:28	N	26.96	N/A	-	50.85	436.63	409.67	No Pump	F. Reed
	CMA-02I	11/6/2023	13:29	N	26.55	N/A	-	76.18	436.51	409.96	No Pump	F. Reed
	CMA-03S	11/6/2023	13:26	N	29.13	N/A	-	50.95	436.29	407.16	No Pump	F. Reed
	CMA-03I	11/6/2023	13:27	N	28.83	N/A	-	76.65	436.16	407.33	No Pump	F. Reed
	CMA-04S	11/6/2023	13:19	N	25.63	N/A	-	46.98	435.89	410.26	No Pump	F. Reed
	CMA-04I	11/6/2023	13:21	N	28.19	N/A	-	76.56	436.21	408.02	No Pump	F. Reed
	CMA-04BR	11/6/2023	13:24	N	19.71	N/A	-	108.21	436.54	416.83	No Pump	F. Reed

HALEY ALDRICH

GROUNDWATER LEVEL MONITORING REPORT

Form FMG 5.1-01
Rev (06-09-09

Project:	AB Brown	Client: SIGECO	File Number: 0129420-027
Location:	Evansville, IN	Weather: Partly Cloudy, 65 °F	Project Manager: Neal Kochis
Reference:	Top of Casing	Units: ft	Field Representative: F. Reed, R. Elwer
Method:	Dip	Comments:	

CCR Unit	Monitoring Well ID	Date	Time	Well Dry? (Y/N)	Depth to Water (ft)	Depth to top of pump	Well Bottom (Measured)	Well Bottom (From Table)	Riser Elevation (ft)	Water Elevation (ft)	Remarks	Measured By
Ash Pond	CMA-05S	11/6/2023	13:14	N	25.06	N/A	43.01	42.96	436.26	411.20	No Pump	F. Reed
	CMA-05I	11/6/2023	13:16	N	25.56	N/A	-	67.16	436.52	410.96	No Pump	F. Reed
	CMA-06S	11/6/2023	9:36	N	10.92	N/A	34.12	33.94	392.08	381.16	No Pump	F. Reed
	CMA-06I	11/6/2023	9:39	N	8.68	N/A	59.71	59.55	392.22	383.54	No Pump	F. Reed
	CMA-06BR	11/6/2023	9:41	N	9.45	N/A	79.82	70.55	392.44	382.99	No Pump	F. Reed
	CMA-07I	11/6/2023	11:42	N	22.28	N/A	47.65	47.42	419.95	397.67	No Pump	R. Elwer
	CMA-08I	11/6/2023	11:36	N	42.13	N/A	53.04	52.85	443.25	401.12	No Pump	F. Reed
Landfill	CCR-LF-1	11/6/2023	14:06	N	11.23	18.29	-	19.00	435.63	424.40	Dedicated Pump	F.Reed
	CCR-LF-2	11/6/2023	13:55	N	28.60	44.34	-	45.00	473.00	444.40	Dedicated Pump	F.Reed
	CCR-LF-3	11/6/2023	14:00	N	31.44	34.15	-	35.00	484.75	453.31	Dedicated Pump	F.Reed
	CCR-LF-4	11/6/2023	10:25	N	48.22	54.34	-	55.00	478.85	430.63	Dedicated Pump	F.Reed
	CCR-LF-5	11/6/2023	14:24	N	22.20	29.93	-	30.00	430.41	408.21	Dedicated Pump	F.Reed
	CCR-LF-6	11/6/2023	14:20	N	7.67	8.79	-	9.66	412.05	404.38	Pump gets caught on lid when closing well	F.Reed
Sed Pond	CCR-SP-1	11/6/2023	14:53	N	11.80	16.46	-	20.00	403.51	391.71	Dedicated Pump	F.Reed
	CCR-SP-2	11/6/2023	14:45	N	14.64	15.26	-	20.00	403.23	388.59	PVC bent over pump, had to pry the pump out	F.Reed
	CCR-SP-3	11/6/2023	-	N	-	15.71	-	20.00	403.57	-	Well casing damaged, see photos	F.Reed

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/08/23

Sampling Data:

Well ID:	CCR-BK-1R	Well Depth as Built:	64.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	14:30	Well Depth Measured:	67.05 ft	Initial Depth To Water:	below top of pump ft	Field Parameter Device:	Horiba U-52
Finish Time:	16:00	Depth To Top Of Screen:	54.0 ft	Depth Of Pump Top:	60.6 ft	Tubing Present In Well:	[X] Yes [ ] No
		Depth To Bottom Of Scree	64.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
14:40	below pump	100	100	0.1	27.00	7.64	0.504	4.78	1.0	175	
14:45	below pump	100	100	0.7	26.40	7.24	0.444	4.62	1.3	195	
14:50	below pump	100	100	1.2	25.86	7.08	0.429	4.54	1.9	203	
14:55	below pump	100	100	1.9	25.69	7.08	0.423	4.30	1.7	208	
15:00	below pump	100	100	2.2	25.56	7.06	0.421	4.05	0.7	216	
15:05	below pump	100	100	2.6	25.39	7.01	0.422	3.83	0.6	215	
15:10	below pump	100	100	3	25.44	7.00	0.424	3.56	0.0	218	
15:15	below pump	100	100	3.3	25.30	7.00	0.424	3.40	0.0	222	
15:20	below pump	100	100	3.9	25.20	6.97	0.425	3.21	2.4	222	**STABLE**
											Sample Time: 15:20
											Sample ID: CCR-BK-1-110823

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/09/23

Sampling Data:		Well Depth as Built:	25.5 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-BK-2	Well Depth Measured:	NA ft	Initial Depth To Water:	below top of pump ft	Field Parameter Device:	Horiba U-52
Start time:	7:30	Depth To Top Of Screen:	15.5 ft	Depth Of Pump Top:	25.06 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	9:20	Depth To Bottom Of Scree	25.5 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
7:43	below pump	120	120	0.1	23.40	6.13	0.420	4.54	46.7	248	
7:48	below pump	120	120	0.8	23.43	6.34	0.399	1.09	36.8	251	
7:53	below pump	120	120	1.3	23.51	6.47	0.390	0.79	17.8	249	
7:58	below pump	120	120	1.8	23.60	6.36	0.386	0.62	5.9	247	
8:03	below pump	120	120	2.1	23.65	6.41	0.383	0.55	1.4	239	
8:07	below pump	120	120	2.5	23.73	6.36	0.382	0.52	0.0	243	
8:13	below pump	120	120	3.0	23.79	6.41	0.381	0.51	0.0	235	**STABLE**
											Sample Time: 8:13
											Sample ID: CCR-BK-2-110923

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/08/23

Sampling Data:		Well Depth as Built:	37.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-1R	Well Depth Measured:	37 ft	Initial Depth To Water:	20.69 ft	Field Parameter Device:	Horiba U-52
Start time:	13:10	Depth To Top Of Screen:	27.0 ft	Depth Of Pump Intake:	33.82 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	14:25	Depth To Bottom Of Scree	37.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
13:20	21	200	200	0.1	26.91	7.24	1.16	1.25	8.7	206	
13:25	21.02	200	200	1	24.85	7.01	1.17	0.19	10.2	116	
13:30	21.07	200	200	2	24.53	6.85	1.17	0.07	5.9	104	
13:35	21.11	200	200	3.1	24.45	6.86	1.18	0.03	2.6	96	
13:40	21.14	200	200	4.8	24.38	6.86	1.41	0.01	0.5	94	
13:45	21.15	200	200	5.8	24.34	6.82	1.69	0	0	93	
13:50	21.16	200	200	6.9	24.35	6.81	1.8	0	0	98	
13:55	21.16	200	200	7.8	24.29	6.81	1.85	0	0	97	
14:00	21.16	200	200	8.7	24.3	6.82	1.85	0	0	92	**STABLE**
											Sample Time: 14:00
											Sample ID: CCR-AP-1R-110823

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/08/23

Sampling Data:

Well ID:	CCR-AP-2R	Well Depth as Built:	53.3 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	7:20	Well Depth Measured:	53.3 ft	Initial Depth To Water:	48.47 ft	Field Parameter Device:	Horiba U-52
Finish Time:	9:40	Depth To Top Of Screen:	43.3 ft	Depth Of Pump Intake:	49.75 ft	Tubing Present In Well:	[X] Yes [ ] No
		Depth To Bottom Of Screer	53.3 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
7:30	48.54	120	120	0.1	25.93	6.68	3.16	3.10	57.8	231	
7:35	48.55	120	120	0.8	26.03	6.76	2.87	2.70	79.8	220	
7:40	48.55	120	120	1.6	26.09	6.82	2.67	2.87	141	212	
7:45	48.55	120	120	2.4	26.14	6.83	2.58	1.91	210	210	
7:50	48.55	120	120	3.0	26.20	6.83	2.56	1.85	197	208	
7:55	48.55	120	120	3.6	26.28	6.85	2.55	1.76	181	207	
8:00	48.55	120	120	4.2	26.47	6.83	2.55	1.69	158	202	
8:05	48.55	120	120	4.8	26.57	6.82	2.56	1.65	141	200	
8:10	48.55	120	120	5.5	26.71	6.81	2.64	1.47	138	198	
8:15	48.55	120	120	6.2	26.83	6.8	3.14	1.20	115	198	
8:20	48.55	120	120	6.8	26.88	6.80	3.66	0.99	120	196	
8:25	48.55	120	120	7.4	26.99	6.82	4.21	0.87	118	192	
8:30	48.55	120	120	8.0	27.10	6.83	4.62	0.80	114	188	
8:35	48.55	120	120	8.7	27.16	6.84	4.9	0.78	112	185	
8:40	48.55	120	120	9.4	27.19	6.85	5.21	0.74	109	182	Sample Time: 9:05
8:45	48.55	120	120	10.0	27.27	6.87	5.42	0.72	106	179	Sample ID: CCR-AP-2R-110823
8:50	48.55	120	120	10.5	27.31	6.88	5.62	0.70	102	175	
8:55	48.55	120	120	11.1	27.41	6.89	5.80	0.67	99.9	173	
9:00	48.55	120	120	11.6	27.40	6.90	5.90	0.64	97.1	170	
9:05	48.55	120	120	12.1	27.50	6.91	5.95	0.62	94.1	167	**STABLE**

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/07/23

Sampling Data:		Well Depth as Built:	94.4 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-2I	Well Depth Measured:	NA ft	Initial Depth To Water:	39.92 ft	Field Parameter Device:	Horiba U-52
Start time:	14:00	Depth To Top Of Screen:	83.0 ft	Depth Of Pump Top:	88 ft	Tubing Present In Well:	[X] Yes [ ] No
Finish Time:	16:35	Depth To Bottom Of Scree	93.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
14:12	41.18	100	100	0.1	30.75	8.02	1.79	1.27	318	149	
14:17	41.81	100	100	0.8	30.25	8.10	1.41	0.77	324	145	
14:22	42.47	100	100	1.3	29.65	8.24	1.26	0.58	177	139	
14:27	43.13	100	100	1.9	29.17	8.32	1.20	0.43	108	131	
14:32	43.79	100	100	2.1	28.88	8.33	1.19	0.36	83.3	122	
14:37	44.58	100	100	2.4	28.91	8.31	1.18	0.32	64.6	115	
14:42	45.28	100	100	2.9	28.95	8.30	1.16	0.32	54.5	107	
14:47	45.72	80	80	3.1	29.04	8.30	1.15	0.30	50.9	102	flow rate lowered to 80 to reduce drawdown
14:52	46.38	80	80	3.5	29.07	8.31	1.13	0.27	41.8	96	
14:57	46.91	60	60	4.0	29.21	8.31	1.13	0.28	39.4	92	flow rate lowered to 60 to reduce drawdown
15:02	47.25	60	60	4.2	29.25	8.31	1.13	0.26	39.7	88	
15:07	47.84	60	60	4.5	29.31	8.31	1.13	0.27	31.4	85	
15:12	48.46	60	60	4.8	29.4	8.32	1.12	0.27	31.5	82	
15:17	48.75	60	60	5.1	29.51	8.32	1.12	0.26	31.4	79	
15:22	48.94	60	60	5.4	29.70	8.31	1.12	0.27	30.9	77	**STABLE**
											Depth to Water after sampling: 54.22'
											Sample Time: 15:22
											Comments: CCR-AP-2I-110723

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/07/23

Sampling Data:		Well Depth as Built:	47.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-3R	Well Depth Measured:	47 ft	Initial Depth To Water:	below top of pump ft	Field Parameter Device:	Horiba U-52
Start time:	10:35	Depth To Top Of Screen:	37.0 ft	Depth Of Pump Intake:	40.64 ft	Tubing Present In Well:	☐ Yes ☐ No
Finish Time:	11:50	Depth To Bottom Of Scree	47.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
10:40	below pump	120	120	0.1	27.44	7.64	10.4	1.72	11.8	134	**air-line would not fully connect to pump so there
10:45	below pump	120	120	0.6	27.05	7.46	10.9	0.63	4.1	121	was air leaking
10:50	below pump	120	120	1.2	26.94	7.42	11.1	0.25	2.4	103	
10:55	below pump	120	120	1.9	26.97	7.42	11.1	0.18	1.5	92	
11:00	below pump	120	120	2.4	27.10	7.42	11.1	0.14	1.2	78	
11:05	below pump	120	120	2.9	27.2	7.42	11.1	0.11	0.7	68	
11:10	below pump	120	120	3.2	27.32	7.43	11.1	0.10	0.9	63	
11:15	below pump	120	120	3.8	27.44	7.43	11.1	0.09	0.5	59	**STABLE**
											Sample Time: 11:15
											Sample ID: CCR-AP-3R-110723

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/07/23

Sampling Data:		Well Depth as Built:	78.3 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-3I	Well Depth Measured:	77.5 ft	Initial Depth To Water:	30.46 ft	Field Parameter Device:	Horiba U-52
Start time:	7:55	Depth To Top Of Screen:	67.5 ft	Depth Of Pump Intake:	60.27 ft	Tubing Present In Well:	☑ Yes ☐ No
Finish Time:	10:30	Depth To Bottom Of Scree	77.8 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
8:17	31.34		100	0.4	26.48	6.88	1.21	2.61	9.4	299	
8:22	31.76		100	0.9	26.27	7.72	1.24	0.97	36.9	176	
8:27	32.22		100	1.4	26.09	7.92	1.29	0.62	48.1	152	
8:33	32.72		100	1.9	26.03	8.02	1.31	0.38	52.8	132	
8:37	33.04		100	2.4	25.99	8.06	1.31	0.33	52.1	122	
8:42	33.28		100	2.9	25.97	8.09	1.31	0.3	55.1	110	
8:47	33.6		100	3.4	25.96	8.1	1.3	0.25	57.1	96	
8:52	34.15		100	3.9	25.92	8.16	1.31	0.2	53	61	
8:57	34.37		100	4.4	25.96	8.14	1.31	0.19	51.4	28	
9:02	34.71		100	4.9	25.98	8.13	1.31	0.17	50.4	-28	
9:07	34.95		80	5.2	26.03	8.16	1.3	0.15	47.6	-51	Flow rate reduced to 80 mL/min to help reduce drawdown
9:12	35.16		80	5.4	26.06	8.19	1.3	0.13	46.2	-62	
9:17	35.36		80	5.6	26.11	8.17	1.3	0.14	45	-75	
9:22	35.62		80	5.9	26.18	8.17	1.3	0.13	42.7	-84	
9:27	35.74		80	6.2	26.19	8.18	1.3	0.13	42.2	-93	
9:32	36.04		80	6.5	26.23	8.19	1.3	0.12	39.2	-99	
9:37	36.13		60	6.7	26.27	8.22	1.3	0.12	36.6	-108	Flow rate reduced to 60 mL/min to help reduce drawdown
9:42	36.32		60	7	26.31	8.24	1.29	0.12	35.5	-114	Sample Time: 09:47 , DTW after sampling 38.48'
9:47			60	7.2	26.35	8.25	1.29	0.13	35	-116	Sample ID: CCR-AP-3I-110723

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/08/23

Sampling Data:		Well Depth as Built:	48.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-4R	Well Depth Measured:	48 ft	Initial Depth To Water:	35.35 ft	Field Parameter Device:	Horiba U-52
Start time:	11:55	Depth To Top Of Screen:	38.0 ft	Depth Of Pump Intake:	44.75 ft	Tubing Present In Well:	☑ Yes ☐ No
Finish Time:	12:55	Depth To Bottom Of Scree	48.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
12:00	35.53		200	0.1	25.01	7.42	1.05	4.99	45.8	181	
12:05	35.72		200	1.3	23.77	7.03	0.945	4.28	27.2	196	
12:10	35.78		200	2.1	23.55	7.11	0.93	4.12	15.8	210	
12:15	35.84		200	3.1	23.42	7.03	0.923	4.13	11.3	214	
12:20	35.84		200	4.1	23.36	7.04	0.919	4.13	9.3	218	
12:25	35.85		200	5.2	23.33	7.1	0.914	4.07	6.8	225	
12:30	35.85		200	6.1	23.33	7	0.912	3.74	5.4	227	Sample Time: 12:35
12:35	35.86		200	7.1	23.38	7.02	0.91	3.96	4.1	230	Sample ID: CCR-AP-4R-110823

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/07/23

Sampling Data:

		Well Depth as Built:	45.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-5R	Well Depth Measured:	44.41 ft	Initial Depth To Water:	36.97 ft	Field Parameter Device:	Horiba U-52
Start time:	12:00	Depth To Top Of Screen:	35.0 ft	Depth Of Pump Intake:	40 ft	Tubing Present In Well:	☑ Yes ☐ No
Finish Time:	13:55	Depth To Bottom Of Scree	45.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
12:08	37.02		200	0.1	30.86	7.35	7.26	1.81	0.8	160	
12:13	37.05		200	1	27.83	7.18	7.34	0.37	0.9	161	
12:18	37.06		200	1.9	26.91	7.22	7.4	0.2	0.3	148	
12:23	37.09		200	2.5	26.51	7.23	7.44	0.14	0.7	142	
12:28	37.06		200	3.1	26.17	7.2	7.49	0.11	0.9	134	
12:33	37.06		200	4.1	26.03	7.25	7.49	0.08	0.7	126	Purge bucket was on a slant. Previous
12:38	37.06		200	5.3	25.96	7.22	7.49	0.06	0.7	119	purge volumes are approximations
12:43	37.06		200	6.2	25.9	7.28	7.5	0.06	0.5	114	
12:48	37.06		200	7.1	25.85	7.27	7.5	0.06	0.5	108	Sample Time: 12:53
12:53	37.06		200	8	25.8	7.28	7.5	0.06	0.4	104	Sample ID: CCR-AP-5R-110723
											MS/MSD

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/08/23

Sampling Data:		Well Depth as Built:	39.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-6	Well Depth Measured:	ft	Initial Depth To Water:	20.04 ft	Field Parameter Device:	Hriba U52
Start time:	13:40	Depth To Top Of Screen:	29.0 ft	Depth Of Pump Intake:	38.6 ft	Tubing Present In Well:	☑ Yes ☐ No
Finish Time:	15:30	Depth To Bottom Of Scree	39.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
13:55	20.82		160	0.25	30.04	7.42	3.51	2.88	803	68	
14:00	21.75		160	2	26.38	6.89	3.75	0.46	665	51	
14:05	22.5		160	3	25.84	6.88	3.75	0.65	334	47	Flow rate changed to 2 CPM at 60 mL/min
14:10	22.69		60	3.25	26.44	6.71	3.78	0.29	305	46	
14:15	22.67		60	3.75	27	6.63	3.82	0.25	266	43	
14:20	22.69		60	4	27.28	6.62	3.83	0.3	252	41	The Horiba was emptied between readings to clean
14:25	22.73		60	4.3	27.54	6.65	3.82	0.99	178	38	the tubidity sensor.
14:30	22.85		60	4.75	27.4	6.62	3.82	0.47	168	29	
14:35	22.85		60	5	27.5	6.59	3.82	0.32	150	19	
14:40	22.9		60	5.1	27.5	6.58	3.83	0.22	126	13	
14:45	22.98		70	5.75	27.37	6.58	3.84	0.21	100	9	
14:50	23.07		70	6	27.18	6.57	3.84	0.21	74.3	4	
14:55	23.09		70	6.3	27.19	6.57	3.84	0.16	74.4	1	
15:00	23.16		70	6.75	27.19	6.57	3.83	0.15	62.4	0	
15:05	23.24		75	7	27	6.57	3.82	0.15	56.4	-2	Sample Time: 15:20
15:10	23.34		75	7.5	26.93	6.57	3.82	0.16	53	-2	Sample ID: CCR-AP-6-110823
15:15	23.45		75	7.9	26.83	6.57	3.81	0.16	50	-3	

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F.Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/09/23

Sampling Data:

Well ID:	CCR-AP-7R	Well Depth as Built:	53.5 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	9:30	Well Depth Measured:	N/A ft	Initial Depth To Water:	36.41 ft	Field Parameter Device:	Horiba U-52
Finish Time:	10:55	Depth To Top Of Screen:	43.5 ft	Depth Of Pump Top:	49.77 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Scree	53.5 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
9:55	36.56		190	0.75	24.62	6.45	4.93	4.85	0	82	
10:00	36.55		190	2	23.45	6.34	5.05	4.74	0	100	
10:05	36.58		190	3	22.98	6.28	5.08	4.68	0	110	
10:10	36.55		190	3.9	22.79	6.25	5.08	4.67	1.1	118	
10:15	36.56		190	4.8	22.7	6.25	5.08	4.76	0	124	
10:20	36.56		190	5.7	22.66	6.25	5.08	4.76	0	130	
10:25	36.55		190	6.5	22.65	6.24	5.08	4.76	0	134	Sample Time: 10:35
10:30	36.55		190	7.4	22.6	6.24	5.08	4.76	0	138	Sample ID: CCR-AP-7R-110923

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/08/23

Sampling Data:

Well ID:	CCR-AP-8	Well Depth as Built:	16.5 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	9:00	Well Depth Measured:	N/A ft	Initial Depth To Water:	4.3 ft	Field Parameter Device:	Horiba U-52
Finish Time:	11:00	Depth To Top Of Screen:	6.2 ft	Depth Of Pump Intake:	12.83 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Scree	16.2 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
9:20	4.44		160	2	28.04	6.64	2.95	0.66	0	176	
9:25	4.42		200	2.5	27.84	6.58	2.96	0.43	0	173	
9:30	4.42		200	3.25	27.7	6.56	2.97	0.26	0	168	
9:35	4.45		200	4.5	27.66	6.54	2.97	0.18	0	95	
9:40	4.45		200	5.5	27.68	6.53	2.97	0.14	0	28	
9:45	4.47		200	6.5	27.7	6.52	2.97	0.11	0	1	
9:50	4.47		200	7.4	27.7	6.51	2.97	0.11	0	-14	
9:55	4.45		200	8.3	27.74	6.51	2.96	0.09	0	-25	
10:00	4.45		200	9.25	27.74	6.5	2.96	0.08	0	-36	Sample Time: 10:15
10:05	4.45		200	10.25	27.77	6.5	2.96	0.07	0	-43	Sample ID: CCR-AP-8-110823
10:10	4.45		200	11.2	27.8	6.49	2.96	0.07	0	-50	Field Dup ID: DUP-1-110823

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/08/23

Sampling Data:		Well Depth as Built:	35.5 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-9R	Well Depth Measured:	N/A ft	Initial Depth To Water:	10.25 ft	Field Parameter Device:	Horbia U-52
Start time:	11:10	Depth To Top Of Screen:	25.2 ft	Depth Of Pump Top:	27.32 ft	Tubing Present In Well:	☑ Yes ☐ No
Finish Time:	13:30	Depth To Bottom Of Scree	35.2 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
11:40	11.71		150	1.75	29.69	6.65	12	2.25	55.4	105	
11:45	12.14		90	2	29.03	6.66	12.3	2.26	51.3	73	
11:50	12.44		100	2.5	29.15	6.68	12.4	2.27	46.6	44	
11:55	12.65		100	3	29.12	6.71	12.4	3	42.3	25	
12:00	12.85		100	3.5	29.09	6.73	12.4	3.11	36.7	13	
12:05	13.05		100	4	28.95	6.74	12.5	3.19	32.9	4	
12:10	13.03		80	4.75	29.16	6.74	12.4	3.08	31.2	2	Changed the flow rate to 2 CPM at 80 mL/min
12:15	13.05		100	5	29.13	6.73	12.5	2.94	30.5	-1	Changed the flow rate to 2 CPM at 100 mL/min
12:20	13.19		100	5.3	29.04	6.73	12.5	2.97	31.1	-5	
12:25	13.4		100	6	28.88	6.73	12.5	2.88	27	-8	
12:30	13.5		100	6.5	28.87	6.71	12.6	2.67	24.2	-10	
12:35	13.54		100	7	28.97	6.7	12.6	2.58	22.2	-12	
12:40	13.55		100	7.5	29	6.7	12.7	2.51	19.7	-15	
12:45	13.58		100	7.9	29.02	6.69	12.7	2.48	18	-18	Sample Time: 12:55
12:50	13.59		100	8.25	28.9	6.69	12.8	2.42	18	-20	Sample ID: CCR-AP-9-110823

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	11/08/23

Sampling Data:

		Well Depth as Built:	43.3 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-10	Well Depth Measured:	43.2 ft	Initial Depth To Water:	39.14 ft	Field Parameter Device:	Horiba U-52
Start time:	10:00	Depth To Top Of Screen:	33.2 ft	Depth Of Pump Intake:	40.53 ft	Tubing Present In Well:	☑ Yes ☐ No
Finish Time:	11:50	Depth To Bottom Of Scree	43.2 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
10:10	39.46		160	0.7	27.53	7	5.24	2.16	504	182	The water line would not connect correctly to the
10:15	39.47		160	1.8	24.99	7.12	4.2	1.25	360	176	tubing, had to secure it with silicone tubing
10:20	39.52		160	2.2	24.23	7.15	3.78	0.69	361	172	
10:25	39.55		160	2.8	24.04	7.14	3.69	0.55	274	171	
10:30	39.56		160	3.4	23.94	7.14	3.64	0.54	178	170	
10:35	39.58		160	4	23.93	7.14	3.62	0.56	139	170	
10:40	39.6		160	4.7	23.88	7.13	3.6	0.52	91.2	170	
10:45	39.62		160	5.2	23.91	7.14	3.59	0.47	69.9	169	
10:50	39.53		160	5.9	23.87	7.13	3.57	0.45	47.8	168	
10:55	39.53		160	6.3	23.8	7.13	3.57	0.44	41.2	168	
11:00	39.64		160	7	23.75	7.13	3.55	0.42	29.7	167	
11:05	39.58		160	7.8	23.66	7.13	3.54	0.4	18.1	167	
11:10	39.58		160	8.3	23.66	7.13	3.53	0.39	16.7	166	
11:15	39.58		160	8.9	23.71	7.13	3.53	0.39	15.2	165	Sample Time: 11:20
11:20	39.6		160	9.5	23.73	7.14	3.53	0.38	14.9	165	Sample ID: CCR-AP-10-110823
											DTW after sampling: 39.64'

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

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PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/07/23

Sampling Data:		Well Depth as Built:	26.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Well ID:	CCR-AP-11	Well Depth Measured:	25.27 ft	Initial Depth To Water:	14.4 ft	Field Parameter Device:	Horiba U-52
Start time:	15:00	Depth To Top Of Screen:	16.0 ft	Depth Of Pump Intake:	19 ft	Tubing Present In Well:	☐ Yes ☑ No
Finish Time:	16:30	Depth To Bottom Of Scree	26.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
15:15	14.68		140	1.5	28.45	7.12	0.88	0.52	6.7	134	
15:20	14.64		200	2.5	27.77	7.02	0.896	0.49	10	126	
15:25	14.7		200	3.5	27.27	6.97	0.903	0.41	11.2	119	
15:30	14.75		200	4.5	26.67	6.93	0.916	0.38	4.7	114	
15:35	14.75		200	5.4	26.88	6.92	0.92	0.4	0	112	
15:40	14.76		200	6.5	26.87	6.91	0.924	0.39	0	112	
15:45	14.77		200	7.5	26.66	6.9	0.929	0.37	0	112	Sample Time: 15:55
15:50	14.77		200	8.75	26.64	6.9	0.933	0.36	0	112	Sample ID: CCR-AP-11-110723
											No dedicated pump, no cap for the 2" PVC, no lock.

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

Page of

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/07/23

Sampling Data:		Well Depth as Built:	18.5 ft	Well Diameter:	1.0 in	Purging Device:	Peristaltic
Well ID:	FD-PZ-1	Well Depth Measured:	17.33 ft	Initial Depth To Water:	8.09 ft	Field Parameter Device:	Horiba U-52
Start time:	11:00	Depth To Top Of Screen:	13.5 ft	Depth Of Pump Intake:	15 ft	Tubing Present In Well:	☐ Yes ☑ No
Finish Time:	12:55	Depth To Bottom Of Scree	18.5 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
11:00	8.27		160	2.25	30.89	7.32	6.57	0.48	205	40	
11:05	8.28		160	2.75	30.51	7.34	6.57	0.28	195	20	
11:10	8.29		160	3.25	30.31	7.34	6.66	0.21	192	-4	
11:15	8.28		160	4	30.07	7.34	6.79	0.17	189	-15	
11:20	8.27		160	5	29.85	7.33	6.93	0.14	186	-20	
11:25	8.27		160	6	29.55	7.31	7.05	0.14	177	-23	
11:30	8.27		160	6.85	28.03	7.3	7.3	0.17	1.5	-26	Horiba auto shutoff/ turned back on
11:35	8.27		160	7.75	27.88	7.29	7.33	0.12	0	-27	
11:40	8.27		160	8.5	27.72	7.28	7.37	0.1	0	-29	
11:45	8.27		160	9.25	27.55	7.28	7.4	0.09	0	-30	
11:50	8.27		160	10	27.46	7.28	7.41	0.08	0	-31	
11:55	8.27		160	11	27.42	7.28	7.44	0.06	0	-32	
12:00	8.27		160	11.9	27.41	7.28	7.45	0.08	0	-33	
12:05	8.27		160	12.8	27.34	7.28	7.46	0.06	0	-34	Sample Time: 12:15
12:10	8.27		160	13.75	27.3	7.28	7.48	0.06	0	-35	Sample ID: FD-PZ-1-110723

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/07/23 - 11/08/23

Sampling Data:		Well Depth as Built:	34.0 ft	Well Diameter:	1.0 in	Purging Device:	Peristaltic
Well ID:	FD-PZ-2	Well Depth Measured:	33.18 ft	Initial Depth To Water:	5.96 ft	Field Parameter Device:	Horiba U-52
Start time:	13:00	Depth To Top Of Screen:	24.0 ft	Depth Of Pump Intake:	28 ft	Tubing Present In Well:	☐ Yes ☑ No
Finish Time:	8:45	Depth To Bottom Of Scree	34.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	LDPE

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
13:25	8.14		200	1	32.89	7.68	0.965	0.48	151	78	
13:30	10.26		160	2	29.04	7.27	0.771	0.17	55.3	27	
13:35	11.91		140	3	28.51	7.13	0.746	0.13	20	14	140 mL/min is th elowest the peristaltic pump would
13:40	13.78		140	4	28.3	7.05	0.729	0.1	30.4	9	allow
13:45	15.11		140	4.5	28.32	7.02	0.706	0.09	23.1	9	
13:50	16.64		140	5	28.28	7.01	0.681	0.07	30	12	
13:55	18.04		140	5.8	28.18	7	0.664	0.1	31.2	16	
14:00	19.44		140	6.5	28.18	7	0.651	0.13	22	21	
14:05	20.71		140	7.25	28.23	7	0.646	0.17	29.2	26	
14:10	21.91		140	8	28.58	7.01	0.626	0.19	24.7	31	
14:15	22.98		120	8.5	28.63	7.01	0.62	0.21	24.6	35	
	The drawdown is too high and the pump will not allow for a slower purge rate. Opted to purge 3 well volumes (~3.33 gallons)										
	3.5 gallons were purged from the well. It will be sampled in the morning 11/08/23.										
											11/08/23 initial DTW: 15.92'
8:10	17.78		160	1	27.5	6.42	0.815	0.61	33.7	174	
8:15	18.6		160	2	27.16	6.57	0.807	0.67	43.9	164	Sample Time: 08:15
											Sample ID: FD-PZ-2-110823

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/07/23

Sampling Data:

Well ID:	MH-1	Well Depth as Built:	NA ft	Well Diameter:	36.0 in	Purging Device:	Peristaltic
Start time:	9:00	Well Depth Measured:	ft	Initial Depth To Water:	10 ft	Field Parameter Device:	Horiba U-53
Finish Time:	9:30	Depth To Top Of Screen:	NA ft	Depth Of Pump Intake:	10.25 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Scree	NA ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	LDPE

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
9:10	10		250	0.5	26.63	6.31	8.07	0.42	0	180	Sample Time: 09:15
											Sample ID: MH-1-110723

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/07/23

Sampling Data:

		Well Depth as Built:	NA ft	Well Diameter:	36.0 in	Purging Device:	Peristaltic
Well ID:	MH-2	Well Depth Measured:	11.65 ft	Initial Depth To Water:	11.25 ft	Field Parameter Device:	Horiba U-52
Start time:	9:35	Depth To Top Of Screen:	NA ft	Depth Of Pump Intake:	11.5 ft	Tubing Present In Well:	☐ Yes ☑ No
Finish Time:	10:15	Depth To Bottom Of Scree	NA ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	LDPE

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
9:50	11.25		200	1	27.53	6.71	8.28	1.36	0	163	Sample Time: 09:55
											Sample ID: MH-2-110723

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

APPENDIX C
Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mark Miesfeldt
Haley & Aldrich, Inc.
400 Augusta Street
Suite 100
Greenville, South Carolina 29601

Generated 6/27/2023 9:16:43 AM

JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

180-156535-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization

Generated
6/27/2023 9:16:43 AM

Authorized for release by
Ken Hayes, Project Manager II
Ken.Hayes@et.eurofinsus.com
(615)301-5035

Table of Contents

Job ID: 180-156535-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative
180-156535-1

Receipt
The samples were received on 5/12/2023 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 9 coolers at receipt time were 0.8°C, 1.9°C, 2.7°C, 3.0°C, 3.8°C, 4.7°C, 4.9°C, 5.8°C and 5.9°C

Receipt Exceptions
The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): DUP-1-050923 (180-156535-22)

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 prep batch 160-612568The barium carrier recovery is outside the upper control limit (110%) for the following sample:There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium-226 batch 612568The Ba Carrier recovery is outside the upper control limit (110%) for the following sample: CCR-AP-10-051023 (180-156535-8). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The sample has been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported.

Method 9315_Ra226: Radium-226 batch 612568Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.CCR-AP-5R-050923 (180-156535-1), CCR-AP-5R-050923 (180-156535-1[DU]), CCR-AP-3I-050923 (180-156535-2), CCR-AP-3R-050923 (180-156535-3), FD-P2-2-051023 (180-156535-4), CCR-BK-2-051023 (180-156535-5), CCR-AP-11-051023 (180-156535-6), CCR-AP-4R-051023 (180-156535-7), CCR-AP-10-051023 (180-156535-8), CCR-AP-2R-051023 (180-156535-9), CCR-AP-9-051023 (180-156535-10), CCR-AP-7R-051123 (180-156535-11), CCR-AP-2I-050923 (180-156535-12), CCR-AP-1R-051023 (180-156535-13), FB-1-051123 (180-156535-14), (LCS 160-612568/2-A) and (MB 160-612568/1-A)

Method 9315_Ra226: Radium-226 prep batch 612569Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-2-051123 (180-156535-15), MH-2-05092023 (180-156535-16), CCR-AP-8-05092023 (180-156535-17), CCR-AP-6-051023 (180-156535-18), FD-PZ-1-05092023 (180-156535-19), MH-1-05092023 (180-156535-20), CCR-BK-1R-051123 (180-156535-21), DUP-1-050923 (180-156535-22), (LCS 160-612569/2-A), (LCSD 160-612569/3-A) and (MB 160-612569/1-A)

Method 9320_Ra228: Radium 228 prep batch 160-612632The barium carrier recovery is outside the upper control limit (110%) for the following sample: There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9320_Ra228: Radium-228 batch 612632The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: FD-P2-2-051023 (180-156535-4). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 batch 612632The Ba Carrier recovery is outside the upper control limit (110%) for the following sample: CCR-AP-10-051023 (180-156535-8). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The sample has been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported.

Method 9320_Ra228: Radium-228 batch 612632Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample

Job ID: 180-156535-1 (Continued)

Laboratory: Eurofins Pittsburgh (Continued)

results are reported with the count date/time applied as the Activity Reference Date.CCR-AP-5R-050923 (180-156535-1), CCR-AP-5R-050923 (180-156535-1[DU]), CCR-AP-3I-050923 (180-156535-2), CCR-AP-3R-050923 (180-156535-3), FD-P2-2-051023 (180-156535-4), CCR-BK-2-051023 (180-156535-5), CCR-AP-11-051023 (180-156535-6), CCR-AP-4R-051023 (180-156535-7), CCR-AP-10-051023 (180-156535-8), CCR-AP-2R-051023 (180-156535-9), CCR-AP-9-051023 (180-156535-10), CCR-AP-7R-051123 (180-156535-11), CCR-AP-2I-050923 (180-156535-12), CCR-AP-1R-051023 (180-156535-13), FB-1-051123 (180-156535-14), (LCS 160-612632/2-A) and (MB 160-612632/1-A)

Method 9320_Ra228: Radium-228 batch 612683The LCS recovered at (130%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (62-148%) per method requirements. The LCS passes, no further action is required (LCS 160-612683/2-A)

Method 9320_Ra228: Radium-228 batch 612683Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.FB-2-051123 (180-156535-15), MH-2-05092023 (180-156535-16), CCR-AP-8-05092023 (180-156535-17), CCR-AP-6-051023 (180-156535-18), FD-PZ-1-05092023 (180-156535-19), MH-1-05092023 (180-156535-20), CCR-BK-1R-051123 (180-156535-21), DUP-1-050923 (180-156535-22), (LCS 160-612683/2-A), (LCSD 160-612683/3-A) and (MB 160-612683/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Narrative

Job Narrative
180-156535-2

Receipt

The samples were received on 5/12/2023 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 9 coolers at receipt time were 0.8°C, 1.9°C, 2.7°C, 3.0°C, 3.8°C, 4.7°C, 4.9°C, 5.8°C and 5.9°C

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): DUP-1-050923 (180-156535-22)

HPLC/IC

Method 9056A_ORGFM_28D: Due to the high concentration of sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 180-435094 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: CCR-AP-5R-050923 (180-156535-1), CCR-AP-5R-050923 (180-156535-1[MS]), CCR-AP-5R-050923 (180-156535-1[MSD]), CCR-AP-3R-050923 (180-156535-3), CCR-AP-10-051023 (180-156535-8), CCR-AP-2R-051023 (180-156535-9), CCR-AP-9-051023 (180-156535-10), CCR-AP-7R-051123 (180-156535-11), MH-2-05092023 (180-156535-16), CCR-AP-8-05092023 (180-156535-17), CCR-AP-6-051023 (180-156535-18), FD-PZ-1-05092023 (180-156535-19), MH-1-05092023 (180-156535-20) and DUP-1-050923 (180-156535-22) at 5.0, 5.0, 5.0, 10.0, 2.5, 5.0, 10.0, 2.5, 5.0, 2.5, 2.5, 5.0, 5.0 and 10.0. Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: Due to the high concentration of chloride, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 180-435094 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 180-156535-1 (Continued)

Laboratory: Eurofins Pittsburgh (Continued)

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 2540C_Calcd: Sample did not reach a stable weight after 4 weigh backs. Sample results are reported for the third weigh back.CCR-AP-5R-050923 (180-156535-1), CCR-AP-5R-050923 (180-156535-1[DU]), CCR-AP-3R-050923 (180-156535-3), FD-P2-2-051023 (180-156535-4), CCR-AP-11-051023 (180-156535-6), CCR-AP-2I-050923 (180-156535-12), MH-2-05092023 (180-156535-16), CCR-AP-8-05092023 (180-156535-17), FD-PZ-1-05092023 (180-156535-19), MH-1-05092023 (180-156535-20) and DUP-1-050923 (180-156535-22)

Method 2540C_Calcd: Sample did not reach a stable weight after 4 cycles of drying, cooling, and desiccating. Sample result 3 weight used for final result.CCR-AP-2R-051023 (180-156535-9) and CCR-AP-9-051023 (180-156535-10)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Job ID: 180-156535-1
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-25-23
California	State	2891	04-30-24
Connecticut	State	PH-0688	06-25-23
Florida	NELAP	E871008	06-25-23
Georgia	State	PA 02-00416	06-25-23
Illinois	NELAP	004375	06-30-24
Kansas	NELAP	E-10350	06-25-23
Kentucky (UST)	State	162013	04-30-23 *
Kentucky (WW)	State	KY98043	06-25-23
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-25-23
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	06-25-23
New Hampshire	NELAP	2030	06-25-23
New Jersey	NELAP	PA005	06-25-23
New York	NELAP	11182	06-25-23
North Carolina (WW/SW)	State	434	12-31-23
North Dakota	State	R-227	04-30-24
Oregon	NELAP	PA-2151	02-06-24
Pennsylvania	NELAP	02-00416	06-25-23
Rhode Island	State	LAO00362	12-31-22 *
South Carolina	State	89014	04-30-23 *
Texas	NELAP	T104704528	06-25-23
US Fish & Wildlife	US Federal Programs	058448	03-31-24
USDA	US Federal Programs	P330-16-00211	06-21-24
Utah	NELAP	PA001462019-8	05-31-24
Virginia	NELAP	10043	06-25-23
West Virginia DEP	State	142	06-25-23
Wisconsin	State	998027800	08-31-23

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc. Job ID: 180-156535-1
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Cleveland (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-24
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-156535-1	CCR-AP-5R-050923	Water	05/09/23 12:30	05/12/23 09:45
180-156535-2	CCR-AP-3I-050923	Water	05/09/23 15:25	05/12/23 09:45
180-156535-3	CCR-AP-3R-050923	Water	05/09/23 17:20	05/12/23 09:45
180-156535-4	FD-P2-2-051023	Water	05/10/23 11:00	05/12/23 09:45
180-156535-5	CCR-BK-2-051023	Water	05/10/23 14:45	05/12/23 09:45
180-156535-6	CCR-AP-11-051023	Water	05/10/23 12:45	05/12/23 09:45
180-156535-7	CCR-AP-4R-051023	Water	05/10/23 16:50	05/12/23 09:45
180-156535-8	CCR-AP-10-051023	Water	05/10/23 15:25	05/12/23 09:45
180-156535-9	CCR-AP-2R-051023	Water	05/10/23 09:35	05/12/23 09:45
180-156535-10	CCR-AP-9-051023	Water	05/10/23 11:20	05/12/23 09:45
180-156535-11	CCR-AP-7R-051123	Water	05/11/23 07:50	05/12/23 09:45
180-156535-12	CCR-AP-2I-050923	Water	05/09/23 10:15	05/12/23 09:45
180-156535-13	CCR-AP-1R-051023	Water	05/10/23 13:20	05/12/23 09:45
180-156535-14	FB-1-051123	Water	05/11/23 11:50	05/12/23 09:45
180-156535-15	FB-2-051123	Water	05/11/23 12:20	05/12/23 09:45
180-156535-16	MH-2-05092023	Water	05/09/23 11:25	05/12/23 09:45
180-156535-17	CCR-AP-8-05092023	Water	05/09/23 17:05	05/12/23 09:45
180-156535-18	CCR-AP-6-051023	Water	05/10/23 09:20	05/12/23 09:45
180-156535-19	FD-PZ-1-05092023	Water	05/09/23 10:15	05/12/23 09:45
180-156535-20	MH-1-05092023	Water	05/09/23 12:50	05/12/23 09:45
180-156535-21	CCR-BK-1R-051123	Water	05/11/23 08:20	05/12/23 09:45
180-156535-22	DUP-1-050923	Water	05/09/23 17:20	05/12/23 09:45

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-AP-5R-050923

Lab Sample ID: 180-156535-1

Date Collected: 05/09/23 12:30

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 17:27	SNL	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	435094	05/13/23 18:22	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		5			578400	06/24/23 07:30	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:06	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:18	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 10:46	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			997.71 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616059	06/14/23 18:43	FLC	EET SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			997.71 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616060	06/14/23 12:48	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-3I-050923

Lab Sample ID: 180-156535-2

Date Collected: 05/09/23 15:25

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 14:41	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 18:30	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:25	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:21	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 11:04	BAB	EET PIT
	Instrument ID: OZ									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-AP-3I-050923

Lab Sample ID: 180-156535-2

Date Collected: 05/09/23 15:25

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
Total/NA	Prep	PrecSep-21			750.68 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616059	06/14/23 18:43	FLC	EET SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			750.68 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616060	06/14/23 12:49	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-3R-050923

Lab Sample ID: 180-156535-3

Date Collected: 05/09/23 17:20

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 15:54	SNL	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	435094	05/13/23 16:13	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		5			578400	06/24/23 07:48	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:27	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:22	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 10:58	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	15 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1003.23 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616059	06/14/23 18:43	FLC	EET SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			1003.23 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616060	06/14/23 12:49	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: FD-P2-2-051023

Lab Sample ID: 180-156535-4

Date Collected: 05/10/23 11:00

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 14:59	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 18:39	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:30	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	437052	06/06/23 07:00	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:53	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 11:18	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			501.62 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616059	06/14/23 18:43	FLC	EET SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			501.62 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616060	06/14/23 12:49	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-BK-2-051023

Lab Sample ID: 180-156535-5

Date Collected: 05/10/23 14:45

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 16:31	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 18:43	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:33	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:24	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 11:01	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-BK-2-051023

Lab Sample ID: 180-156535-5
Matrix: Water
Date Collected: 05/10/23 14:45
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			997.61 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616059	06/14/23 18:44	FLC	EET SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			997.61 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616060	06/14/23 12:50	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-11-051023

Lab Sample ID: 180-156535-6
Matrix: Water
Date Collected: 05/10/23 12:45
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 16:50	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 18:47	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:35	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:25	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 10:52	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			991.96 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616059	06/14/23 18:44	FLC	EET SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			991.96 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616060	06/14/23 12:50	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-4R-051023

Lab Sample ID: 180-156535-7
Matrix: Water
Date Collected: 05/10/23 16:50
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 17:08	SNL	EET PIT
	Instrument ID: INTEGRION									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-AP-4R-051023

Lab Sample ID: 180-156535-7

Date Collected: 05/10/23 16:50

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 18:52	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:38	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:30	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 10:55	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435225	05/15/23 17:46	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			996.12 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616060	06/14/23 18:45	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			996.12 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616060	06/14/23 12:50	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-10-051023

Lab Sample ID: 180-156535-8

Date Collected: 05/10/23 15:25

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	435094	05/13/23 19:55	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 18:56	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:41	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:31	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 09:40	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	435225	05/15/23 17:46	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			992.70 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616060	06/14/23 18:45	FLC	EET SL
	Instrument ID: GFPCRED									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-AP-10-051023

Lab Sample ID: 180-156535-8
Matrix: Water
Date Collected: 05/10/23 15:25
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			992.70 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616060	06/14/23 12:50	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-2R-051023

Lab Sample ID: 180-156535-9
Matrix: Water
Date Collected: 05/10/23 09:35
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 20:13	SNL	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	435094	05/13/23 20:31	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		5			578400	06/24/23 07:52	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:43	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:32	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 10:38	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	435225	05/15/23 17:46	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			747.31 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616061	06/14/23 20:37	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			747.31 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616061	06/14/23 12:53	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-9-051023

Lab Sample ID: 180-156535-10
Matrix: Water
Date Collected: 05/10/23 11:20
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 20:50	SNL	EET PIT
	Instrument ID: INTEGRION									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-AP-9-051023

Date Collected: 05/10/23 11:20
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	435094	05/13/23 21:08	SNL	EET PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		5			578400	06/24/23 07:56	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:46	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:33	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 11:07	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	15 mL	100 mL	435225	05/15/23 17:46	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			748.46 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616061	06/14/23 20:37	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			748.46 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616061	06/14/23 12:53	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-7R-051123

Date Collected: 05/11/23 07:50
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	435094	05/13/23 21:27	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 19:10	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:49	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:34	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 10:00	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	435349	05/16/23 17:00	LWM	EET PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-AP-7R-051123

Lab Sample ID: 180-156535-11
Matrix: Water
Date Collected: 05/11/23 07:50
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			995.13 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616061	06/14/23 20:37	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			995.13 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616061	06/14/23 12:53	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-2I-050923

Lab Sample ID: 180-156535-12
Matrix: Water
Date Collected: 05/09/23 10:15
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 21:45	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 19:23	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 15:57	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:35	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 11:23	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			993.84 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616061	06/14/23 20:37	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			993.84 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616061	06/14/23 12:53	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-1R-051023

Lab Sample ID: 180-156535-13
Matrix: Water
Date Collected: 05/10/23 13:20
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/14/23 00:50	SNL	EET PIT
	Instrument ID: INTEGRION									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-AP-1R-051023

Date Collected: 05/10/23 13:20
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 19:27	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 16:00	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:36	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 10:35	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435225	05/15/23 17:46	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			992.92 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616061	06/14/23 20:37	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			992.92 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616061	06/14/23 12:53	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: FB-1-051123

Date Collected: 05/11/23 11:50
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 22:04	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 19:32	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 16:02	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:37	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			436668	05/31/23 16:32	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435349	05/16/23 17:00	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			997.89 mL	1.0 g	612568	05/22/23 11:40	KAC	EET SL
Total/NA	Analysis	9315		1			616061	06/14/23 20:37	FLC	EET SL
	Instrument ID: GFPCBLUE									

Client Sample ID: FB-1-051123
Lab Sample ID: 180-156535-14
Date Collected: 05/11/23 11:50
Matrix: Water
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			997.89 mL	1.0 g	612632	05/22/23 12:57	KAC	EET SL
Total/NA	Analysis	9320		1			616061	06/14/23 12:53	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616136	06/15/23 10:47	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: FB-2-051123
Lab Sample ID: 180-156535-15
Date Collected: 05/11/23 12:20
Matrix: Water
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 22:22	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 19:36	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 16:05	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:38	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435740	05/20/23 09:54	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435349	05/16/23 17:00	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			991.32 mL	1.0 g	612569	05/22/23 11:44	KAC	EET SL
Total/NA	Analysis	9315		1			616372	06/16/23 13:35	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			991.32 mL	1.0 g	612683	05/22/23 16:32	KAC	EET SL
Total/NA	Analysis	9320		1			616372	06/16/23 10:56	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616533	06/16/23 16:50	SCB	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: MH-2-05092023
Lab Sample ID: 180-156535-16
Date Collected: 05/09/23 11:25
Matrix: Water
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/13/23 23:18	SNL	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	435094	05/13/23 23:36	SNL	EET PIT
	Instrument ID: INTEGRION									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: MH-2-05092023

Date Collected: 05/09/23 11:25
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		5			578400	06/24/23 08:01	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 16:08	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:39	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435462	05/17/23 13:01	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			995.41 mL	1.0 g	612569	05/22/23 11:44	KAC	EET SL
Total/NA	Analysis	9315		1			616372	06/16/23 13:36	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			995.41 mL	1.0 g	612683	05/22/23 16:32	KAC	EET SL
Total/NA	Analysis	9320		1			616372	06/16/23 10:57	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616533	06/16/23 16:50	SCB	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-8-05092023

Date Collected: 05/09/23 17:05
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	435094	05/13/23 23:54	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 19:45	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 16:10	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:44	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435462	05/17/23 12:58	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			990.86 mL	1.0 g	612569	05/22/23 11:44	KAC	EET SL
Total/NA	Analysis	9315		1			616372	06/16/23 13:36	FLC	EET SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-AP-8-05092023

Lab Sample ID: 180-156535-17

Date Collected: 05/09/23 17:05

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			990.86 mL	1.0 g	612683	05/22/23 16:32	KAC	EET SL
Total/NA	Analysis	9320		1			616372	06/16/23 10:57	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616533	06/16/23 16:50	SCB	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-6-051023

Lab Sample ID: 180-156535-18

Date Collected: 05/10/23 09:20

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	435094	05/14/23 01:45	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 19:49	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 16:13	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:45	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435462	05/17/23 12:56	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	435225	05/15/23 17:46	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			745.97 mL	1.0 g	612569	05/22/23 11:44	KAC	EET SL
Total/NA	Analysis	9315		1			616372	06/16/23 13:36	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			745.97 mL	1.0 g	612683	05/22/23 16:32	KAC	EET SL
Total/NA	Analysis	9320		1			616372	06/16/23 10:57	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616533	06/16/23 16:50	SCB	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: FD-PZ-1-05092023

Lab Sample ID: 180-156535-19

Date Collected: 05/09/23 10:15

Matrix: Water

Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/14/23 03:18	SNL	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	435094	05/14/23 03:36	SNL	EET PIT
	Instrument ID: INTEGRION									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: FD-PZ-1-05092023

Date Collected: 05/09/23 10:15
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-19

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		5			578400	06/24/23 08:05	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 16:16	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:46	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435462	05/17/23 13:10	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			748.07 mL	1.0 g	612569	05/22/23 11:44	KAC	EET SL
Total/NA	Analysis	9315		1			616372	06/16/23 13:36	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			748.07 mL	1.0 g	612683	05/22/23 16:32	KAC	EET SL
Total/NA	Analysis	9320		1			616372	06/16/23 10:57	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616533	06/16/23 16:50	SCB	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: MH-1-05092023

Date Collected: 05/09/23 12:50
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/14/23 02:04	SNL	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	435094	05/14/23 02:59	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6010D		5			578400	06/24/23 08:10	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578145	06/22/23 14:00	BN	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 16:18	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436973	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 11:47	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435462	05/17/23 13:07	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: MH-1-05092023

Lab Sample ID: 180-156535-20
Matrix: Water
Date Collected: 05/09/23 12:50
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			996.22 mL	1.0 g	612569	05/22/23 11:44	KAC	EET SL
Total/NA	Analysis	9315		1			616372	06/16/23 13:36	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			996.22 mL	1.0 g	612683	05/22/23 16:32	KAC	EET SL
Total/NA	Analysis	9320		1			616372	06/16/23 10:57	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616533	06/16/23 16:50	SCB	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-BK-1R-051123

Lab Sample ID: 180-156535-21
Matrix: Water
Date Collected: 05/11/23 08:20
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/14/23 04:32	SNL	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	578155	06/22/23 14:00	GK	EET CLE
Total Recoverable	Analysis	6010D		1			578400	06/23/23 11:47	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578155	06/22/23 14:00	GK	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 14:56	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436976	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 12:02	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435462	05/17/23 12:36	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	435349	05/16/23 17:00	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			757.91 mL	1.0 g	612569	05/22/23 11:44	KAC	EET SL
Total/NA	Analysis	9315		1			616372	06/16/23 13:36	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			757.91 mL	1.0 g	612683	05/22/23 16:32	KAC	EET SL
Total/NA	Analysis	9320		1			616372	06/16/23 10:57	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			616533	06/16/23 16:50	SCB	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1-050923

Lab Sample ID: 180-156535-22
Matrix: Water
Date Collected: 05/09/23 17:20
Date Received: 05/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	435094	05/14/23 03:55	SNL	EET PIT
	Instrument ID: INTEGRION									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: DUP-1-050923

Date Collected: 05/09/23 17:20
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-22

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	435094	05/14/23 04:13	SNL	EET PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	578155	06/22/23 14:00	GK	EET CLE
Total Recoverable	Analysis	6010D		10			578400	06/23/23 22:20	RKT	EET CLE
	Instrument ID: I9									
Total Recoverable	Prep	3005A			50 mL	50 mL	578155	06/22/23 14:00	GK	EET CLE
Total Recoverable	Analysis	6020B		1			578501	06/23/23 14:59	DSH	EET CLE
	Instrument ID: I14									
Total/NA	Prep	7470A			25 mL	25 mL	436976	06/05/23 10:15	MTW	EET PIT
Total/NA	Analysis	EPA 7470A		1			437135	06/06/23 12:05	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			435462	05/17/23 12:38	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	15 mL	100 mL	435221	05/15/23 16:55	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			998.56 mL	1.0 g	612569	05/22/23 11:44	KAC	EET SL
Total/NA	Analysis	9315		1			616372	06/16/23 13:36	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			998.56 mL	1.0 g	612683	05/22/23 16:32	KAC	EET SL
Total/NA	Analysis	9320		1			616522	06/16/23 10:54	FLC	EET SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			616533	06/16/23 16:50	SCB	EET SL
	Instrument ID: NOEQUIP									

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Analyst References:

Lab: EET CLE
- Batch Type: Prep
  - BN = Benjamin Norman
  - GK = Grace Kessler
- Batch Type: Analysis
  - DSH = David Heakin
  - RKT = Roger Toth

Lab: EET PIT
- Batch Type: Prep
  - MTW = Michael Wesoloski
- Batch Type: Analysis
  - BAB = Brooke Batyi
  - LWM = Leslie McIntire
  - MTW = Michael Wesoloski
  - SNL = Sean Lordo

Lab: EET SL
- Batch Type: Prep
  - KAC = Kevin Cox
- Batch Type: Analysis
  - EMH = Elizabeth Hoerchler
  - FLC = Fernando Cruz
  - SCB = Sarah Bernsen

Client Sample ID: CCR-AP-5R-050923
Lab Sample ID: 180-156535-1

Date Collected: 05/09/23 12:30
Matrix: Water

Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	500		1.0	0.71	mg/L			05/13/23 17:27	1
Fluoride	0.32		0.10	0.026	mg/L			05/13/23 17:27	1
Sulfate	3500		5.0	3.8	mg/L			05/13/23 18:22	5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15000		500	290	ug/L		06/22/23 14:00	06/24/23 07:30	5

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00094	J	0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:06	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:06	1
Barium	0.021		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:06	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:06	1
Cadmium	0.00022	J	0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:06	1
Calcium	540		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:06	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:06	1
Cobalt	0.00021	J	0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:06	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:06	1
Lithium	0.017		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:06	1
Molybdenum	0.14	B	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:06	1
Selenium	0.00092	J	0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:06	1
Thallium	0.00031	J	0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:06	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6100		40	40	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.2	HF	0.1	0.1	SU			05/20/23 10:46	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0606	U	0.160	0.160	1.00	0.348	pCi/L	05/22/23 11:40	06/14/23 18:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.0*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.375	U	0.329	0.331	1.00	0.518	pCi/L	05/22/23 12:57	06/14/23 12:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.0*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:48*	*1*

Client Sample ID: CCR-AP-5R-050923

Lab Sample ID: 180-156535-1
Matrix: Water
Date Collected: 05/09/23 12:30
Date Received: 05/12/23 09:45

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	84.8		30 - 110	05/22/23 12:57	06/14/23 12:48	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.314	U	0.366	0.368	5.00	0.518	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-3I-050923

Lab Sample ID: 180-156535-2
Matrix: Water
Date Collected: 05/09/23 15:25
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		1.0	0.71	mg/L			05/13/23 14:41	1
Fluoride	1.3		0.10	0.026	mg/L			05/13/23 14:41	1
Sulfate	16		1.0	0.76	mg/L			05/13/23 14:41	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2300		100	57	ug/L		06/22/23 14:00	06/23/23 18:30	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00088	J	0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:25	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:25	1
Barium	0.15		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:25	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:25	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:25	1
Calcium	16		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:25	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:25	1
Cobalt	0.00038	J	0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:25	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:25	1
Lithium	0.023		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:25	1
Molybdenum	0.0012	J B	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:25	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:25	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:25	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	640		10	10	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	8.2	HF	0.1	0.1	SU			05/20/23 11:04	1

Client Sample ID: CCR-AP-3I-050923

Lab Sample ID: 180-156535-2

Date Collected: 05/09/23 15:25

Matrix: Water

Date Received: 05/12/23 09:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.452		0.312	0.315	1.00	0.441	pCi/L	05/22/23 11:40	06/14/23 18:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.8*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.08		0.526	0.536	1.00	0.722	pCi/L	05/22/23 12:57	06/14/23 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.8*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:49*	*1*
Y Carrier	*85.7*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:49*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.53		0.612	0.622	5.00	0.722	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-3R-050923

Lab Sample ID: 180-156535-3

Date Collected: 05/09/23 17:20

Matrix: Water

Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	830		1.0	0.71	mg/L			05/13/23 15:54	1
Fluoride	0.94		0.10	0.026	mg/L			05/13/23 15:54	1
Sulfate	5000		10	7.6	mg/L			05/13/23 16:13	10

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	14000		500	290	ug/L		06/22/23 14:00	06/24/23 07:48	5

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:27	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:27	1
Barium	0.019		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:27	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:27	1
Cadmium	0.00031	J	0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:27	1
Calcium	430		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:27	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:27	1
Cobalt	0.00047	J	0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:27	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:27	1
Lithium	0.075		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:27	1
Molybdenum	0.69	B	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:27	1
Selenium	0.0025	J	0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:27	1

Client Sample ID: CCR-AP-3R-050923

Lab Sample ID: 180-156535-3

Date Collected: 05/09/23 17:20

Matrix: Water

Date Received: 05/12/23 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:27	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**8400**		67	67	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.4**	**HF**	0.1	0.1	SU			05/20/23 10:58	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.178	U	0.202	0.203	1.00	0.327	pCi/L	05/22/23 11:40	06/14/23 18:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.0*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.02**		0.437	0.447	1.00	0.586	pCi/L	05/22/23 12:57	06/14/23 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.0*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:49*	*1*
Y Carrier	*83.4*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:49*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.20**		0.481	0.491	5.00	0.586	pCi/L		06/15/23 10:47	1

Client Sample ID: FD-P2-2-051023

Lab Sample ID: 180-156535-4

Date Collected: 05/10/23 11:00

Matrix: Water

Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.1**		1.0	0.71	mg/L			05/13/23 14:59	1
Fluoride	**0.13**		0.10	0.026	mg/L			05/13/23 14:59	1
Sulfate	**7.8**		1.0	0.76	mg/L			05/13/23 14:59	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		06/22/23 14:00	06/23/23 18:39	1

Client Sample ID: FD-P2-2-051023

Date Collected: 05/10/23 11:00
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-4

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:30	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:30	1
Barium	**0.13**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:30	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:30	1
Cadmium	**0.00045**	**J**	0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:30	1
Calcium	**110**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:30	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:30	1
Cobalt	**0.0019**		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:30	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:30	1
Lithium	**0.0076**	**J**	0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:30	1
Molybdenum	**0.0022**	**J B**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:30	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:30	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:30	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/06/23 07:00	06/06/23 11:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**480**		10	10	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.4**	**HF**	0.1	0.1	SU			05/20/23 11:18	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.511	U	0.473	0.475	1.00	0.730	pCi/L	05/22/23 11:40	06/14/23 18:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.5*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0219	U G	0.689	0.689	1.00	1.29	pCi/L	05/22/23 12:57	06/14/23 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.5*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:49*	*1*
Y Carrier	*85.1*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:49*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.533	U	0.836	0.837	5.00	1.29	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-BK-2-051023

Date Collected: 05/10/23 14:45
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-5

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18**		1.0	0.71	mg/L			05/13/23 16:31	1
Fluoride	**0.099**	**J**	0.10	0.026	mg/L			05/13/23 16:31	1
Sulfate	**22**		1.0	0.76	mg/L			05/13/23 16:31	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		06/22/23 14:00	06/23/23 18:43	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:33	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:33	1
Barium	**0.032**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:33	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:33	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:33	1
Calcium	**40**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:33	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:33	1
Cobalt	ND		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:33	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:33	1
Lithium	**0.0022**	**J**	0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:33	1
Molybdenum	ND		0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:33	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:33	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:33	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**240**		10	10	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.0**	**HF**	0.1	0.1	SU			05/20/23 11:01	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0552	U	0.192	0.192	1.00	0.402	pCi/L	05/22/23 11:40	06/14/23 18:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.8*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.311	U	0.346	0.347	1.00	0.565	pCi/L	05/22/23 12:57	06/14/23 12:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.8*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:50*	*1*

Client Sample ID: CCR-BK-2-051023
Lab Sample ID: 180-156535-5
Date Collected: 05/10/23 14:45
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	82.3		30 - 110	05/22/23 12:57	06/14/23 12:50	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.256	U	0.396	0.397	5.00	0.565	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-11-051023
Lab Sample ID: 180-156535-6
Date Collected: 05/10/23 12:45
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56		1.0	0.71	mg/L			05/13/23 16:50	1
Fluoride	0.094	J	0.10	0.026	mg/L			05/13/23 16:50	1
Sulfate	230		1.0	0.76	mg/L			05/13/23 16:50	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	640		100	57	ug/L		06/22/23 14:00	06/23/23 18:47	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:35	1
Arsenic	0.00077	J	0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:35	1
Barium	0.056		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:35	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:35	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:35	1
Calcium	140		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:35	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:35	1
Cobalt	0.00036	J	0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:35	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:35	1
Lithium	0.0091		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:35	1
Molybdenum	0.0011	J B	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:35	1
Selenium	0.012		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:35	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:35	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	810		10	10	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.2	HF	0.1	0.1	SU			05/20/23 10:52	1

Client Sample ID: CCR-AP-11-051023

Lab Sample ID: 180-156535-6

Date Collected: 05/10/23 12:45

Matrix: Water

Date Received: 05/12/23 09:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0162	U	0.175	0.175	1.00	0.349	pCi/L	05/22/23 11:40	06/14/23 18:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.426	U	0.339	0.341	1.00	0.517	pCi/L	05/22/23 12:57	06/14/23 12:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:50*	*1*
Y Carrier	*84.0*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:50*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.443	U	0.382	0.383	5.00	0.517	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-4R-051023

Lab Sample ID: 180-156535-7

Date Collected: 05/10/23 16:50

Matrix: Water

Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.5**		1.0	0.71	mg/L			05/13/23 17:08	1
Fluoride	**0.31**		0.10	0.026	mg/L			05/13/23 17:08	1
Sulfate	**59**		1.0	0.76	mg/L			05/13/23 17:08	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**63**	**J**	100	57	ug/L		06/22/23 14:00	06/23/23 18:52	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:38	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:38	1
Barium	**0.045**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:38	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:38	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:38	1
Calcium	**110**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:38	1
Chromium	**0.0018**	**J**	0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:38	1
Cobalt	ND		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:38	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:38	1
Lithium	ND		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:38	1
Molybdenum	**0.0015**	**J B**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:38	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:38	1

Client Sample ID: CCR-AP-4R-051023
Lab Sample ID: 180-156535-7
Date Collected: 05/10/23 16:50
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:38	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**590**		10	10	mg/L			05/15/23 17:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.4**	**HF**	0.1	0.1	SU			05/20/23 10:55	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.214	U	0.213	0.214	1.00	0.334	pCi/L	05/22/23 11:40	06/14/23 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.5*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:45*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00694	U	0.257	0.257	1.00	0.489	pCi/L	05/22/23 12:57	06/14/23 12:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.5*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:50*	*1*
Y Carrier	*84.0*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:50*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.221	U	0.334	0.334	5.00	0.489	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-10-051023
Lab Sample ID: 180-156535-8
Date Collected: 05/10/23 15:25
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**96**		2.5	1.8	mg/L			05/13/23 19:55	2.5
Fluoride	**0.28**		0.25	0.065	mg/L			05/13/23 19:55	2.5
Sulfate	**1600**		2.5	1.9	mg/L			05/13/23 19:55	2.5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6900**		100	57	ug/L		06/22/23 14:00	06/23/23 18:56	1

Client: Haley & Aldrich, Inc.
Project/Site: CCR Groundwater Monitoring

Job ID: 180-156535-1

Client Sample ID: CCR-AP-10-051023

Date Collected: 05/10/23 15:25
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-8

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:41	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:41	1
Barium	**0.011**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:41	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:41	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:41	1
Calcium	**240**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:41	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:41	1
Cobalt	**0.00041**	**J**	0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:41	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:41	1
Lithium	**0.0020**	**J**	0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:41	1
Molybdenum	**0.0019**	**J B**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:41	1
Selenium	**0.018**		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:41	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:41	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2900**		20	20	mg/L			05/15/23 17:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.5**	**HF**	0.1	0.1	SU			05/20/23 09:40	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.199	U	0.175	0.176	1.00	0.251	pCi/L	05/22/23 11:40	06/14/23 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*163*	*X*	*30 - 110*	*05/22/23 11:40*	*06/14/23 18:45*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.611**		0.244	0.250	1.00	0.188	pCi/L	05/22/23 12:57	06/14/23 12:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*163*	*X*	*30 - 110*	*05/22/23 12:57*	*06/14/23 12:50*	*1*
Y Carrier	*84.0*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:50*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.810**		0.300	0.306	5.00	0.251	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-2R-051023

Date Collected: 05/10/23 09:35
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-9

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**480**		1.0	0.71	mg/L			05/13/23 20:13	1
Fluoride	**0.23**		0.10	0.026	mg/L			05/13/23 20:13	1
Sulfate	**2800**		5.0	3.8	mg/L			05/13/23 20:31	5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**12000**		500	290	ug/L		06/22/23 14:00	06/24/23 07:52	5

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:43	1
Arsenic	**0.0011**	**J**	0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:43	1
Barium	**0.048**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:43	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:43	1
Cadmium	**0.00038**	**J**	0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:43	1
Calcium	**380**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:43	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:43	1
Cobalt	**0.0025**		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:43	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:43	1
Lithium	**0.028**		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:43	1
Molybdenum	**1.2**	**B**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:43	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:43	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:43	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**5000**		40	40	mg/L			05/15/23 17:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.3**	**HF**	0.1	0.1	SU			05/20/23 10:38	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0580	U	0.278	0.278	1.00	0.524	pCi/L	05/22/23 11:40	06/14/23 20:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*05/22/23 11:40*	*06/14/23 20:37*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.337	U	0.467	0.468	1.00	0.784	pCi/L	05/22/23 12:57	06/14/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*

Client Sample ID: CCR-AP-2R-051023
Lab Sample ID: 180-156535-9
Date Collected: 05/10/23 09:35
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	84.0		30 - 110	05/22/23 12:57	06/14/23 12:53	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.395	U	0.543	0.544	5.00	0.784	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-9-051023
Lab Sample ID: 180-156535-10
Date Collected: 05/10/23 11:20
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		10	7.1	mg/L			05/13/23 21:08	10
Fluoride	0.35		0.10	0.026	mg/L			05/13/23 20:50	1
Sulfate	4900		10	7.6	mg/L			05/13/23 21:08	10

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	9500		500	290	ug/L		06/22/23 14:00	06/24/23 07:56	5

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:46	1
Arsenic	0.011		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:46	1
Barium	0.077		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:46	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:46	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:46	1
Calcium	430		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:46	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:46	1
Cobalt	0.00035	J	0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:46	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:46	1
Lithium	0.035		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:46	1
Molybdenum	0.014	B	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:46	1
Selenium	0.00089	J	0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:46	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:46	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	8900		67	67	mg/L			05/15/23 17:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.0	HF	0.1	0.1	SU			05/20/23 11:07	1

Client Sample ID: CCR-AP-9-051023
Lab Sample ID: 180-156535-10
Date Collected: 05/10/23 11:20
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.339	U	0.271	0.273	1.00	0.393	pCi/L	05/22/23 11:40	06/14/23 20:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*05/22/23 11:40*	*06/14/23 20:37*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.876**		0.513	0.520	1.00	0.742	pCi/L	05/22/23 12:57	06/14/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*
Y Carrier	*84.0*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.22**		0.580	0.587	5.00	0.742	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-7R-051123
Lab Sample ID: 180-156535-11
Date Collected: 05/11/23 07:50
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**220**		2.5	1.8	mg/L			05/13/23 21:27	2.5
Fluoride	**0.17**	**J**	0.25	0.065	mg/L			05/13/23 21:27	2.5
Sulfate	**1200**		2.5	1.9	mg/L			05/13/23 21:27	2.5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2100**		100	57	ug/L		06/22/23 14:00	06/23/23 19:10	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:49	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:49	1
Barium	**0.017**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:49	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:49	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:49	1
Calcium	**220**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:49	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:49	1
Cobalt	ND		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:49	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:49	1
Lithium	**0.013**		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:49	1
Molybdenum	ND		0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:49	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:49	1

Client Sample ID: CCR-AP-7R-051123
Lab Sample ID: 180-156535-11
Date Collected: 05/11/23 07:50
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:49	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2500**		20	20	mg/L			05/16/23 17:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**6.8**	**HF**	0.1	0.1	SU			05/20/23 10:00	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.127	U	0.225	0.225	1.00	0.396	pCi/L	05/22/23 11:40	06/14/23 20:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*30 - 110*	*05/22/23 11:40*	*06/14/23 20:37*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.750**		0.433	0.438	1.00	0.624	pCi/L	05/22/23 12:57	06/14/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*
Y Carrier	*83.4*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.877**		0.488	0.492	5.00	0.624	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-2I-050923
Lab Sample ID: 180-156535-12
Date Collected: 05/09/23 10:15
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**92**		1.0	0.71	mg/L			05/13/23 21:45	1
Fluoride	**0.91**		0.10	0.026	mg/L			05/13/23 21:45	1
Sulfate	**1.9**		1.0	0.76	mg/L			05/13/23 21:45	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2100**		100	57	ug/L		06/22/23 14:00	06/23/23 19:23	1

Client Sample ID: CCR-AP-2I-050923
Lab Sample ID: 180-156535-12
Date Collected: 05/09/23 10:15
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.0013**	**J**	0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:57	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:57	1
Barium	**0.084**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:57	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:57	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:57	1
Calcium	**9.5**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:57	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:57	1
Cobalt	**0.00024**	**J**	0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:57	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:57	1
Lithium	**0.021**		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:57	1
Molybdenum	ND		0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:57	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:57	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:57	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**690**		10	10	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**8.1**	**HF**	0.1	0.1	SU			05/20/23 11:23	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.321**		0.210	0.212	1.00	0.280	pCi/L	05/22/23 11:40	06/14/23 20:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*30 - 110*	*05/22/23 11:40*	*06/14/23 20:37*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.416	U	0.325	0.328	1.00	0.500	pCi/L	05/22/23 12:57	06/14/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*
Y Carrier	*85.4*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.737**		0.387	0.391	5.00	0.500	pCi/L		06/15/23 10:47	1

Client Sample ID: CCR-AP-1R-051023
Lab Sample ID: 180-156535-13
Date Collected: 05/10/23 13:20
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10**		1.0	0.71	mg/L			05/14/23 00:50	1
Fluoride	**0.50**		0.10	0.026	mg/L			05/14/23 00:50	1
Sulfate	**110**		1.0	0.76	mg/L			05/14/23 00:50	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1800**		100	57	ug/L		06/22/23 14:00	06/23/23 19:27	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 16:00	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 16:00	1
Barium	**0.044**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 16:00	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 16:00	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:00	1
Calcium	**27**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 16:00	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 16:00	1
Cobalt	ND		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 16:00	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 16:00	1
Lithium	ND		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 16:00	1
Molybdenum	**0.0039**	**J B**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 16:00	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 16:00	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:00	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**780**		10	10	mg/L			05/15/23 17:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.4**	**HF**	0.1	0.1	SU			05/20/23 10:35	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.288	U	0.224	0.226	1.00	0.330	pCi/L	05/22/23 11:40	06/14/23 20:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*30 - 110*	*05/22/23 11:40*	*06/14/23 20:37*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.162	U	0.285	0.285	1.00	0.492	pCi/L	05/22/23 12:57	06/14/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*

Client Sample ID: CCR-AP-1R-051023

Lab Sample ID: 180-156535-13
Matrix: Water
Date Collected: 05/10/23 13:20
Date Received: 05/12/23 09:45

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	83.4		30 - 110	05/22/23 12:57	06/14/23 12:53	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.450	U	0.362	0.364	5.00	0.492	pCi/L		06/15/23 10:47	1

Client Sample ID: FB-1-051123

Lab Sample ID: 180-156535-14
Matrix: Water
Date Collected: 05/11/23 11:50
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			05/13/23 22:04	1
Fluoride	**0.036**	**J**	0.10	0.026	mg/L			05/13/23 22:04	1
Sulfate	ND		1.0	0.76	mg/L			05/13/23 22:04	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		06/22/23 14:00	06/23/23 19:32	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 16:02	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 16:02	1
Barium	ND		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 16:02	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 16:02	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:02	1
Calcium	ND		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 16:02	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 16:02	1
Cobalt	ND		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 16:02	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 16:02	1
Lithium	ND		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 16:02	1
Molybdenum	ND		0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 16:02	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 16:02	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:02	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	ND		10	10	mg/L			05/16/23 17:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**5.9**	**HF**	0.1	0.1	SU			05/31/23 16:32	1

Client Sample ID: FB-1-051123

Date Collected: 05/11/23 11:50
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-14

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0350	U	0.216	0.216	1.00	0.432	pCi/L	05/22/23 11:40	06/14/23 20:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*05/22/23 11:40*	*06/14/23 20:37*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00938	U	0.299	0.299	1.00	0.560	pCi/L	05/22/23 12:57	06/14/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*
Y Carrier	*83.4*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:53*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0256	U	0.369	0.369	5.00	0.560	pCi/L		06/15/23 10:47	1

Client Sample ID: FB-2-051123

Date Collected: 05/11/23 12:20
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-15

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			05/13/23 22:22	1
Fluoride	**0.038**	**J**	0.10	0.026	mg/L			05/13/23 22:22	1
Sulfate	ND		1.0	0.76	mg/L			05/13/23 22:22	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		06/22/23 14:00	06/23/23 19:36	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 16:05	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 16:05	1
Barium	ND		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 16:05	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 16:05	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:05	1
Calcium	ND		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 16:05	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 16:05	1
Cobalt	ND		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 16:05	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 16:05	1
Lithium	ND		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 16:05	1
Molybdenum	ND		0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 16:05	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 16:05	1

Client Sample ID: FB-2-051123
Lab Sample ID: 180-156535-15
Date Collected: 05/11/23 12:20
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:05	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	ND		10	10	mg/L			05/16/23 17:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**5.6**	**HF**	0.1	0.1	SU			05/20/23 09:54	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0316	U	0.234	0.234	1.00	0.452	pCi/L	05/22/23 11:44	06/16/23 13:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*30 - 110*	*05/22/23 11:44*	*06/16/23 13:35*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00529	U	0.323	0.323	1.00	0.613	pCi/L	05/22/23 16:32	06/16/23 10:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:56*	*1*
Y Carrier	*83.4*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:56*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0263	U	0.399	0.399	5.00	0.613	pCi/L		06/16/23 16:50	1

Client Sample ID: MH-2-05092023
Lab Sample ID: 180-156535-16
Date Collected: 05/09/23 11:25
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**540**		1.0	0.71	mg/L			05/13/23 23:18	1
Fluoride	**0.32**		0.10	0.026	mg/L			05/13/23 23:18	1
Sulfate	**3400**		5.0	3.8	mg/L			05/13/23 23:36	5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**14000**		500	290	ug/L		06/22/23 14:00	06/24/23 08:01	5

Client Sample ID: MH-2-05092023

Date Collected: 05/09/23 11:25
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-16

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 16:08	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 16:08	1
Barium	**0.016**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 16:08	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 16:08	1
Cadmium	**0.0018**		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:08	1
Calcium	**440**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 16:08	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 16:08	1
Cobalt	**0.0051**		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 16:08	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 16:08	1
Lithium	**0.030**		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 16:08	1
Molybdenum	**0.90**	**B**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 16:08	1
Selenium	**0.0020**	**J**	0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 16:08	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:08	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**6000**		40	40	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.0**	**HF**	0.1	0.1	SU			05/17/23 13:01	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0646	U	0.220	0.220	1.00	0.411	pCi/L	05/22/23 11:44	06/16/23 13:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*30 - 110*	*05/22/23 11:44*	*06/16/23 13:36*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0659	U	0.388	0.388	1.00	0.695	pCi/L	05/22/23 16:32	06/16/23 10:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*
Y Carrier	*86.0*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.130	U	0.446	0.446	5.00	0.695	pCi/L		06/16/23 16:50	1

Client Sample ID: CCR-AP-8-05092023

Date Collected: 05/09/23 17:05
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-17

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		2.5	1.8	mg/L			05/13/23 23:54	2.5
Fluoride	**0.20**	**J**	0.25	0.065	mg/L			05/13/23 23:54	2.5
Sulfate	**1200**		2.5	1.9	mg/L			05/13/23 23:54	2.5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1200**		100	57	ug/L		06/22/23 14:00	06/23/23 19:45	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 16:10	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 16:10	1
Barium	**0.033**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 16:10	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 16:10	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:10	1
Calcium	**320**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 16:10	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 16:10	1
Cobalt	**0.0015**		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 16:10	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 16:10	1
Lithium	**0.015**		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 16:10	1
Molybdenum	**0.0024**	**J B**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 16:10	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 16:10	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:10	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2500**		20	20	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.0**	**HF**	0.1	0.1	SU			05/17/23 12:58	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0869	U	0.219	0.219	1.00	0.401	pCi/L	05/22/23 11:44	06/16/23 13:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.0*		*30 - 110*	*05/22/23 11:44*	*06/16/23 13:36*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.324	U	0.341	0.342	1.00	0.552	pCi/L	05/22/23 16:32	06/16/23 10:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.0*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*

Client Sample ID: CCR-AP-8-05092023
Lab Sample ID: 180-156535-17
Date Collected: 05/09/23 17:05
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	89.6		30 - 110	05/22/23 16:32	06/16/23 10:57	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.411	U	0.405	0.406	5.00	0.552	pCi/L		06/16/23 16:50	1

Client Sample ID: CCR-AP-6-051023
Lab Sample ID: 180-156535-18
Date Collected: 05/10/23 09:20
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	230		2.5	1.8	mg/L			05/14/23 01:45	2.5
Fluoride	0.18	J	0.25	0.065	mg/L			05/14/23 01:45	2.5
Sulfate	1400		2.5	1.9	mg/L			05/14/23 01:45	2.5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	7900		100	57	ug/L		06/22/23 14:00	06/23/23 19:49	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 16:13	1
Arsenic	0.0024	J	0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 16:13	1
Barium	0.029		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 16:13	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 16:13	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:13	1
Calcium	230		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 16:13	1
Chromium	0.0049	J	0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 16:13	1
Cobalt	0.0036		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 16:13	1
Lead	0.0018		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 16:13	1
Lithium	0.025		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 16:13	1
Molybdenum	0.0041	J B	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 16:13	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 16:13	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:13	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2900		20	20	mg/L			05/15/23 17:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.1	HF	0.1	0.1	SU			05/17/23 12:56	1

Client Sample ID: CCR-AP-6-051023
Lab Sample ID: 180-156535-18
Date Collected: 05/10/23 09:20
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.191	U	0.330	0.331	1.00	0.574	pCi/L	05/22/23 11:44	06/16/23 13:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*05/22/23 11:44*	*06/16/23 13:36*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.160	U	0.510	0.510	1.00	0.902	pCi/L	05/22/23 16:32	06/16/23 10:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*
Y Carrier	*82.0*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.351	U	0.607	0.608	5.00	0.902	pCi/L		06/16/23 16:50	1

Client Sample ID: FD-PZ-1-05092023
Lab Sample ID: 180-156535-19
Date Collected: 05/09/23 10:15
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**450**		1.0	0.71	mg/L			05/14/23 03:18	1
Fluoride	**0.30**		0.10	0.026	mg/L			05/14/23 03:18	1
Sulfate	**2900**		5.0	3.8	mg/L			05/14/23 03:36	5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**11000**		500	290	ug/L		06/22/23 14:00	06/24/23 08:05	5

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 16:16	1
Arsenic	**0.0023**	**J**	0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 16:16	1
Barium	**0.040**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 16:16	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 16:16	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:16	1
Calcium	**420**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 16:16	1
Chromium	**0.0021**	**J**	0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 16:16	1
Cobalt	**0.0021**		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 16:16	1
Lead	**0.00077**	**J**	0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 16:16	1
Lithium	**0.028**		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 16:16	1
Molybdenum	**0.57**	**B**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 16:16	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 16:16	1

Client Sample ID: FD-PZ-1-05092023
Lab Sample ID: 180-156535-19
Date Collected: 05/09/23 10:15
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:16	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**5200**		40	40	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.6**	**HF**	0.1	0.1	SU			05/17/23 13:10	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.305	U	0.256	0.257	1.00	0.373	pCi/L	05/22/23 11:44	06/16/23 13:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*30 - 110*	*05/22/23 11:44*	*06/16/23 13:36*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.00**		0.484	0.492	1.00	0.652	pCi/L	05/22/23 16:32	06/16/23 10:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*
Y Carrier	*80.1*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.31**		0.548	0.555	5.00	0.652	pCi/L		06/16/23 16:50	1

Client Sample ID: MH-1-05092023
Lab Sample ID: 180-156535-20
Date Collected: 05/09/23 12:50
Matrix: Water
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**570**		1.0	0.71	mg/L			05/14/23 02:04	1
Fluoride	**0.49**		0.10	0.026	mg/L			05/14/23 02:04	1
Sulfate	**3500**		5.0	3.8	mg/L			05/14/23 02:59	5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**15000**		500	290	ug/L		06/22/23 14:00	06/24/23 08:10	5

Client Sample ID: MH-1-05092023

Date Collected: 05/09/23 12:50
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-20

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 16:18	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 16:18	1
Barium	**0.024**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 16:18	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 16:18	1
Cadmium	**0.00041**	**J**	0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:18	1
Calcium	**430**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 16:18	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 16:18	1
Cobalt	**0.0023**		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 16:18	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 16:18	1
Lithium	**0.036**		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 16:18	1
Molybdenum	**1.3**	**B**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 16:18	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 16:18	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 16:18	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**6100**		40	40	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.4**	**HF**	0.1	0.1	SU			05/17/23 13:07	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.157	U	0.203	0.203	1.00	0.337	pCi/L	05/22/23 11:44	06/16/23 13:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.5*		*30 - 110*	*05/22/23 11:44*	*06/16/23 13:36*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.188	U	0.301	0.301	1.00	0.514	pCi/L	05/22/23 16:32	06/16/23 10:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.5*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*
Y Carrier	*85.4*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.345	U	0.363	0.363	5.00	0.514	pCi/L		06/16/23 16:50	1

Client Sample ID: CCR-BK-1R-051123

Date Collected: 05/11/23 08:20
Date Received: 05/12/23 09:45

Lab Sample ID: 180-156535-21

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.0**		1.0	0.71	mg/L			05/14/23 04:32	1
Fluoride	**0.18**		0.10	0.026	mg/L			05/14/23 04:32	1
Sulfate	**39**		1.0	0.76	mg/L			05/14/23 04:32	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		06/22/23 14:00	06/23/23 11:47	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 14:56	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 14:56	1
Barium	**0.074**		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 14:56	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 14:56	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 14:56	1
Calcium	**51**		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 14:56	1
Chromium	**0.0017**	**J**	0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 14:56	1
Cobalt	**0.00026**	**J**	0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 14:56	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 14:56	1
Lithium	**0.0084**		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 14:56	1
Molybdenum	**0.0014**	**J**	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 14:56	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 14:56	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 14:56	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 12:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**280**		10	10	mg/L			05/16/23 17:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.2**	**HF**	0.1	0.1	SU			05/17/23 12:36	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.482**		0.330	0.333	1.00	0.454	pCi/L	05/22/23 11:44	06/16/23 13:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*05/22/23 11:44*	*06/16/23 13:36*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.909	U	0.627	0.633	1.00	0.965	pCi/L	05/22/23 16:32	06/16/23 10:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:57*	*1*

Client Sample ID: CCR-BK-1R-051123

Lab Sample ID: 180-156535-21
Matrix: Water
Date Collected: 05/11/23 08:20
Date Received: 05/12/23 09:45

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	84.6		30 - 110	05/22/23 16:32	06/16/23 10:57	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.39		0.709	0.715	5.00	0.965	pCi/L		06/16/23 16:50	1

Client Sample ID: DUP-1-050923

Lab Sample ID: 180-156535-22
Matrix: Water
Date Collected: 05/09/23 17:20
Date Received: 05/12/23 09:45

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	840		1.0	0.71	mg/L			05/14/23 03:55	1
Fluoride	0.95		0.10	0.026	mg/L			05/14/23 03:55	1
Sulfate	4900		10	7.6	mg/L			05/14/23 04:13	10

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	14000		1000	570	ug/L		06/22/23 14:00	06/23/23 22:20	10

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 14:59	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 14:59	1
Barium	0.019		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 14:59	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 14:59	1
Cadmium	0.00029	J	0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 14:59	1
Calcium	450		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 14:59	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 14:59	1
Cobalt	0.00046	J	0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 14:59	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 14:59	1
Lithium	0.075		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 14:59	1
Molybdenum	0.71		0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 14:59	1
Selenium	0.0029	J	0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 14:59	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 14:59	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 12:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	8200		67	67	mg/L			05/15/23 16:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.4	HF	0.1	0.1	SU			05/17/23 12:38	1

Client Sample ID: DUP-1-050923
Lab Sample ID: 180-156535-22

Date Collected: 05/09/23 17:20
Matrix: Water

Date Received: 05/12/23 09:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0444	U	0.218	0.218	1.00	0.416	pCi/L	05/22/23 11:44	06/16/23 13:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*30 - 110*	*05/22/23 11:44*	*06/16/23 13:36*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.320	U	0.335	0.336	1.00	0.543	pCi/L	05/22/23 16:32	06/16/23 10:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:54*	*1*
Y Carrier	*85.7*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:54*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.364	U	0.400	0.401	5.00	0.543	pCi/L		06/16/23 16:50	1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-435094/45
Matrix: Water
Analysis Batch: 435094

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			05/14/23 00:13	1
Fluoride	ND		0.10	0.026	mg/L			05/14/23 00:13	1
Sulfate	ND		1.0	0.76	mg/L			05/14/23 00:13	1

Lab Sample ID: MB 180-435094/6
Matrix: Water
Analysis Batch: 435094

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			05/13/23 11:18	1
Fluoride	ND		0.10	0.026	mg/L			05/13/23 11:18	1
Sulfate	ND		1.0	0.76	mg/L			05/13/23 11:18	1

Lab Sample ID: LCS 180-435094/46
Matrix: Water
Analysis Batch: 435094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.9		mg/L		102	80 - 120
Fluoride	2.50	2.36		mg/L		95	80 - 120
Sulfate	50.0	49.9		mg/L		100	80 - 120

Lab Sample ID: LCS 180-435094/7
Matrix: Water
Analysis Batch: 435094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.3		mg/L		101	80 - 120
Fluoride	2.50	2.35		mg/L		94	80 - 120
Sulfate	50.0	49.9		mg/L		100	80 - 120

Lab Sample ID: 180-156535-1 MS
Matrix: Water
Analysis Batch: 435094

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	500		50.0	532	4	mg/L		62	80 - 120
Fluoride	0.32		2.50	2.57		mg/L		90	80 - 120

Lab Sample ID: 180-156535-1 MS
Matrix: Water
Analysis Batch: 435094

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	3500		250	3680	4	mg/L		69	80 - 120

Method: EPA 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-156535-1 MSD
Matrix: Water
Analysis Batch: 435094

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	500		50.0	532	4	mg/L		63	80 - 120	0	15
Fluoride	0.32		2.50	2.66		mg/L		94	80 - 120	4	15

Lab Sample ID: 180-156535-1 MSD
Matrix: Water
Analysis Batch: 435094

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	3500		250	3680	4	mg/L		68	80 - 120	0	15

Lab Sample ID: 180-156535-13 MS
Matrix: Water
Analysis Batch: 435094

Client Sample ID: CCR-AP-1R-051023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10		50.0	60.1		mg/L		100	80 - 120
Fluoride	0.50		2.50	2.89		mg/L		95	80 - 120
Sulfate	110		50.0	155		mg/L		88	80 - 120

Lab Sample ID: 180-156535-13 MSD
Matrix: Water
Analysis Batch: 435094

Client Sample ID: CCR-AP-1R-051023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10		50.0	60.2		mg/L		100	80 - 120	0	15
Fluoride	0.50		2.50	2.97		mg/L		99	80 - 120	3	15
Sulfate	110		50.0	155		mg/L		89	80 - 120	0	15

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-578145/1-A
Matrix: Water
Analysis Batch: 578400

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 578145

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		06/22/23 14:00	06/23/23 17:51	1

Lab Sample ID: LCS 240-578145/2-A
Matrix: Water
Analysis Batch: 578400

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 578145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1030		ug/L		103	80 - 120

Lab Sample ID: 180-156535-1 MS
Matrix: Water
Analysis Batch: 578400

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total Recoverable
Prep Batch: 578145

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	15000		1000	16100	4	ug/L		101	75 - 125

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 180-156535-1 MSD
Matrix: Water
Analysis Batch: 578400

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total Recoverable
Prep Batch: 578145

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	15000		1000	15700	4	ug/L		65	75 - 125	2	20

Lab Sample ID: MB 240-578155/1-A
Matrix: Water
Analysis Batch: 578400

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 578155

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		06/22/23 14:00	06/23/23 10:34	1

Lab Sample ID: LCS 240-578155/2-A
Matrix: Water
Analysis Batch: 578400

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 578155

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1100		ug/L		110	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-578145/1-A
Matrix: Water
Analysis Batch: 578501

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 578145

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 15:01	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 15:01	1
Barium	ND		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 15:01	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 15:01	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:01	1
Calcium	ND		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 15:01	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 15:01	1
Cobalt	ND		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 15:01	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 15:01	1
Lithium	ND		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 15:01	1
Molybdenum	0.00140	J	0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 15:01	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 15:01	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 15:01	1

Lab Sample ID: LCS 240-578145/3-A
Matrix: Water
Analysis Batch: 578501

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 578145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.106		mg/L		106	80 - 120
Arsenic	1.00	0.950		mg/L		95	80 - 120
Barium	1.00	0.934		mg/L		93	80 - 120
Beryllium	0.500	0.493		mg/L		99	80 - 120
Cadmium	0.500	0.470		mg/L		94	80 - 120
Calcium	25.0	24.3		mg/L		97	80 - 120
Chromium	0.500	0.489		mg/L		98	80 - 120
Cobalt	0.500	0.465		mg/L		93	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-578145/3-A
Matrix: Water
Analysis Batch: 578501

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 578145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.500	0.484		mg/L		97	80 - 120
Lithium	0.500	0.475		mg/L		95	80 - 120
Molybdenum	0.500	0.486		mg/L		97	80 - 120
Selenium	1.00	0.947		mg/L		95	80 - 120
Thallium	1.00	0.916		mg/L		92	80 - 120

Lab Sample ID: 180-156535-1 MS
Matrix: Water
Analysis Batch: 578501

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total Recoverable
Prep Batch: 578145

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.00094	J	0.100	0.108		mg/L		107	80 - 120
Arsenic	ND		1.00	1.01		mg/L		101	80 - 120
Barium	0.021		1.00	0.967		mg/L		95	80 - 120
Beryllium	ND		0.500	0.507		mg/L		101	80 - 120
Cadmium	0.00022	J	0.500	0.462		mg/L		92	80 - 120
Calcium	540		25.0	499	4	mg/L		-163	80 - 120
Chromium	ND		0.500	0.474		mg/L		95	80 - 120
Cobalt	0.00021	J	0.500	0.485		mg/L		97	80 - 120
Lead	ND		0.500	0.491		mg/L		98	80 - 120
Lithium	0.017		0.500	0.502		mg/L		97	80 - 120
Molybdenum	0.14	B	0.500	0.625		mg/L		97	80 - 120
Selenium	0.00092	J	1.00	0.987		mg/L		99	80 - 120
Thallium	0.00031	J	1.00	0.843		mg/L		84	80 - 120

Lab Sample ID: 180-156535-1 MSD
Matrix: Water
Analysis Batch: 578501

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total Recoverable
Prep Batch: 578145

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.00094	J	0.100	0.107		mg/L		106	80 - 120	0	20
Arsenic	ND		1.00	0.996		mg/L		100	80 - 120	1	20
Barium	0.021		1.00	0.964		mg/L		94	80 - 120	0	20
Beryllium	ND		0.500	0.497		mg/L		99	80 - 120	2	20
Cadmium	0.00022	J	0.500	0.458		mg/L		92	80 - 120	1	20
Calcium	540		25.0	493	4	mg/L		-190	80 - 120	1	20
Chromium	ND		0.500	0.467		mg/L		93	80 - 120	2	20
Cobalt	0.00021	J	0.500	0.484		mg/L		97	80 - 120	0	20
Lead	ND		0.500	0.488		mg/L		98	80 - 120	1	20
Lithium	0.017		0.500	0.495		mg/L		96	80 - 120	1	20
Molybdenum	0.14	B	0.500	0.624		mg/L		97	80 - 120	0	20
Selenium	0.00092	J	1.00	0.972		mg/L		97	80 - 120	2	20
Thallium	0.00031	J	1.00	0.844		mg/L		84	80 - 120	0	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 240-578155/1-A
Matrix: Water
Analysis Batch: 578501

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 578155

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		06/22/23 14:00	06/23/23 13:39	1
Arsenic	ND		0.0050	0.00075	mg/L		06/22/23 14:00	06/23/23 13:39	1
Barium	ND		0.0050	0.0022	mg/L		06/22/23 14:00	06/23/23 13:39	1
Beryllium	ND		0.0010	0.00062	mg/L		06/22/23 14:00	06/23/23 13:39	1
Cadmium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 13:39	1
Calcium	ND		1.0	0.25	mg/L		06/22/23 14:00	06/23/23 13:39	1
Chromium	ND		0.0050	0.0012	mg/L		06/22/23 14:00	06/23/23 13:39	1
Cobalt	ND		0.0010	0.00019	mg/L		06/22/23 14:00	06/23/23 13:39	1
Lead	ND		0.0010	0.00045	mg/L		06/22/23 14:00	06/23/23 13:39	1
Lithium	ND		0.0080	0.0017	mg/L		06/22/23 14:00	06/23/23 13:39	1
Molybdenum	ND		0.0050	0.0011	mg/L		06/22/23 14:00	06/23/23 13:39	1
Selenium	ND		0.0050	0.00089	mg/L		06/22/23 14:00	06/23/23 13:39	1
Thallium	ND		0.0010	0.00020	mg/L		06/22/23 14:00	06/23/23 13:39	1

Lab Sample ID: LCS 240-578155/3-A
Matrix: Water
Analysis Batch: 578501

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 578155

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.106		mg/L		106	80 - 120
Arsenic	1.00	0.944		mg/L		94	80 - 120
Barium	1.00	0.936		mg/L		94	80 - 120
Beryllium	0.500	0.480		mg/L		96	80 - 120
Cadmium	0.500	0.479		mg/L		96	80 - 120
Calcium	25.0	24.1		mg/L		97	80 - 120
Chromium	0.500	0.474		mg/L		95	80 - 120
Cobalt	0.500	0.473		mg/L		95	80 - 120
Lead	0.500	0.488		mg/L		98	80 - 120
Lithium	0.500	0.470		mg/L		94	80 - 120
Molybdenum	0.500	0.472		mg/L		94	80 - 120
Selenium	1.00	0.943		mg/L		94	80 - 120
Thallium	1.00	0.920		mg/L		92	80 - 120

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-436973/1-A
Matrix: Water
Analysis Batch: 437135

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436973

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 11:16	1

Lab Sample ID: LCS 180-436973/2-A
Matrix: Water
Analysis Batch: 437135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436973

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00250	0.00259		mg/L		104	80 - 120

Method: EPA 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 180-156535-1 MS
Matrix: Water
Analysis Batch: 437135

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total/NA
Prep Batch: 436973

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00100	0.000970		mg/L		97	75 - 125

Lab Sample ID: 180-156535-1 MSD
Matrix: Water
Analysis Batch: 437135

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total/NA
Prep Batch: 436973

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00100	0.000921		mg/L		92	75 - 125	5	20

Lab Sample ID: MB 180-436976/1-A
Matrix: Water
Analysis Batch: 437135

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/05/23 10:15	06/06/23 12:00	1

Lab Sample ID: LCS 180-436976/2-A
Matrix: Water
Analysis Batch: 437135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00250	0.00250		mg/L		100	80 - 120

Lab Sample ID: 180-156535-21 MS
Matrix: Water
Analysis Batch: 437135

Client Sample ID: CCR-BK-1R-051123
Prep Type: Total/NA
Prep Batch: 436976

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00100	0.000994		mg/L		99	75 - 125

Lab Sample ID: 180-156535-21 MSD
Matrix: Water
Analysis Batch: 437135

Client Sample ID: CCR-BK-1R-051123
Prep Type: Total/NA
Prep Batch: 436976

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00100	0.000983		mg/L		98	75 - 125	1	20

Lab Sample ID: MB 180-437052/1-A
Matrix: Water
Analysis Batch: 437135

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 437052

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		06/06/23 07:00	06/06/23 11:51	1

Lab Sample ID: LCS 180-437052/2-A
Matrix: Water
Analysis Batch: 437135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 437052

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00250	0.00247		mg/L		99	80 - 120

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: 180-156535-4 MS
Matrix: Water
Analysis Batch: 437135

Client Sample ID: FD-P2-2-051023
Prep Type: Total/NA
Prep Batch: 437052

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00100	0.000991		mg/L		99	75 - 125

Lab Sample ID: 180-156535-4 MSD
Matrix: Water
Analysis Batch: 437135

Client Sample ID: FD-P2-2-051023
Prep Type: Total/NA
Prep Batch: 437052

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00100	0.000989		mg/L		99	75 - 125	0	20

Method: EPA 9040C - pH

Lab Sample ID: LCS 180-435462/1
Matrix: Water
Analysis Batch: 435462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: LCS 180-435462/24
Matrix: Water
Analysis Batch: 435462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: LCS 180-435740/1
Matrix: Water
Analysis Batch: 435740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.1		SU		101	99 - 101

Lab Sample ID: LCS 180-435740/24
Matrix: Water
Analysis Batch: 435740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.1		SU		101	99 - 101

Lab Sample ID: 180-156535-4 DU
Matrix: Water
Analysis Batch: 435740

Client Sample ID: FD-P2-2-051023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.4	HF	7.4		SU		0.1	2

Method: EPA 9040C - pH (Continued)

Lab Sample ID: 180-156535-8 DU
Matrix: Water
Analysis Batch: 435740

Client Sample ID: CCR-AP-10-051023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.5	HF	7.5		SU		0.1	2

Lab Sample ID: LCS 180-436668/1
Matrix: Water
Analysis Batch: 436668

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.1		SU		101	99 - 101

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-435221/1
Matrix: Water
Analysis Batch: 435221

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			05/15/23 16:55	1

Lab Sample ID: LCS 180-435221/2
Matrix: Water
Analysis Batch: 435221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	586		mg/L		101	85 - 115

Lab Sample ID: MB 180-435225/1
Matrix: Water
Analysis Batch: 435225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			05/15/23 17:46	1

Lab Sample ID: LCS 180-435225/2
Matrix: Water
Analysis Batch: 435225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	564		mg/L		97	85 - 115

Lab Sample ID: MB 180-435349/1
Matrix: Water
Analysis Batch: 435349

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			05/16/23 17:00	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 180-435349/2
Matrix: Water
Analysis Batch: 435349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			580	570		mg/L		98	85 - 115		

Lab Sample ID: 180-156535-11 DU
Matrix: Water
Analysis Batch: 435349

Client Sample ID: CCR-AP-7R-051123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2500			2480		mg/L				0.6	10

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-612568/1-A
Matrix: Water
Analysis Batch: 616061

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612568

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.1510	U	0.161	0.161	1.00	0.389	pCi/L	05/22/23 11:40	06/14/23 18:40	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:40*	*1*

Lab Sample ID: LCS 160-612568/2-A
Matrix: Water
Analysis Batch: 616061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612568

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.01		1.31	1.00	0.303	pCi/L	88	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.5*		*30 - 110*

Lab Sample ID: 180-156535-1 DU
Matrix: Water
Analysis Batch: 616059

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total/NA
Prep Batch: 612568

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	-0.0606	U		-0.00834 3	U	0.181	1.00	0.363	pCi/L			0.15	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*96.3*		*30 - 110*

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-612569/1-A
Matrix: Water
Analysis Batch: 616521

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612569

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06990	U	0.201	0.201	1.00	0.373	pCi/L	05/22/23 11:44	06/16/23 13:20	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.5*		*30 - 110*	*05/22/23 11:44*	*06/16/23 13:20*	*1*

Lab Sample ID: LCS 160-612569/2-A
Matrix: Water
Analysis Batch: 616521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612569

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	9.474		1.35	1.00	0.332	pCi/L	84	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.3*		*30 - 110*

Lab Sample ID: LCSD 160-612569/3-A
Matrix: Water
Analysis Batch: 616521

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 612569

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226			11.3	9.072		1.25	1.00	0.315	pCi/L	80	75 - 125	0.15	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.3*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-612632/1-A
Matrix: Water
Analysis Batch: 616060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612632

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2359	U	0.259	0.260	1.00	0.553	pCi/L	05/22/23 12:57	06/14/23 12:45	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:45*	*1*
Y Carrier	*84.6*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:45*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-612632/2-A
Matrix: Water
Analysis Batch: 616060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612632

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.12	9.442		1.31	1.00	0.582	pCi/L	116	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.5*		*30 - 110*
Y Carrier	*84.6*		*30 - 110*

Lab Sample ID: 180-156535-1 DU
Matrix: Water
Analysis Batch: 616060

Client Sample ID: CCR-AP-5R-050923
Prep Type: Total/NA
Prep Batch: 612632

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.375	U		1.168		0.438	1.00	0.524	pCi/L			1.03	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*96.3*		*30 - 110*
Y Carrier	*84.3*		*30 - 110*

Lab Sample ID: MB 160-612683/1-A
Matrix: Water
Analysis Batch: 616372

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612683

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2083	U	0.330	0.331	1.00	0.563	pCi/L	05/22/23 16:32	06/16/23 10:56	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.5*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:56*	*1*
Y Carrier	*81.2*		*30 - 110*	*05/22/23 16:32*	*06/16/23 10:56*	*1*

Lab Sample ID: LCS 160-612683/2-A
Matrix: Water
Analysis Batch: 616372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612683

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.11	10.58		1.44	1.00	0.597	pCi/L	130	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.3*		*30 - 110*
Y Carrier	*81.7*		*30 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-612683/3-A
Matrix: Water
Analysis Batch: 616372

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 612683

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228			8.11	8.643		1.21	1.00	0.496	pCi/L	107	75 - 125	0.73	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.3*		*30 - 110*
Y Carrier	*89.0*		*30 - 110*

HPLC/IC

Analysis Batch: 435094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total/NA	Water	EPA 9056A	
180-156535-1	CCR-AP-5R-050923	Total/NA	Water	EPA 9056A	
180-156535-2	CCR-AP-3I-050923	Total/NA	Water	EPA 9056A	
180-156535-3	CCR-AP-3R-050923	Total/NA	Water	EPA 9056A	
180-156535-3	CCR-AP-3R-050923	Total/NA	Water	EPA 9056A	
180-156535-4	FD-P2-2-051023	Total/NA	Water	EPA 9056A	
180-156535-5	CCR-BK-2-051023	Total/NA	Water	EPA 9056A	
180-156535-6	CCR-AP-11-051023	Total/NA	Water	EPA 9056A	
180-156535-7	CCR-AP-4R-051023	Total/NA	Water	EPA 9056A	
180-156535-8	CCR-AP-10-051023	Total/NA	Water	EPA 9056A	
180-156535-9	CCR-AP-2R-051023	Total/NA	Water	EPA 9056A	
180-156535-9	CCR-AP-2R-051023	Total/NA	Water	EPA 9056A	
180-156535-10	CCR-AP-9-051023	Total/NA	Water	EPA 9056A	
180-156535-10	CCR-AP-9-051023	Total/NA	Water	EPA 9056A	
180-156535-11	CCR-AP-7R-051123	Total/NA	Water	EPA 9056A	
180-156535-12	CCR-AP-2I-050923	Total/NA	Water	EPA 9056A	
180-156535-13	CCR-AP-1R-051023	Total/NA	Water	EPA 9056A	
180-156535-14	FB-1-051123	Total/NA	Water	EPA 9056A	
180-156535-15	FB-2-051123	Total/NA	Water	EPA 9056A	
180-156535-16	MH-2-05092023	Total/NA	Water	EPA 9056A	
180-156535-16	MH-2-05092023	Total/NA	Water	EPA 9056A	
180-156535-17	CCR-AP-8-05092023	Total/NA	Water	EPA 9056A	
180-156535-18	CCR-AP-6-051023	Total/NA	Water	EPA 9056A	
180-156535-19	FD-PZ-1-05092023	Total/NA	Water	EPA 9056A	
180-156535-19	FD-PZ-1-05092023	Total/NA	Water	EPA 9056A	
180-156535-20	MH-1-05092023	Total/NA	Water	EPA 9056A	
180-156535-20	MH-1-05092023	Total/NA	Water	EPA 9056A	
180-156535-21	CCR-BK-1R-051123	Total/NA	Water	EPA 9056A	
180-156535-22	DUP-1-050923	Total/NA	Water	EPA 9056A	
180-156535-22	DUP-1-050923	Total/NA	Water	EPA 9056A	
MB 180-435094/45	Method Blank	Total/NA	Water	EPA 9056A	
MB 180-435094/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-435094/46	Lab Control Sample	Total/NA	Water	EPA 9056A	
LCS 180-435094/7	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-156535-1 MS	CCR-AP-5R-050923	Total/NA	Water	EPA 9056A	
180-156535-1 MS	CCR-AP-5R-050923	Total/NA	Water	EPA 9056A	
180-156535-1 MSD	CCR-AP-5R-050923	Total/NA	Water	EPA 9056A	
180-156535-1 MSD	CCR-AP-5R-050923	Total/NA	Water	EPA 9056A	
180-156535-13 MS	CCR-AP-1R-051023	Total/NA	Water	EPA 9056A	
180-156535-13 MSD	CCR-AP-1R-051023	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 436973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total/NA	Water	7470A	
180-156535-2	CCR-AP-3I-050923	Total/NA	Water	7470A	
180-156535-3	CCR-AP-3R-050923	Total/NA	Water	7470A	
180-156535-5	CCR-BK-2-051023	Total/NA	Water	7470A	
180-156535-6	CCR-AP-11-051023	Total/NA	Water	7470A	
180-156535-7	CCR-AP-4R-051023	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 436973 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-8	CCR-AP-10-051023	Total/NA	Water	7470A	
180-156535-9	CCR-AP-2R-051023	Total/NA	Water	7470A	
180-156535-10	CCR-AP-9-051023	Total/NA	Water	7470A	
180-156535-11	CCR-AP-7R-051123	Total/NA	Water	7470A	
180-156535-12	CCR-AP-2I-050923	Total/NA	Water	7470A	
180-156535-13	CCR-AP-1R-051023	Total/NA	Water	7470A	
180-156535-14	FB-1-051123	Total/NA	Water	7470A	
180-156535-15	FB-2-051123	Total/NA	Water	7470A	
180-156535-16	MH-2-05092023	Total/NA	Water	7470A	
180-156535-17	CCR-AP-8-05092023	Total/NA	Water	7470A	
180-156535-18	CCR-AP-6-051023	Total/NA	Water	7470A	
180-156535-19	FD-PZ-1-05092023	Total/NA	Water	7470A	
180-156535-20	MH-1-05092023	Total/NA	Water	7470A	
MB 180-436973/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-436973/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-156535-1 MS	CCR-AP-5R-050923	Total/NA	Water	7470A	
180-156535-1 MSD	CCR-AP-5R-050923	Total/NA	Water	7470A	

Prep Batch: 436976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-21	CCR-BK-1R-051123	Total/NA	Water	7470A	
180-156535-22	DUP-1-050923	Total/NA	Water	7470A	
MB 180-436976/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-436976/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-156535-21 MS	CCR-BK-1R-051123	Total/NA	Water	7470A	
180-156535-21 MSD	CCR-BK-1R-051123	Total/NA	Water	7470A	

Prep Batch: 437052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-4	FD-P2-2-051023	Total/NA	Water	7470A	
MB 180-437052/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-437052/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-156535-4 MS	FD-P2-2-051023	Total/NA	Water	7470A	
180-156535-4 MSD	FD-P2-2-051023	Total/NA	Water	7470A	

Analysis Batch: 437135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total/NA	Water	EPA 7470A	436973
180-156535-2	CCR-AP-3I-050923	Total/NA	Water	EPA 7470A	436973
180-156535-3	CCR-AP-3R-050923	Total/NA	Water	EPA 7470A	436973
180-156535-4	FD-P2-2-051023	Total/NA	Water	EPA 7470A	437052
180-156535-5	CCR-BK-2-051023	Total/NA	Water	EPA 7470A	436973
180-156535-6	CCR-AP-11-051023	Total/NA	Water	EPA 7470A	436973
180-156535-7	CCR-AP-4R-051023	Total/NA	Water	EPA 7470A	436973
180-156535-8	CCR-AP-10-051023	Total/NA	Water	EPA 7470A	436973
180-156535-9	CCR-AP-2R-051023	Total/NA	Water	EPA 7470A	436973
180-156535-10	CCR-AP-9-051023	Total/NA	Water	EPA 7470A	436973
180-156535-11	CCR-AP-7R-051123	Total/NA	Water	EPA 7470A	436973
180-156535-12	CCR-AP-2I-050923	Total/NA	Water	EPA 7470A	436973
180-156535-13	CCR-AP-1R-051023	Total/NA	Water	EPA 7470A	436973
180-156535-14	FB-1-051123	Total/NA	Water	EPA 7470A	436973

Metals (Continued)

Analysis Batch: 437135 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-15	FB-2-051123	Total/NA	Water	EPA 7470A	436973
180-156535-16	MH-2-05092023	Total/NA	Water	EPA 7470A	436973
180-156535-17	CCR-AP-8-05092023	Total/NA	Water	EPA 7470A	436973
180-156535-18	CCR-AP-6-051023	Total/NA	Water	EPA 7470A	436973
180-156535-19	FD-PZ-1-05092023	Total/NA	Water	EPA 7470A	436973
180-156535-20	MH-1-05092023	Total/NA	Water	EPA 7470A	436973
180-156535-21	CCR-BK-1R-051123	Total/NA	Water	EPA 7470A	436976
180-156535-22	DUP-1-050923	Total/NA	Water	EPA 7470A	436976
MB 180-436973/1-A	Method Blank	Total/NA	Water	EPA 7470A	436973
MB 180-436976/1-A	Method Blank	Total/NA	Water	EPA 7470A	436976
MB 180-437052/1-A	Method Blank	Total/NA	Water	EPA 7470A	437052
LCS 180-436973/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	436973
LCS 180-436976/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	436976
LCS 180-437052/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	437052
180-156535-1 MS	CCR-AP-5R-050923	Total/NA	Water	EPA 7470A	436973
180-156535-1 MSD	CCR-AP-5R-050923	Total/NA	Water	EPA 7470A	436973
180-156535-4 MS	FD-P2-2-051023	Total/NA	Water	EPA 7470A	437052
180-156535-4 MSD	FD-P2-2-051023	Total/NA	Water	EPA 7470A	437052
180-156535-21 MS	CCR-BK-1R-051123	Total/NA	Water	EPA 7470A	436976
180-156535-21 MSD	CCR-BK-1R-051123	Total/NA	Water	EPA 7470A	436976

Prep Batch: 578145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total Recoverable	Water	3005A	
180-156535-2	CCR-AP-3I-050923	Total Recoverable	Water	3005A	
180-156535-3	CCR-AP-3R-050923	Total Recoverable	Water	3005A	
180-156535-4	FD-P2-2-051023	Total Recoverable	Water	3005A	
180-156535-5	CCR-BK-2-051023	Total Recoverable	Water	3005A	
180-156535-6	CCR-AP-11-051023	Total Recoverable	Water	3005A	
180-156535-7	CCR-AP-4R-051023	Total Recoverable	Water	3005A	
180-156535-8	CCR-AP-10-051023	Total Recoverable	Water	3005A	
180-156535-9	CCR-AP-2R-051023	Total Recoverable	Water	3005A	
180-156535-10	CCR-AP-9-051023	Total Recoverable	Water	3005A	
180-156535-11	CCR-AP-7R-051123	Total Recoverable	Water	3005A	
180-156535-12	CCR-AP-2I-050923	Total Recoverable	Water	3005A	
180-156535-13	CCR-AP-1R-051023	Total Recoverable	Water	3005A	
180-156535-14	FB-1-051123	Total Recoverable	Water	3005A	
180-156535-15	FB-2-051123	Total Recoverable	Water	3005A	
180-156535-16	MH-2-05092023	Total Recoverable	Water	3005A	
180-156535-17	CCR-AP-8-05092023	Total Recoverable	Water	3005A	
180-156535-18	CCR-AP-6-051023	Total Recoverable	Water	3005A	
180-156535-19	FD-PZ-1-05092023	Total Recoverable	Water	3005A	
180-156535-20	MH-1-05092023	Total Recoverable	Water	3005A	
MB 240-578145/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-578145/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-578145/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-156535-1 MS	CCR-AP-5R-050923	Total Recoverable	Water	3005A	
180-156535-1 MS	CCR-AP-5R-050923	Total Recoverable	Water	3005A	
180-156535-1 MSD	CCR-AP-5R-050923	Total Recoverable	Water	3005A	
180-156535-1 MSD	CCR-AP-5R-050923	Total Recoverable	Water	3005A	

Metals

Prep Batch: 578155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-21	CCR-BK-1R-051123	Total Recoverable	Water	3005A	
180-156535-22	DUP-1-050923	Total Recoverable	Water	3005A	
MB 240-578155/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-578155/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-578155/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 578400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total Recoverable	Water	6010D	578145
180-156535-2	CCR-AP-3I-050923	Total Recoverable	Water	6010D	578145
180-156535-3	CCR-AP-3R-050923	Total Recoverable	Water	6010D	578145
180-156535-4	FD-P2-2-051023	Total Recoverable	Water	6010D	578145
180-156535-5	CCR-BK-2-051023	Total Recoverable	Water	6010D	578145
180-156535-6	CCR-AP-11-051023	Total Recoverable	Water	6010D	578145
180-156535-7	CCR-AP-4R-051023	Total Recoverable	Water	6010D	578145
180-156535-8	CCR-AP-10-051023	Total Recoverable	Water	6010D	578145
180-156535-9	CCR-AP-2R-051023	Total Recoverable	Water	6010D	578145
180-156535-10	CCR-AP-9-051023	Total Recoverable	Water	6010D	578145
180-156535-11	CCR-AP-7R-051123	Total Recoverable	Water	6010D	578145
180-156535-12	CCR-AP-2I-050923	Total Recoverable	Water	6010D	578145
180-156535-13	CCR-AP-1R-051023	Total Recoverable	Water	6010D	578145
180-156535-14	FB-1-051123	Total Recoverable	Water	6010D	578145
180-156535-15	FB-2-051123	Total Recoverable	Water	6010D	578145
180-156535-16	MH-2-05092023	Total Recoverable	Water	6010D	578145
180-156535-17	CCR-AP-8-05092023	Total Recoverable	Water	6010D	578145
180-156535-18	CCR-AP-6-051023	Total Recoverable	Water	6010D	578145
180-156535-19	FD-PZ-1-05092023	Total Recoverable	Water	6010D	578145
180-156535-20	MH-1-05092023	Total Recoverable	Water	6010D	578145
180-156535-21	CCR-BK-1R-051123	Total Recoverable	Water	6010D	578155
180-156535-22	DUP-1-050923	Total Recoverable	Water	6010D	578155
MB 240-578145/1-A	Method Blank	Total Recoverable	Water	6010D	578145
MB 240-578155/1-A	Method Blank	Total Recoverable	Water	6010D	578155
LCS 240-578145/2-A	Lab Control Sample	Total Recoverable	Water	6010D	578145
LCS 240-578155/2-A	Lab Control Sample	Total Recoverable	Water	6010D	578155
180-156535-1 MS	CCR-AP-5R-050923	Total Recoverable	Water	6010D	578145
180-156535-1 MSD	CCR-AP-5R-050923	Total Recoverable	Water	6010D	578145

Analysis Batch: 578501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total Recoverable	Water	6020B	578145
180-156535-2	CCR-AP-3I-050923	Total Recoverable	Water	6020B	578145
180-156535-3	CCR-AP-3R-050923	Total Recoverable	Water	6020B	578145
180-156535-4	FD-P2-2-051023	Total Recoverable	Water	6020B	578145
180-156535-5	CCR-BK-2-051023	Total Recoverable	Water	6020B	578145
180-156535-6	CCR-AP-11-051023	Total Recoverable	Water	6020B	578145
180-156535-7	CCR-AP-4R-051023	Total Recoverable	Water	6020B	578145
180-156535-8	CCR-AP-10-051023	Total Recoverable	Water	6020B	578145
180-156535-9	CCR-AP-2R-051023	Total Recoverable	Water	6020B	578145
180-156535-10	CCR-AP-9-051023	Total Recoverable	Water	6020B	578145
180-156535-11	CCR-AP-7R-051123	Total Recoverable	Water	6020B	578145
180-156535-12	CCR-AP-2I-050923	Total Recoverable	Water	6020B	578145

Metals (Continued)

Analysis Batch: 578501 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-13	CCR-AP-1R-051023	Total Recoverable	Water	6020B	578145
180-156535-14	FB-1-051123	Total Recoverable	Water	6020B	578145
180-156535-15	FB-2-051123	Total Recoverable	Water	6020B	578145
180-156535-16	MH-2-05092023	Total Recoverable	Water	6020B	578145
180-156535-17	CCR-AP-8-05092023	Total Recoverable	Water	6020B	578145
180-156535-18	CCR-AP-6-051023	Total Recoverable	Water	6020B	578145
180-156535-19	FD-PZ-1-05092023	Total Recoverable	Water	6020B	578145
180-156535-20	MH-1-05092023	Total Recoverable	Water	6020B	578145
180-156535-21	CCR-BK-1R-051123	Total Recoverable	Water	6020B	578155
180-156535-22	DUP-1-050923	Total Recoverable	Water	6020B	578155
MB 240-578145/1-A	Method Blank	Total Recoverable	Water	6020B	578145
MB 240-578155/1-A	Method Blank	Total Recoverable	Water	6020B	578155
LCS 240-578145/3-A	Lab Control Sample	Total Recoverable	Water	6020B	578145
LCS 240-578155/3-A	Lab Control Sample	Total Recoverable	Water	6020B	578155
180-156535-1 MS	CCR-AP-5R-050923	Total Recoverable	Water	6020B	578145
180-156535-1 MSD	CCR-AP-5R-050923	Total Recoverable	Water	6020B	578145

General Chemistry

Analysis Batch: 435221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total/NA	Water	SM 2540C	
180-156535-2	CCR-AP-3I-050923	Total/NA	Water	SM 2540C	
180-156535-3	CCR-AP-3R-050923	Total/NA	Water	SM 2540C	
180-156535-4	FD-P2-2-051023	Total/NA	Water	SM 2540C	
180-156535-5	CCR-BK-2-051023	Total/NA	Water	SM 2540C	
180-156535-6	CCR-AP-11-051023	Total/NA	Water	SM 2540C	
180-156535-12	CCR-AP-2I-050923	Total/NA	Water	SM 2540C	
180-156535-16	MH-2-05092023	Total/NA	Water	SM 2540C	
180-156535-17	CCR-AP-8-05092023	Total/NA	Water	SM 2540C	
180-156535-19	FD-PZ-1-05092023	Total/NA	Water	SM 2540C	
180-156535-20	MH-1-05092023	Total/NA	Water	SM 2540C	
180-156535-22	DUP-1-050923	Total/NA	Water	SM 2540C	
MB 180-435221/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-435221/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 435225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-7	CCR-AP-4R-051023	Total/NA	Water	SM 2540C	
180-156535-8	CCR-AP-10-051023	Total/NA	Water	SM 2540C	
180-156535-9	CCR-AP-2R-051023	Total/NA	Water	SM 2540C	
180-156535-10	CCR-AP-9-051023	Total/NA	Water	SM 2540C	
180-156535-13	CCR-AP-1R-051023	Total/NA	Water	SM 2540C	
180-156535-18	CCR-AP-6-051023	Total/NA	Water	SM 2540C	
MB 180-435225/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-435225/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 435349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-11	CCR-AP-7R-051123	Total/NA	Water	SM 2540C	
180-156535-14	FB-1-051123	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 435349 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-15	FB-2-051123	Total/NA	Water	SM 2540C	
180-156535-21	CCR-BK-1R-051123	Total/NA	Water	SM 2540C	
MB 180-435349/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-435349/2	Lab Control Sample	Total/NA	Water	SM 2540C	
180-156535-11 DU	CCR-AP-7R-051123	Total/NA	Water	SM 2540C	

Analysis Batch: 435462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-16	MH-2-05092023	Total/NA	Water	EPA 9040C	
180-156535-17	CCR-AP-8-05092023	Total/NA	Water	EPA 9040C	
180-156535-18	CCR-AP-6-051023	Total/NA	Water	EPA 9040C	
180-156535-19	FD-PZ-1-05092023	Total/NA	Water	EPA 9040C	
180-156535-20	MH-1-05092023	Total/NA	Water	EPA 9040C	
180-156535-21	CCR-BK-1R-051123	Total/NA	Water	EPA 9040C	
180-156535-22	DUP-1-050923	Total/NA	Water	EPA 9040C	
LCS 180-435462/1	Lab Control Sample	Total/NA	Water	EPA 9040C	
LCS 180-435462/24	Lab Control Sample	Total/NA	Water	EPA 9040C	

Analysis Batch: 435740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total/NA	Water	EPA 9040C	
180-156535-2	CCR-AP-3I-050923	Total/NA	Water	EPA 9040C	
180-156535-3	CCR-AP-3R-050923	Total/NA	Water	EPA 9040C	
180-156535-4	FD-P2-2-051023	Total/NA	Water	EPA 9040C	
180-156535-5	CCR-BK-2-051023	Total/NA	Water	EPA 9040C	
180-156535-6	CCR-AP-11-051023	Total/NA	Water	EPA 9040C	
180-156535-7	CCR-AP-4R-051023	Total/NA	Water	EPA 9040C	
180-156535-8	CCR-AP-10-051023	Total/NA	Water	EPA 9040C	
180-156535-9	CCR-AP-2R-051023	Total/NA	Water	EPA 9040C	
180-156535-10	CCR-AP-9-051023	Total/NA	Water	EPA 9040C	
180-156535-11	CCR-AP-7R-051123	Total/NA	Water	EPA 9040C	
180-156535-12	CCR-AP-2I-050923	Total/NA	Water	EPA 9040C	
180-156535-13	CCR-AP-1R-051023	Total/NA	Water	EPA 9040C	
180-156535-15	FB-2-051123	Total/NA	Water	EPA 9040C	
LCS 180-435740/1	Lab Control Sample	Total/NA	Water	EPA 9040C	
LCS 180-435740/24	Lab Control Sample	Total/NA	Water	EPA 9040C	
180-156535-4 DU	FD-P2-2-051023	Total/NA	Water	EPA 9040C	
180-156535-8 DU	CCR-AP-10-051023	Total/NA	Water	EPA 9040C	

Analysis Batch: 436668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-14	FB-1-051123	Total/NA	Water	EPA 9040C	
LCS 180-436668/1	Lab Control Sample	Total/NA	Water	EPA 9040C	

Rad

Prep Batch: 612568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total/NA	Water	PrecSep-21	
180-156535-2	CCR-AP-3I-050923	Total/NA	Water	PrecSep-21	
180-156535-3	CCR-AP-3R-050923	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 612568 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-4	FD-P2-2-051023	Total/NA	Water	PrecSep-21	
180-156535-5	CCR-BK-2-051023	Total/NA	Water	PrecSep-21	
180-156535-6	CCR-AP-11-051023	Total/NA	Water	PrecSep-21	
180-156535-7	CCR-AP-4R-051023	Total/NA	Water	PrecSep-21	
180-156535-8	CCR-AP-10-051023	Total/NA	Water	PrecSep-21	
180-156535-9	CCR-AP-2R-051023	Total/NA	Water	PrecSep-21	
180-156535-10	CCR-AP-9-051023	Total/NA	Water	PrecSep-21	
180-156535-11	CCR-AP-7R-051123	Total/NA	Water	PrecSep-21	
180-156535-12	CCR-AP-2I-050923	Total/NA	Water	PrecSep-21	
180-156535-13	CCR-AP-1R-051023	Total/NA	Water	PrecSep-21	
180-156535-14	FB-1-051123	Total/NA	Water	PrecSep-21	
MB 160-612568/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-612568/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
180-156535-1 DU	CCR-AP-5R-050923	Total/NA	Water	PrecSep-21	

Prep Batch: 612569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-15	FB-2-051123	Total/NA	Water	PrecSep-21	
180-156535-16	MH-2-05092023	Total/NA	Water	PrecSep-21	
180-156535-17	CCR-AP-8-05092023	Total/NA	Water	PrecSep-21	
180-156535-18	CCR-AP-6-051023	Total/NA	Water	PrecSep-21	
180-156535-19	FD-PZ-1-05092023	Total/NA	Water	PrecSep-21	
180-156535-20	MH-1-05092023	Total/NA	Water	PrecSep-21	
180-156535-21	CCR-BK-1R-051123	Total/NA	Water	PrecSep-21	
180-156535-22	DUP-1-050923	Total/NA	Water	PrecSep-21	
MB 160-612569/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-612569/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-612569/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 612632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-1	CCR-AP-5R-050923	Total/NA	Water	PrecSep_0	
180-156535-2	CCR-AP-3I-050923	Total/NA	Water	PrecSep_0	
180-156535-3	CCR-AP-3R-050923	Total/NA	Water	PrecSep_0	
180-156535-4	FD-P2-2-051023	Total/NA	Water	PrecSep_0	
180-156535-5	CCR-BK-2-051023	Total/NA	Water	PrecSep_0	
180-156535-6	CCR-AP-11-051023	Total/NA	Water	PrecSep_0	
180-156535-7	CCR-AP-4R-051023	Total/NA	Water	PrecSep_0	
180-156535-8	CCR-AP-10-051023	Total/NA	Water	PrecSep_0	
180-156535-9	CCR-AP-2R-051023	Total/NA	Water	PrecSep_0	
180-156535-10	CCR-AP-9-051023	Total/NA	Water	PrecSep_0	
180-156535-11	CCR-AP-7R-051123	Total/NA	Water	PrecSep_0	
180-156535-12	CCR-AP-2I-050923	Total/NA	Water	PrecSep_0	
180-156535-13	CCR-AP-1R-051023	Total/NA	Water	PrecSep_0	
180-156535-14	FB-1-051123	Total/NA	Water	PrecSep_0	
MB 160-612632/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-612632/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
180-156535-1 DU	CCR-AP-5R-050923	Total/NA	Water	PrecSep_0	

Rad

Prep Batch: 612683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-156535-15	FB-2-051123	Total/NA	Water	PrecSep_0	
180-156535-16	MH-2-05092023	Total/NA	Water	PrecSep_0	
180-156535-17	CCR-AP-8-05092023	Total/NA	Water	PrecSep_0	
180-156535-18	CCR-AP-6-051023	Total/NA	Water	PrecSep_0	
180-156535-19	FD-PZ-1-05092023	Total/NA	Water	PrecSep_0	
180-156535-20	MH-1-05092023	Total/NA	Water	PrecSep_0	
180-156535-21	CCR-BK-1R-051123	Total/NA	Water	PrecSep_0	
180-156535-22	DUP-1-050923	Total/NA	Water	PrecSep_0	
MB 160-612683/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-612683/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-612683/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax. 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Haley & Aldrich	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-91208-15023 1
Client Contact: Britton Hundley	Phone: 803-617-8687	E-Mail: Ken.Hayes@et eurofinsus.com	State of Origin: IN	Page: Page 1 of 4
Company: Haley & Aldrich, Inc.	PWSID:			Job #: 0129420-037-001-01
Address: 400 Augusta Street Suite 100	Due Date Requested: STANDARD			
City: Greenville	TAT Requested (days): STANDARD			
State, Zip: SC, 29601	Compliance Project: Δ Yes Δ No			
Phone: 864-214-8750(Tel)	PO #: 0129420-037-001-01			
Email: BHundley@haleyaldrich.com	WO #: 0129420-037-001-01			
Project Name: AB Brown Genertating Station	Project #: 18016014			
Site: ASH POND	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Tnzma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9040C, 9056A_ORGFM_28D	6020A, 7470A	2540C_Calcd - Local Method	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Ra226Ra228_GFPC - Local Method	6010D - (MOD) Boron	Total Number of containers	Special Instructions
			Preservation Code:				N	D	N	D	D	D	D		
CCR-AP-5R-050923	5/9/23	1230	WG	Water	N	Y	X	X	X	X	X	X	X	18	MS/MSD
CCR-AP-3I-050923		1525	WG	Water	N	N								6	
CCR-AP-3R-050923		1720	WG	Water										6	
FD-P2-2-051023	5/10/23	1100	WG	Water										6	
CCR-BK-2-051023		1445	WG	Water										6	
CCR-AP-11-051023		1245	WG	Water										6	
CCR-AP-4R-051023		1650	WG	Water										6	
CCR-AP-10-051023		1525	WG	Water										6	
CCR-AP-2R-051023		0935	WG	Water										6	
CCR-AP-9-051023		1120	WG	Water										6	
CCR-AP-7R-051123	5/11/23	0750	WG	Water										6	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Francis Rud	5/11/23 1700	H&A		5-12-23 0945	EPI
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company

Custody Seals Intact. Δ Yes Δ No | Custody Seal No: 2161657

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

180-156535 Chain of Custody

Eurofins Pittsburgh

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Haley & Aldrich	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-91208-15023 1
Client Contact: Britton Hundley	Phone: 803-617-8687	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: IN	Page: Page 1 of 4
Company: Haley & Aldrich, Inc.	PWSID:			Job #: 0129420-037-001-01
Address: 400 Augusta Street Suite 100	Due Date Requested: STANDARD			
City: Greenville	TAT Requested (days): STANDARD			
State, Zip: SC, 29601	Compliance Project: Δ Yes Δ No			
Phone: 864-214-8750(Tel)	PO #: 0129420-037-001-01			
Email: BHundley@haleyaldrich com	WO #: 0129420-037-001-01			
Project Name: AB Brown Genertating Station	Project #: 18016014			
Site: ASH POND	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Y - Trizma
	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9040C, 9056A_ORGFM_28D	6020A, 7470A	2540C_Calcd - Local Method	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Ra226Ra228_GFPC - Local Method	6010D - (MOD) Boron	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	D	N	D	D	D	D		
CCR - AP -2I -050923	5/9/23	1015	WG	Water	N	N	X	X	X	X	X	X	X	6	
CCR - AP -1R - 051023	5/10/23	1320	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	
FB - 1 -051123	5/11/23	1150	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	
FB - 2 -051123	5/11/23	1220	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	
MH -2- 05092023	5/9/23	1125	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	
CCR - AP -8 -05092023	5/9/23	1705	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	
CCR - AP - 6 - 051023	5/10/23	0920	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	
FD- PZ -1 -05092023	5/9/23	1015	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	
MH-1- 05092023	5/9/23	1250	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	
CCR - BK -1R -051123	5/11/23	0820	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	
				Water											

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:		Method of Shipment:	
Relinquished by: Francis Reed	Date/Time: 5/11/23 1700	Company: H&A	Received by: [signature]	Date/Time: 5-12-23 0945		Company: EPITTMF
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:		Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:		Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks:			

Ver: 06/08/2021

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Haley & Aldrich	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-91208-15023.1
Client Contact: Britton Hundley	Phone: 803-617-8687	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: IN	Page: Page 1 of 4
Company: Haley & Aldrich, Inc.	PWSID:			Job #: 0129420-037-001-01
Address: 400 Augusta Street Suite 100	Due Date Requested: STANDARD			
City: Greenville	TAT Requested (days): STANDARD			
State, Zip: SC, 29601	Compliance Project: Δ Yes Δ No			
Phone: 864-214-8750(Tel)	PO #: 0129420-037-001-01			
Email: BHundley@haleyaldrich.com	WO #: 0129420-037-001-01			
Project Name: AB Brown Genertating Station	Project #: 18016014			
Site: ASH POND	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9040C, 9056A_ORGFM_28D	6020A, 7470A	2540C_Calcd - Local Method	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Ra226Ra228_GFPC - Local Method	6010D - (MOD) Boron	Total Number of containers	Special Instructi
			Preservation Code:				N	D	N	D	D	D	D		
CCR-AP-5R-050923	5/9/23	1230	WG	Water	N	Y	X	X	X	X	X	X	X	18	MS/MSD
CCR-AP-3I-050923	↓	1525	WG	Water	N	N								6	
CCR-AP-3R-050923	↓	1720	WG	Water										6	
FD-P2-2-051023	5/10/23	1100	WG	Water										6	
CCR-BK-2-051023		1445	WG	Water										6	
CCR-AP-11-051023		1245	WG	Water										6	
CCR-AP-4R-051023		1650	WG	Water										6	
CCR-AP-10-051023		1525	WG	Water										6	
CCR-AP-2R-051023		0935	WG	Water										6	
CCR-AP-9-051023	↓	1120	WG	Water										6	
CCR-AP-7R-051123	5/11/23	0750	WG	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	6	

180-156535 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Francis Rud	5/11/23 1700	H&A		5-12-23 0945	EPHF
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No: 2161657	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax. 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Haley & Aldrich	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-91208-15023 1
Client Contact: Britton Hundley	Phone: 803-617-8687	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: IN	Page: Page 1 of 4
Company: Haley & Aldrich, Inc	PWSID:			Job #: 0129420-037-001-01
Address: 400 Augusta Street Suite 100	Due Date Requested: STANDARD			
City: Greenville	TAT Requested (days): STANDARD			
State, Zip: SC, 29601	Compliance Project: Δ Yes Δ No			
Phone: 864-214-8750(Tel)	PO #: 0129420-037-001-01			
Email: BHundley@haleyaldrich com	WO #: 0129420-037-001-01			
Project Name: AB Brown Genertating Station	Project #: 18016014			
Site: ASH POND	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Tnzma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9040C, 9056A_ORGFM_28D	6020A, 7470A	2540C_Calcd - Local Method	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Ra226Ra228_GFPC - Local Method	6010D - (MOD) Boron	Total Number of containers	Special Instructions/Note:
			*Preservation Code:				N	D	N	D	D	D	D		
CCR-AP-2I-050923	5/9/23	1015	WG	Water	N	N	X	X	X	X	X	X	X	6	
CCR-AP-1R-051023	5/10/23	1320	WG	Water										6	
FB-1-051123	5/11/23	1150	WG	Water										6	
FB-2-051123	5/11/23	1220	WG	Water										6	
MH-2-05092023	5/9/23	1125	WG	Water										6	
CCR-AP-8-05092023	5/9/23	1705	WG	Water										6	
CCR-AP-6-051023	5/10/23	0920	WG	Water										6	
FD-PZ-1-05092023	5/9/23	1015	WG	Water										6	
MH-1-05092023	5/9/23	1250	WG	Water										6	
CCR-BK-1R-051123	5/11/23	0820	WG	Water										6	
				Water											

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1	Francis Reid	5/11/23 1700	H&A		5/12/23 0945	EPI
2						
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-489429.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: Indiana	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note):		Job #: 180-156535-2
Address: 180 S. Van Buren Avenue,	Due Date Requested: 5/25/2023	Analysis Requested		Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 18016014			
Site:	SSOW#:			Other:

Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify)

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010D/3005A (MOD) Boron	6020B/3005A (MOD) Custom Sublist	Total Number of containers	Special Instructions/Note:
			Preservation Code:							M48
FD-P2-2-051023 (180-156535-4)	5/10/23	11:00 Eastern		Water			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 6-19-23 5:00	Company: EHHE	Received by: [signature] M. Smith	Date/Time: 06-21-23 930	Company: EETNC
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 06/08/2021

Eurofins - Canton Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client ETA Site Name _____ Cooler unpacked by: Leah M. Smith

Cooler Received on 06-21-23 Opened on 06-21-23

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: Wet Ice (Blue Ice) Dry Ice Water (None)

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 13 (CF +0.2 °C) Observed Cooler Temp. 21.1 °C Corrected Cooler Temp. 21.3 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	Yes	No (NA)
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	(No)
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?	(Y)	(N)
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	(Yes)	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# 10BDH4321
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____


Do not lift using this tab
SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH, PA 152382907
UNITED STATES US
ACTWGT: 25.00 LB MAN
CAD: 0551803/CAFE3707
BILL SENDER
TO SAMPLE RECEIVING
EUROFINS BARBERTON
180 S VAN BUREN AVENUE
BARBERTON OH 44203
(330) 497-9396
DEPT: COOLERS SMALL
REF: 8180 92757
21.1/21.3
FedEx
Express
1 of 2
TRK# 0201 6426 1929 4202
MASTER
64 CAKA
WED - 21 JUN 10:30A
PRIORITY OVERNIGHT
44203
OH-US CLE

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-489423.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: Indiana	Page: Page 1 of 3
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note):		Job #: 180-156535-2
Address: 180 S. Van Buren Avenue, ,	Due Date Requested: 5/25/2023			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 18016014			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

M48

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010D/3005A (MOD) Boron	6020B/3005A (MOD) Custom Sublist	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CCR-AP-5R-050923 (180-156535-1)	5/9/23	12:30 Eastern		Water			X	X	1	
CCR-AP-5R-050923 (180-156535-1MS)	5/9/23	12:30 Eastern	MS	Water			X	X	1	
CCR-AP-5R-050923 (180-156535-1MSD)	5/9/23	12:30 Eastern	MSD	Water			X	X	1	
CCR-AP-3I-050923 (180-156535-2)	5/9/23	15:25 Eastern		Water			X	X	1	
CCR-AP-3R-050923 (180-156535-3)	5/9/23	17:20 Eastern		Water			X	X	1	
CCR-BK-2-051023 (180-156535-5)	5/10/23	14:45 Eastern		Water			X	X	1	
CCR-AP-11-051023 (180-156535-6)	5/10/23	12:45 Eastern		Water			X	X	1	
CCR-AP-4R-051023 (180-156535-7)	5/10/23	16:50 Eastern		Water			X	X	1	
CCR-AP-10-051023 (180-156535-8)	5/10/23	15:25 Eastern		Water			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
[signature]	6-19-23 5:00	EHDT	[signature]	06-21-23 930	CETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-489423.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: Indiana	Page: Page 2 of 3
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note):		Job #: 180-156535-2
Address: 180 S. Van Buren Avenue, ,	Due Date Requested: 5/25/2023			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 18016014			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

M48

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010D/3005A (MOD) Boron	6020B/3005A (MOD) Custom Sublist	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CCR-AP-2R-051023 (180-156535-9)	5/10/23	09:35 Eastern		Water			X	X	1	
CCR-AP-9-051023 (180-156535-10)	5/10/23	11:20 Eastern		Water			X	X	1	
CCR-AP-7R-051123 (180-156535-11)	5/11/23	07:50 Eastern		Water			X	X	1	
CCR-AP-2I-050923 (180-156535-12)	5/9/23	10:15 Eastern		Water			X	X	1	
CCR-AP-1R-051023 (180-156535-13)	5/10/23	13:20 Eastern		Water			X	X	1	
FB-1-051123 (180-156535-14)	5/11/23	11:50 Eastern		Water			X	X	1	
FB-2-051123 (180-156535-15)	5/11/23	12:20 Eastern		Water			X	X	1	
MH-2-05092023 (180-156535-16)	5/9/23	11:25 Eastern		Water			X	X	1	
CCR-AP-8-05092023 (180-156535-17)	5/9/23	17:05 Eastern		Water			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 6-19-23 5:00	Company: E/HRE	Received by: [signature] M. Smith	Date/Time: 06-21-23 930	Company: EETNC
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 06/08/2021

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-489423.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: Indiana	Page: Page 3 of 3
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note):		Job #: 180-156535-2
Address: 180 S. Van Buren Avenue, ,	Due Date Requested: 5/25/2023			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 18016014			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

M48

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010D/3005A (MOD) Boron	6020B/3005A (MOD) Custom Sublist	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CCR-AP-6-051023 (180-156535-18)	5/10/23	09:20 Eastern		Water			X	X	1	
FD-PZ-1-05092023 (180-156535-19)	5/9/23	10:15 Eastern		Water			X	X	1	
MH-1-05092023 (180-156535-20)	5/9/23	12:50 Eastern		Water			X	X	1	
CCR-BK-1R-051123 (180-156535-21)	5/11/23	08:20 Eastern		Water			X	X	1	
DUP-1-050923 (180-156535-22)	5/9/23	17:20 Eastern		Water				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6-9-23 5:00	EEHH	[signature] M. Smith	06-21-23 930	EETNC
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins - Canton Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client ETA Site Name _____ Cooler unpacked by: Leah M. Smith

Cooler Received on 06-21-23 Opened on 06-21-23

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 13 (CF +0.2 °C) Observed Cooler Temp. 21.1 °C Corrected Cooler Temp. 21.3 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# 10BDH4321
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE

PITTSBURGH, PA 152382907
UNITED STATES US

ACTWGT: 25.00 LB MAN
CAD: 0551803/CAFE3707

BILL SENDER

TO SAMPLE RECEIVING
EUROFINS BARBERTON
180 S VAN BUREN AVENUE

BARBERTON OH 44203
(330) 497-9396
DEPT: COOLERS SMALL

REF: S180 92757

21.1/21.3

FedEx Express

1 of 2
TRK# 0201 6426 1929 4202
MASTER
64 CAKA

WED - 21 JUN 10:30A
PRIORITY OVERNIGHT

44203
OH-US CLE

RT 164 6
FZ 10:30 A
4202
06.21

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 180-156535-2

Login Number: 156535
List Number: 1
Creator: Kovitch, Christina M

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13

ANALYTICAL REPORT

PREPARED FOR

Attn: Todd Plating
Haley & Aldrich, Inc.
400 Augusta Street
Suite 100
Greenville, South Carolina 29601

Generated 12/20/2023 1:34:36 PM

JOB DESCRIPTION

AB Brown Generating Station
Ash Pond

JOB NUMBER

180-165101-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

myEOL

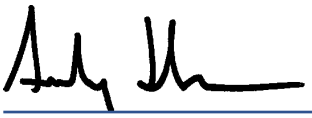
Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization



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12/20/2023 1:34:36 PM

Authorized for release by
Andy Johnson, Senior Project Manager
Andy.Johnson@et.eurofinsus.com
(615)818-9567

Table of Contents

Job Narrative
180-165101-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/9/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.3°C, 1.4°C, 2.2°C, 2.7°C and 3.2°C

HPLC/IC
Method 9056A_ORGFM_28D: Due to the high concentration of sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 180-451736 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 9056A_ORGFM_28D: The continuing calibration verification (CCV) associated with batch 180-451736 recovered above the upper control limit for chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: FB-1-110823 (180-165101-12) and (CCV 180-451736/16).

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MH-1-110723 (180-165101-1), MH-2-110723 (180-165101-3), CCR-AP-3R-110723 (180-165101-4), FD-PZ-1-110723 (180-165101-5), CCR-AP-5R-110723 (180-165101-6), CCR-AP-5R-110723 (180-165101-6[MS]), CCR-AP-5R-110723 (180-165101-6[MSD]), DUP-1-110823 (180-165101-9), CCR-AP-2R-110823 (180-165101-11), CCR-AP-8-110823 (180-165101-13), CCR-AP-9-110823 (180-165101-15), CCR-AP-10-110823 (180-165101-16) and CCR-AP-1R-110823 (180-165101-17) at 5.0, 5.0, 10.0, 5.0, 5.0, 5.0, 5.0, 2.5, 5.0, 2.5, 10.0, 2.5 and 2.5. Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MH-2-110723 (180-165101-3), CCR-AP-3R-110723 (180-165101-4), FD-PZ-1-110723 (180-165101-5), CCR-AP-2R-110823 (180-165101-11) and CCR-AP-1R-110823 (180-165101-17) at 5.0, 10.0, 5.0, 5.0 and 2.5. Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D: The method blank for preparation batch 180-451849 and analytical batch 180-452510 contained boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020A: The following samples were diluted to bring the concentration of target analytes within the calibration range: CCR-AP-5R-110723 (180-165101-6[MS]), CCR-AP-5R-110723 (180-165101-6[MSD]), (LCS 180-451850/2-A ^5) and (180-165101-E-6-B PDS ^5). Elevated reporting limits (RLs) are provided.

Method 6020A: The linear range check (LRC) failed for barium, cadmium, and antimony for samples MH-1-110723 (180-165101-1), CCR-AP-3I-110723 (180-165101-2), MH-2-110723 (180-165101-3), CCR-AP-3R-110723 (180-165101-4), FD-PZ-1-110723 (180-165101-5), CCR-AP-5R-110723 (180-165101-6), CCR-AP-5R-110723 (180-165101-6[MS]), CCR-AP-5R-110723 (180-165101-6[MSD]), CCR-AP-2I-110723 (180-165101-7), CCR-AP-11-110723 (180-165101-8), DUP-1-110823 (180-165101-9), FD-PZ-2-110823 (180-165101-10), CCR-AP-2R-110823 (180-165101-11), FB-1-110823 (180-165101-12), CCR-AP-8-110823 (180-165101-13), CCR-AP-4R-110823 (180-165101-14), CCR-AP-9-110823 (180-165101-15), CCR-AP-10-110823 (180-165101-16), CCR-AP-1R-110823 (180-165101-17), CCR-BK-1R-110823 (180-165101-18), (180-165101-E-6-B PDS ^5) and (180-165101-E-6-B SD) and results were substantiated by a secondary verification; the Calibration Standard, the LCS, or CCV. Results are reported, as is, with this narrative.

Method 6020A: The post digestion spike % recoveries for molybdenum, antimony, and boron associated with batch 180-452225 were outside of control limits. The associated samples are: MH-1-110723 (180-165101-1), CCR-AP-3I-110723 (180-165101-2), MH-2-110723 (180-165101-3), CCR-AP-3R-110723 (180-165101-4), FD-PZ-1-110723 (180-165101-5), CCR-AP-5R-110723 (180-165101-6), CCR-AP-2I-110723 (180-165101-7), CCR-AP-11-110723 (180-165101-8), DUP-1-110823 (180-165101-9), FD-PZ-2-110823 (180-165101-10), CCR-AP-2R-110823 (180-165101-11), FB-1-110823 (180-165101-12), CCR-AP-8-110823 (180-165101-13), CCR-AP-4R-110823 (180-165101-14), CCR-AP-9-110823 (180-165101-15), CCR-AP-10-110823 (180-165101-16), CCR-AP-1R-110823 (180-165101-17) and CCR-BK-1R-110823 (180-165101-18).

Method 6020A: The serial dilution performed for the following sample associated with batch 180-452225 was outside control limits: CCR-AP-5R-110723 (180-165101-6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2540C_Calcd: The sample did not reach a stable weight following 3 cycles of heating, cooling, and desiccation. The cycle 3 weight was used to calculate the Total Dissolved Solids (TDS) for the sample result. DUP-1-110823 (180-165101-9), FB-1-110823 (180-165101-12) and CCR-AP-8-110823 (180-165101-13)

Method 2540C_Calcd: The sample did not reach a stable weight following 3 cycles of heating, cooling, and desiccation. The cycle 3 weight was used to calculate the Total Dissolved Solids (TDS) for the sample result. CCR-AP-10-110823 (180-165101-16)

Method 9040C: The sample duplicate precision for the following sample associated with 9040C was outside control limits: CCR-AP-5R-110723 (180-165101-6) and CCR-AP-5R-110723 (180-165101-6[DU]). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^5+	Linear Range Check (LRC) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-24
California	State	2891	04-30-24
Connecticut	State	PH-0688	12-12-23
Florida	NELAP	E871008	12-12-23
Georgia	State	PA 02-00416	12-12-23
Illinois	NELAP	004375	12-12-23
Kansas	NELAP	E-10350	12-12-23
Kentucky (UST)	State	162013	04-30-23 *
Kentucky (WW)	State	KY98043	12-31-23
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	12-12-23
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-12-23
New Hampshire	NELAP	2030	12-12-23
New Jersey	NELAP	PA005	12-12-23
New York	NELAP	11182	12-12-23
North Carolina (WW/SW)	State	434	12-31-23
North Dakota	State	R-227	04-30-24
Oregon	NELAP	PA-2151	02-06-24
Pennsylvania	NELAP	02-00416	12-12-23
Rhode Island	State	LAO00362	12-31-22 *
South Carolina	State	89014	04-30-23 *
Texas	NELAP	T104704528	12-12-23
US Fish & Wildlife	US Federal Programs	058448	03-31-24
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462019-8	05-31-24
Virginia	NELAP	10043	12-12-23
West Virginia DEP	State	142	01-31-24
Wisconsin	State	998027800	08-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Job ID: 180-165101-1
Project/Site: AB Brown Generating Station
SDG: Ash Pond

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-165101-1	MH-1-110723	Water	11/07/23 09:15	11/09/23 09:30
180-165101-2	CCR-AP-3I-110723	Water	11/07/23 09:47	11/09/23 09:30
180-165101-3	MH-2-110723	Water	11/07/23 09:55	11/09/23 09:30
180-165101-4	CCR-AP-3R-110723	Water	11/07/23 11:15	11/09/23 09:30
180-165101-5	FD-PZ-1-110723	Water	11/07/23 12:15	11/09/23 09:30
180-165101-6	CCR-AP-5R-110723	Water	11/07/23 12:53	11/09/23 09:30
180-165101-7	CCR-AP-2I-110723	Water	11/07/23 15:22	11/09/23 09:30
180-165101-8	CCR-AP-11-110723	Water	11/07/23 15:55	11/09/23 09:30
180-165101-9	DUP-1-110823	Water	11/08/23 00:00	11/09/23 09:30
180-165101-10	FD-PZ-2-110823	Water	11/08/23 08:15	11/09/23 09:30
180-165101-11	CCR-AP-2R-110823	Water	11/08/23 09:05	11/09/23 09:30
180-165101-12	FB-1-110823	Water	11/08/23 09:30	11/09/23 09:30
180-165101-13	CCR-AP-8-110823	Water	11/08/23 10:15	11/09/23 09:30
180-165101-14	CCR-AP-4R-110823	Water	11/08/23 12:35	11/09/23 09:30
180-165101-15	CCR-AP-9-110823	Water	11/08/23 12:55	11/09/23 09:30
180-165101-16	CCR-AP-10-110823	Water	11/08/23 11:20	11/09/23 09:30
180-165101-17	CCR-AP-1R-110823	Water	11/08/23 14:00	11/09/23 09:30
180-165101-18	CCR-BK-1R-110823	Water	11/08/23 15:20	11/09/23 09:30

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	EET PIT
EPA 6010D	Metals (ICP)	SW846	EET PIT
EPA 6020A	Metals (ICP/MS)	SW846	EET PIT
EPA 7470A	Mercury (CVAA)	SW846	EET PIT
EPA 9040C	pH	SW846	EET PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PIT
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PIT
7470A	Preparation, Mercury	SW846	EET PIT
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: MH-1-110723

Date Collected: 11/07/23 09:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 19:59	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	451736	11/13/23 21:09	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 19:06	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 15:54	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:38	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:02	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	451923	11/14/23 15:25	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			994.76 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640737	12/14/23 07:15	FLC	EET SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			994.76 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640619	12/13/23 11:33	EMH	EET SL
	Instrument ID: GFPCORANGE									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-3I-110723

Date Collected: 11/07/23 09:47
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 21:23	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 19:11	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 15:57	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:39	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:06	BAB	EET PIT
	Instrument ID: OZ									

Client Sample ID: CCR-AP-3I-110723

Lab Sample ID: 180-165101-2

Date Collected: 11/07/23 09:47

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	451923	11/14/23 15:25	LWM	EET PIT
Total/NA	Prep	PrecSep-21			1000.48 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640737	12/14/23 09:00	FLC	EET SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			1000.48 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:38	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: MH-2-110723

Lab Sample ID: 180-165101-3

Date Collected: 11/07/23 09:55

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 17:27	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	451736	11/13/23 18:22	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	452000	11/16/23 10:43	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 19:16	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:00	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:40	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:11	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	451923	11/14/23 15:25	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1000.81 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.81 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:38	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-3R-110723

Date Collected: 11/07/23 11:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 17:13	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	451736	11/13/23 18:08	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	452000	11/16/23 10:29	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 19:21	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:03	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:42	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452358	11/18/23 14:57	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	15 mL	100 mL	451923	11/14/23 15:25	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1000.49 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.49 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:38	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: FD-PZ-1-110723

Date Collected: 11/07/23 12:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 17:41	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	451736	11/13/23 18:36	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	452000	11/16/23 11:11	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 19:27	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:21	S1Z	EET PIT
	Instrument ID: NEMO									

Client Sample ID: FD-PZ-1-110723

Lab Sample ID: 180-165101-5

Date Collected: 11/07/23 12:15
Matrix: Water
Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:43	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:21	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	451923	11/14/23 15:25	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1011.26 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1011.26 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:38	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-5R-110723

Lab Sample ID: 180-165101-6

Date Collected: 11/07/23 12:53
Matrix: Water
Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 14:04	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	451736	11/13/23 14:45	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 19:32	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:24	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:44	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:31	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	451923	11/14/23 15:25	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1004.22 mL	1.0 g	636867	11/15/23 07:01	BMW	EET SL
Total/NA	Analysis	9315		1			640846	12/15/23 21:11	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1004.22 mL	1.0 g	636989	11/15/23 07:23	BMW	EET SL
Total/NA	Analysis	9320		1			640847	12/15/23 11:51	FLC	EET SL
	Instrument ID: GFPCORANGE									

Client Sample ID: CCR-AP-5R-110723

Lab Sample ID: 180-165101-6

Date Collected: 11/07/23 12:53

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL

Client Sample ID: CCR-AP-2I-110723

Lab Sample ID: 180-165101-7

Date Collected: 11/07/23 15:22

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 21:37	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 20:08	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:39	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:50	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:40	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	451923	11/14/23 15:25	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			760.99 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			760.99 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:38	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-11-110723

Lab Sample ID: 180-165101-8

Date Collected: 11/07/23 15:55

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 22:32	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	452000	11/16/23 11:52	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 20:13	AAS	EET PIT
	Instrument ID: C									

Client Sample ID: CCR-AP-11-110723

Lab Sample ID: 180-165101-8

Date Collected: 11/07/23 15:55

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:42	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:51	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:45	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	451923	11/14/23 15:25	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1001.69 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1001.69 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:37	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1-110823

Lab Sample ID: 180-165101-9

Date Collected: 11/08/23 00:00

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	451736	11/13/23 20:41	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 20:18	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:45	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:52	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:50	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	451933	11/14/23 18:03	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1007.09 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1007.09 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:37	FLC	EET SL
	Instrument ID: GFPCRED									

Client Sample ID: DUP-1-110823

Lab Sample ID: 180-165101-9

Date Collected: 11/08/23 00:00
Matrix: Water
Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL

Client Sample ID: FD-PZ-2-110823

Lab Sample ID: 180-165101-10

Date Collected: 11/08/23 08:15
Matrix: Water
Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 21:50	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 20:24	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:48	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:53	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:54	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	451933	11/14/23 18:03	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			745.65 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			745.65 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:37	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-2R-110823

Lab Sample ID: 180-165101-11

Date Collected: 11/08/23 09:05
Matrix: Water
Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 17:54	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	451736	11/13/23 18:50	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	452000	11/16/23 11:25	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 20:29	AAS	EET PIT
	Instrument ID: C									

Client Sample ID: CCR-AP-2R-110823

Lab Sample ID: 180-165101-11

Date Collected: 11/08/23 09:05

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:51	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:54	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 10:59	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	451933	11/14/23 18:03	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1006.45 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1006.45 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:37	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: FB-1-110823

Lab Sample ID: 180-165101-12

Date Collected: 11/08/23 09:30

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 16:59	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 20:34	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:54	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:55	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452358	11/18/23 15:23	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	451933	11/14/23 18:03	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			991.96 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			991.96 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:38	FLC	EET SL
	Instrument ID: GFPCRED									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: FB-1-110823
Date Collected: 11/08/23 09:30
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL

Client Sample ID: CCR-AP-8-110823
Date Collected: 11/08/23 10:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	451736	11/13/23 20:27	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 20:39	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 16:57	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:56	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 11:09	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	451933	11/14/23 18:03	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1007.20 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1007.20 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:38	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-4R-110823
Date Collected: 11/08/23 12:35
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 15:27	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	452000	11/16/23 12:06	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 20:55	AAS	EET PIT
	Instrument ID: C									

Client Sample ID: CCR-AP-4R-110823
Date Collected: 11/08/23 12:35
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 17:00	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:58	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 11:14	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	451933	11/14/23 18:03	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			998.29 mL	1.0 g	636862	11/15/23 06:24	BMW	EET SL
Total/NA	Analysis	9315		1			640734	12/14/23 09:07	MLK	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			998.29 mL	1.0 g	636866	11/15/23 06:57	BMW	EET SL
Total/NA	Analysis	9320		1			640457	12/13/23 11:38	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-9-110823
Date Collected: 11/08/23 12:55
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 19:46	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	451736	11/13/23 20:55	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 21:00	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 17:18	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 16:59	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452212	11/16/23 15:53	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	451933	11/14/23 18:03	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			775.40 mL	1.0 g	636867	11/15/23 07:01	BMW	EET SL
Total/NA	Analysis	9315		1			640846	12/15/23 21:11	FLC	EET SL
	Instrument ID: GFPCBLUE									

Client Sample ID: CCR-AP-9-110823

Lab Sample ID: 180-165101-15

Date Collected: 11/08/23 12:55

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			775.40 mL	1.0 g	636989	11/15/23 07:23	BMW	EET SL
Total/NA	Analysis	9320		1			640847	12/15/23 11:51	FLC	EET SL
	Instrument ID: GFPCORANGE									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-10-110823

Lab Sample ID: 180-165101-16

Date Collected: 11/08/23 11:20

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	451736	11/13/23 20:13	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 21:05	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 17:21	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 17:00	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 11:28	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	452068	11/15/23 18:12	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1006.64 mL	1.0 g	636867	11/15/23 07:01	BMW	EET SL
Total/NA	Analysis	9315		1			640846	12/15/23 21:11	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1006.64 mL	1.0 g	636989	11/15/23 07:23	BMW	EET SL
Total/NA	Analysis	9320		1			640847	12/15/23 11:51	FLC	EET SL
	Instrument ID: GFPCORANGE									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-1R-110823

Lab Sample ID: 180-165101-17

Date Collected: 11/08/23 14:00

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	451736	11/13/23 19:04	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	452000	11/16/23 11:39	AM	EET PIT
	Instrument ID: CHIC2100A									

Client Sample ID: CCR-AP-1R-110823

Lab Sample ID: 180-165101-17

Date Collected: 11/08/23 14:00

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 21:10	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 17:24	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 17:04	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 11:37	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	452068	11/15/23 18:12	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1001.45 mL	1.0 g	636867	11/15/23 07:01	BMW	EET SL
Total/NA	Analysis	9315		1			640846	12/15/23 21:11	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1001.45 mL	1.0 g	636989	11/15/23 07:23	BMW	EET SL
Total/NA	Analysis	9320		1			640847	12/15/23 11:51	FLC	EET SL
	Instrument ID: GFPCORANGE									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-BK-1R-110823

Lab Sample ID: 180-165101-18

Date Collected: 11/08/23 15:20

Matrix: Water

Date Received: 11/09/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	451736	11/13/23 15:41	AM	EET PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	452000	11/16/23 03:37	AM	EET PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	451849	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452510	11/20/23 21:16	AAS	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	451850	11/14/23 09:48	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452225	11/16/23 17:27	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452479	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452853	11/27/23 17:05	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452044	11/15/23 11:43	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	452068	11/15/23 18:12	LWM	EET PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: CCR-BK-1R-110823

Date Collected: 11/08/23 15:20
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			997.72 mL	1.0 g	636867	11/15/23 07:01	BMW	EET SL
Total/NA	Analysis	9315		1			640846	12/15/23 21:11	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			997.72 mL	1.0 g	636989	11/15/23 07:23	BMW	EET SL
Total/NA	Analysis	9320		1			640847	12/15/23 11:51	FLC	EET SL
	Instrument ID: GFPCORANGE									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/20/23 10:40	EMH	EET SL
	Instrument ID: NOEQUIP									

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: EET PIT
- Batch Type: Prep
  - RJR = Ron Rosenbaum
  - SJM = Shannon Mueller
- Batch Type: Analysis
  - AAS = Ariana Swick
  - AM = Adzuira Musule
  - BAB = Brooke Batyi
  - LWM = Leslie McIntire
  - MTW = Michael Wesoloski
  - S1Z = Sage Ziviello

Lab: EET SL
- Batch Type: Prep
  - BMW = Bailey Woodliff
- Batch Type: Analysis
  - EMH = Elizabeth Hoerchler
  - FLC = Fernando Cruz
  - MLK = Micha Korrinhizer

Client Sample ID: MH-1-110723

Date Collected: 11/07/23 09:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-1

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	580		1.0	0.71	mg/L			11/13/23 19:59	1
Fluoride	0.38		0.10	0.026	mg/L			11/13/23 19:59	1
Sulfate	3500		5.0	3.8	mg/L			11/13/23 21:09	5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	14	B	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 19:06	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 15:54	1
Arsenic	0.00043	J	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 15:54	1
Barium	0.025	^5+	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 15:54	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 15:54	1
Cadmium	0.00044	J ^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 15:54	1
Calcium	490		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 15:54	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 15:54	1
Cobalt	0.0024		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 15:54	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 15:54	1
Lithium	0.038		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 15:54	1
Molybdenum	1.3		0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 15:54	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 15:54	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 15:54	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6400		50	50	mg/L			11/14/23 15:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.4	HF	0.1	0.1	SU			11/15/23 10:02	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.112	U	0.181	0.182	1.00	0.312	pCi/L	11/15/23 06:24	12/14/23 07:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*30 - 110*	*11/15/23 06:24*	*12/14/23 07:15*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.409	U	0.310	0.312	1.00	0.473	pCi/L	11/15/23 06:57	12/13/23 11:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:33*	*1*

Client Sample ID: MH-1-110723

Date Collected: 11/07/23 09:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-1

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*86.4*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:33*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.522**		0.359	0.361	5.00	0.473	pCi/L		12/18/23 23:24	1

Client Sample ID: CCR-AP-3I-110723

Date Collected: 11/07/23 09:47
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-2

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**		1.0	0.71	mg/L			11/13/23 21:23	1
Fluoride	**1.6**		0.10	0.026	mg/L			11/13/23 21:23	1
Sulfate	**13**		1.0	0.76	mg/L			11/13/23 21:23	1

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.3**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 19:11	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 15:57	1
Arsenic	**0.00052**	**J**	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 15:57	1
Barium	**0.17**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 15:57	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 15:57	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 15:57	1
Calcium	**16**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 15:57	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 15:57	1
Cobalt	**0.00030**	**J**	0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 15:57	1
Lead	**0.00040**	**J**	0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 15:57	1
Lithium	**0.024**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 15:57	1
Molybdenum	**0.00082**	**J**	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 15:57	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 15:57	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 15:57	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**780**		10	10	mg/L			11/14/23 15:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**8.2**	**HF**	0.1	0.1	SU			11/15/23 10:06	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.262	U	0.198	0.199	1.00	0.295	pCi/L	11/15/23 06:24	12/14/23 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:00*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.607**		0.340	0.345	1.00	0.486	pCi/L	11/15/23 06:57	12/13/23 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: CCR-AP-3I-110723
Date Collected: 11/07/23 09:47
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-2
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	84.9		30 - 110	11/15/23 06:57	12/13/23 11:38	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.869		0.393	0.398	5.00	0.486	pCi/L		12/18/23 23:24	1

Client Sample ID: MH-2-110723

Date Collected: 11/07/23 09:55
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-3

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	700		5.0	3.6	mg/L			11/16/23 10:43	5
Fluoride	0.39		0.10	0.026	mg/L			11/13/23 17:27	1
Sulfate	3700		5.0	3.8	mg/L			11/13/23 18:22	5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	14	B	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 19:16	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:00	1
Arsenic	0.00032	J	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:00	1
Barium	0.020	^5+	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:00	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:00	1
Cadmium	0.00039	J ^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:00	1
Calcium	530		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:00	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:00	1
Cobalt	0.00065		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:00	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:00	1
Lithium	0.032		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:00	1
Molybdenum	0.95		0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:00	1
Selenium	0.0014	J	0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:00	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:00	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6600		50	50	mg/L			11/14/23 15:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.3	HF	0.1	0.1	SU			11/15/23 10:11	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.206	U	0.159	0.160	1.00	0.229	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.719		0.321	0.328	1.00	0.420	pCi/L	11/15/23 06:57	12/13/23 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Client Sample ID: MH-2-110723

Date Collected: 11/07/23 09:55
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-3

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*87.9*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.925**		0.358	0.365	5.00	0.420	pCi/L		12/18/23 23:24	1

Client Sample ID: CCR-AP-3R-110723

Date Collected: 11/07/23 11:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-4

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**900**		10	7.1	mg/L			11/16/23 10:29	10
Fluoride	**1.1**		0.10	0.026	mg/L			11/13/23 17:13	1
Sulfate	**5000**		10	7.6	mg/L			11/13/23 18:08	10

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**15**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 19:21	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:03	1
Arsenic	ND		0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:03	1
Barium	**0.015**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:03	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:03	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:03	1
Calcium	**370**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:03	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:03	1
Cobalt	**0.00038**	**J**	0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:03	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:03	1
Lithium	**0.090**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:03	1
Molybdenum	**0.69**		0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:03	1
Selenium	**0.0028**	**J**	0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:03	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:03	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**9000**		67	67	mg/L			11/14/23 15:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.8**	**HF**	0.1	0.1	SU			11/18/23 14:57	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.293**		0.160	0.162	1.00	0.191	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*110*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.639**		0.300	0.306	1.00	0.398	pCi/L	11/15/23 06:57	12/13/23 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*110*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Client Sample ID: CCR-AP-3R-110723

Date Collected: 11/07/23 11:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-4

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*84.5*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.933**		0.340	0.346	5.00	0.398	pCi/L		12/18/23 23:24	1

Client Sample ID: FD-PZ-1-110723

Date Collected: 11/07/23 12:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-5

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**600**		5.0	3.6	mg/L			11/16/23 11:11	5
Fluoride	**0.38**		0.10	0.026	mg/L			11/13/23 17:41	1
Sulfate	**3400**		5.0	3.8	mg/L			11/13/23 18:36	5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**13**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 19:27	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:21	1
Arsenic	**0.00093**	**J**	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:21	1
Barium	**0.029**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:21	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:21	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:21	1
Calcium	**480**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:21	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:21	1
Cobalt	**0.0021**		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:21	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:21	1
Lithium	**0.035**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:21	1
Molybdenum	**0.67**		0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:21	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:21	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:21	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**6000**		40	40	mg/L			11/14/23 15:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.5**	**HF**	0.1	0.1	SU			11/15/23 10:21	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.296**		0.191	0.193	1.00	0.263	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.7*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.252	U	0.262	0.263	1.00	0.423	pCi/L	11/15/23 06:57	12/13/23 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.7*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Client Sample ID: FD-PZ-1-110723
Date Collected: 11/07/23 12:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-5
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	89.7		30 - 110	11/15/23 06:57	12/13/23 11:38	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.548		0.324	0.326	5.00	0.423	pCi/L		12/18/23 23:24	1

Client Sample ID: CCR-AP-5R-110723

Date Collected: 11/07/23 12:53
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-6

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**570**		5.0	3.6	mg/L			11/13/23 14:45	5
Fluoride	**0.23**		0.10	0.026	mg/L			11/13/23 14:04	1
Sulfate	**3500**		5.0	3.8	mg/L			11/13/23 14:45	5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**14**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 19:32	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:24	1
Arsenic	ND		0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:24	1
Barium	**0.019**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:24	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:24	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:24	1
Calcium	**490**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:24	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:24	1
Cobalt	ND		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:24	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:24	1
Lithium	**0.014**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:24	1
Molybdenum	**0.14**		0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:24	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:24	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:24	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**6100**		40	40	mg/L			11/14/23 15:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.3**	**HF**	0.1	0.1	SU			11/15/23 10:31	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0513	U	0.162	0.162	1.00	0.349	pCi/L	11/15/23 07:01	12/15/23 21:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*30 - 110*	*11/15/23 07:01*	*12/15/23 21:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.431	U	0.364	0.366	1.00	0.569	pCi/L	11/15/23 07:23	12/15/23 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*30 - 110*	*11/15/23 07:23*	*12/15/23 11:51*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: CCR-AP-5R-110723
Date Collected: 11/07/23 12:53
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-6
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*75.1*		*30 - 110*	*11/15/23 07:23*	*12/15/23 11:51*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.380	U	0.398	0.400	5.00	0.569	pCi/L		12/18/23 23:24	1

Client Sample ID: CCR-AP-2I-110723

Date Collected: 11/07/23 15:22
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-7

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100		1.0	0.71	mg/L			11/13/23 21:37	1
Fluoride	1.0		0.10	0.026	mg/L			11/13/23 21:37	1
Sulfate	1.5		1.0	0.76	mg/L			11/13/23 21:37	1

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.2	B	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 20:08	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:39	1
Arsenic	0.00089	J	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:39	1
Barium	0.11	^5+	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:39	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:39	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:39	1
Calcium	11		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:39	1
Chromium	0.0023		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:39	1
Cobalt	0.00078		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:39	1
Lead	0.00080	J	0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:39	1
Lithium	0.021		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:39	1
Molybdenum	0.0013	J	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:39	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:39	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:39	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	720		10	10	mg/L			11/14/23 15:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.9	HF	0.1	0.1	SU			11/15/23 10:40	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.809		0.314	0.322	1.00	0.342	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.269	U	0.387	0.388	1.00	0.652	pCi/L	11/15/23 06:57	12/13/23 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Client Sample ID: CCR-AP-2I-110723

Date Collected: 11/07/23 15:22
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-7

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*89.3*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.08**		0.498	0.504	5.00	0.652	pCi/L		12/18/23 23:24	1

Client Sample ID: CCR-AP-11-110723

Date Collected: 11/07/23 15:55
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-8

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55**		1.0	0.71	mg/L			11/16/23 11:52	1
Fluoride	**0.13**		0.10	0.026	mg/L			11/13/23 22:32	1
Sulfate	**130**		1.0	0.76	mg/L			11/13/23 22:32	1

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.31**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 20:13	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:42	1
Arsenic	**0.00030**	**J**	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:42	1
Barium	**0.063**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:42	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:42	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:42	1
Calcium	**120**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:42	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:42	1
Cobalt	ND		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:42	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:42	1
Lithium	**0.0058**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:42	1
Molybdenum	**0.00080**	**J**	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:42	1
Selenium	**0.0050**		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:42	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:42	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**640**		10	10	mg/L			11/14/23 15:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.1**	**HF**	0.1	0.1	SU			11/15/23 10:45	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.145	U	0.170	0.171	1.00	0.279	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.545**		0.292	0.296	1.00	0.408	pCi/L	11/15/23 06:57	12/13/23 11:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:37*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: CCR-AP-11-110723
Date Collected: 11/07/23 15:55
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-8
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	95.0		30 - 110	11/15/23 06:57	12/13/23 11:37	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.690		0.338	0.342	5.00	0.408	pCi/L		12/18/23 23:24	1

Client Sample ID: DUP-1-110823

Date Collected: 11/08/23 00:00
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-9

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		2.5	1.8	mg/L			11/13/23 20:41	2.5
Fluoride	**0.22**	**J**	0.25	0.065	mg/L			11/13/23 20:41	2.5
Sulfate	**1100**		2.5	1.9	mg/L			11/13/23 20:41	2.5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.84**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 20:18	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:45	1
Arsenic	**0.0010**		0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:45	1
Barium	**0.035**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:45	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:45	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:45	1
Calcium	**330**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:45	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:45	1
Cobalt	**0.0010**		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:45	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:45	1
Lithium	**0.016**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:45	1
Molybdenum	**0.00073**	**J**	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:45	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:45	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:45	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2300**		20	20	mg/L			11/14/23 18:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.0**	**HF**	0.1	0.1	SU			11/15/23 10:50	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.297**		0.203	0.204	1.00	0.289	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.721**		0.341	0.347	1.00	0.462	pCi/L	11/15/23 06:57	12/13/23 11:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:37*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: DUP-1-110823
Date Collected: 11/08/23 00:00
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-9
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	89.7		30 - 110	11/15/23 06:57	12/13/23 11:37	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.02		0.397	0.403	5.00	0.462	pCi/L		12/20/23 10:40	1

Client Sample ID: FD-PZ-2-110823

Date Collected: 11/08/23 08:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-10

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.8**		1.0	0.71	mg/L			11/13/23 21:50	1
Fluoride	**0.15**		0.10	0.026	mg/L			11/13/23 21:50	1
Sulfate	**8.5**		1.0	0.76	mg/L			11/13/23 21:50	1

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.069**	**J B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 20:24	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:48	1
Arsenic	**0.0018**		0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:48	1
Barium	**0.16**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:48	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:48	1
Cadmium	**0.00032**	**J ^5+**	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:48	1
Calcium	**110**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:48	1
Chromium	**0.0052**		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:48	1
Cobalt	**0.0039**		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:48	1
Lead	**0.0028**		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:48	1
Lithium	**0.0080**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:48	1
Molybdenum	**0.0012**	**J**	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:48	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:48	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:48	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**470**		10	10	mg/L			11/14/23 18:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.4**	**HF**	0.1	0.1	SU			11/15/23 10:54	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.433**		0.270	0.273	1.00	0.370	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.668	U	0.472	0.476	1.00	0.723	pCi/L	11/15/23 06:57	12/13/23 11:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:37*	*1*

Client Sample ID: FD-PZ-2-110823

Date Collected: 11/08/23 08:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-10

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*91.6*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:37*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.10**		0.544	0.549	5.00	0.723	pCi/L		12/20/23 10:40	1

Client Sample ID: CCR-AP-2R-110823

Date Collected: 11/08/23 09:05
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-11

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**540**		5.0	3.6	mg/L			11/16/23 11:25	5
Fluoride	**0.33**		0.10	0.026	mg/L			11/13/23 17:54	1
Sulfate	**2900**		5.0	3.8	mg/L			11/13/23 18:50	5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**11**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 20:29	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:51	1
Arsenic	**0.00064**	**J**	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:51	1
Barium	**0.063**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:51	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:51	1
Cadmium	**0.00026**	**J ^5+**	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:51	1
Calcium	**410**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:51	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:51	1
Cobalt	**0.0029**		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:51	1
Lead	**0.00046**	**J**	0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:51	1
Lithium	**0.030**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:51	1
Molybdenum	**1.4**		0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:51	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:51	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:51	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**5000**		40	40	mg/L			11/14/23 18:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.2**	**HF**	0.1	0.1	SU			11/15/23 10:59	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.716**		0.247	0.255	1.00	0.262	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*109*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.696**		0.336	0.342	1.00	0.477	pCi/L	11/15/23 06:57	12/13/23 11:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*109*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:37*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: CCR-AP-2R-110823
Date Collected: 11/08/23 09:05
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-11
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*95.7*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:37*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.41**		0.417	0.427	5.00	0.477	pCi/L		12/20/23 10:40	1

Client Sample ID: FB-1-110823

Date Collected: 11/08/23 09:30
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-12

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			11/13/23 16:59	1
Fluoride	ND		0.10	0.026	mg/L			11/13/23 16:59	1
Sulfate	ND		1.0	0.76	mg/L			11/13/23 16:59	1

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.20	0.033	mg/L		11/14/23 09:48	11/20/23 20:34	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:54	1
Arsenic	ND		0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:54	1
Barium	ND	^5+	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:54	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:54	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:54	1
Calcium	ND		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:54	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:54	1
Cobalt	ND		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:54	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:54	1
Lithium	ND		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:54	1
Molybdenum	ND		0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:54	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:54	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:54	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	ND		10	10	mg/L			11/14/23 18:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**5.9**	**HF**	0.1	0.1	SU			11/18/23 15:23	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.347**		0.198	0.200	1.00	0.255	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.253	U	0.273	0.274	1.00	0.444	pCi/L	11/15/23 06:57	12/13/23 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Client Sample ID: FB-1-110823
Date Collected: 11/08/23 09:30
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-12
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*93.1*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.600**		0.337	0.339	5.00	0.444	pCi/L		12/20/23 10:40	1

Client Sample ID: CCR-AP-8-110823

Date Collected: 11/08/23 10:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-13

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		2.5	1.8	mg/L			11/13/23 20:27	2.5
Fluoride	**0.23**	**J**	0.25	0.065	mg/L			11/13/23 20:27	2.5
Sulfate	**1100**		2.5	1.9	mg/L			11/13/23 20:27	2.5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.82**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 20:39	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 16:57	1
Arsenic	**0.00086**	**J**	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 16:57	1
Barium	**0.034**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 16:57	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 16:57	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 16:57	1
Calcium	**330**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 16:57	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 16:57	1
Cobalt	**0.0011**		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 16:57	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 16:57	1
Lithium	**0.016**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 16:57	1
Molybdenum	**0.00082**	**J**	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 16:57	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 16:57	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 16:57	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2300**		20	20	mg/L			11/14/23 18:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.0**	**HF**	0.1	0.1	SU			11/15/23 11:09	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.399**		0.201	0.204	1.00	0.247	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.320	U	0.274	0.275	1.00	0.429	pCi/L	11/15/23 06:57	12/13/23 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: CCR-AP-8-110823
Date Collected: 11/08/23 10:15
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-13
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*93.5*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.719**		0.340	0.342	5.00	0.429	pCi/L		12/20/23 10:40	1

Client Sample ID: CCR-AP-4R-110823

Date Collected: 11/08/23 12:35
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-14

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.9**		1.0	0.71	mg/L			11/16/23 12:06	1
Fluoride	**0.35**		0.10	0.026	mg/L			11/13/23 15:27	1
Sulfate	**57**		1.0	0.76	mg/L			11/13/23 15:27	1

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.099**	**J B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 20:55	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 17:00	1
Arsenic	**0.00030**	**J**	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 17:00	1
Barium	**0.048**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 17:00	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 17:00	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 17:00	1
Calcium	**110**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 17:00	1
Chromium	**0.0020**		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 17:00	1
Cobalt	ND		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 17:00	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 17:00	1
Lithium	ND		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 17:00	1
Molybdenum	**0.0015**	**J**	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 17:00	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 17:00	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 17:00	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**560**		10	10	mg/L			11/14/23 18:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.4**	**HF**	0.1	0.1	SU			11/15/23 11:14	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.333**		0.193	0.196	1.00	0.251	pCi/L	11/15/23 06:24	12/14/23 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.1*		*30 - 110*	*11/15/23 06:24*	*12/14/23 09:07*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.379	U	0.326	0.327	1.00	0.512	pCi/L	11/15/23 06:57	12/13/23 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.1*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Client Sample ID: CCR-AP-4R-110823

Date Collected: 11/08/23 12:35
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-14

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*90.1*		*30 - 110*	*11/15/23 06:57*	*12/13/23 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.712**		0.379	0.381	5.00	0.512	pCi/L		12/20/23 10:40	1

Client Sample ID: CCR-AP-9-110823

Date Collected: 11/08/23 12:55
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-15

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1400**		10	7.1	mg/L			11/13/23 20:55	10
Fluoride	**0.18**		0.10	0.026	mg/L			11/13/23 19:46	1
Sulfate	**5400**		10	7.6	mg/L			11/13/23 20:55	10

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**7.7**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 21:00	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 17:18	1
Arsenic	**0.0058**		0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 17:18	1
Barium	**0.073**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 17:18	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 17:18	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 17:18	1
Calcium	**470**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 17:18	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 17:18	1
Cobalt	**0.0026**		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 17:18	1
Lead	**0.00040**	**J**	0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 17:18	1
Lithium	**0.039**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 17:18	1
Molybdenum	**0.017**		0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 17:18	1
Selenium	**0.0014**	**J**	0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 17:18	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 17:18	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**10000**		100	100	mg/L			11/14/23 18:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.1**	**HF**	0.1	0.1	SU			11/16/23 15:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.393	U	0.305	0.307	1.00	0.442	pCi/L	11/15/23 07:01	12/15/23 21:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.7*		*30 - 110*	*11/15/23 07:01*	*12/15/23 21:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.756	U	0.527	0.531	1.00	0.787	pCi/L	11/15/23 07:23	12/15/23 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.7*		*30 - 110*	*11/15/23 07:23*	*12/15/23 11:51*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: CCR-AP-9-110823
Date Collected: 11/08/23 12:55
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-15
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*76.6*		*30 - 110*	*11/15/23 07:23*	*12/15/23 11:51*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.15**		0.609	0.613	5.00	0.787	pCi/L		12/20/23 10:40	1

Client Sample ID: CCR-AP-10-110823

Date Collected: 11/08/23 11:20
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-16

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77**		2.5	1.8	mg/L			11/13/23 20:13	2.5
Fluoride	**0.39**		0.25	0.065	mg/L			11/13/23 20:13	2.5
Sulfate	**1500**		2.5	1.9	mg/L			11/13/23 20:13	2.5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.0**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 21:05	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 17:21	1
Arsenic	**0.00048**	**J**	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 17:21	1
Barium	**0.011**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 17:21	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 17:21	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 17:21	1
Calcium	**240**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 17:21	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 17:21	1
Cobalt	**0.00054**		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 17:21	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 17:21	1
Lithium	**0.0015**	**J**	0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 17:21	1
Molybdenum	**0.0020**	**J**	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 17:21	1
Selenium	**0.023**		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 17:21	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 17:21	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2700**		20	20	mg/L			11/15/23 18:12	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.4**	**HF**	0.1	0.1	SU			11/15/23 11:28	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.245	U	0.214	0.215	1.00	0.324	pCi/L	11/15/23 07:01	12/15/23 21:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*30 - 110*	*11/15/23 07:01*	*12/15/23 21:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.313	U	0.342	0.343	1.00	0.555	pCi/L	11/15/23 07:23	12/15/23 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*30 - 110*	*11/15/23 07:23*	*12/15/23 11:51*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: CCR-AP-10-110823

Date Collected: 11/08/23 11:20
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-16

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	70.7		30 - 110	11/15/23 07:23	12/15/23 11:51	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.558		0.403	0.405	5.00	0.555	pCi/L		12/20/23 10:40	1

Client Sample ID: CCR-AP-1R-110823

Date Collected: 11/08/23 14:00
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-17

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**82**		2.5	1.8	mg/L			11/16/23 11:39	2.5
Fluoride	**0.35**		0.25	0.065	mg/L			11/13/23 19:04	2.5
Sulfate	**380**		2.5	1.9	mg/L			11/13/23 19:04	2.5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.4**	**B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 21:10	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 17:24	1
Arsenic	**0.00036**	**J**	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 17:24	1
Barium	**0.059**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 17:24	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 17:24	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 17:24	1
Calcium	**85**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 17:24	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 17:24	1
Cobalt	ND		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 17:24	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 17:24	1
Lithium	**0.0018**	**J**	0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 17:24	1
Molybdenum	**0.0043**	**J**	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 17:24	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 17:24	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 17:24	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 17:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1200**		10	10	mg/L			11/15/23 18:12	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.3**	**HF**	0.1	0.1	SU			11/15/23 11:37	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.499**		0.255	0.259	1.00	0.312	pCi/L	11/15/23 07:01	12/15/23 21:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.2*		*30 - 110*	*11/15/23 07:01*	*12/15/23 21:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.905**		0.411	0.419	1.00	0.533	pCi/L	11/15/23 07:23	12/15/23 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.2*		*30 - 110*	*11/15/23 07:23*	*12/15/23 11:51*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165101-1
SDG: Ash Pond

Client Sample ID: CCR-AP-1R-110823

Date Collected: 11/08/23 14:00
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-17

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*75.5*		*30 - 110*	*11/15/23 07:23*	*12/15/23 11:51*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.40**		0.484	0.493	5.00	0.533	pCi/L		12/20/23 10:40	1

Client Sample ID: CCR-BK-1R-110823

Date Collected: 11/08/23 15:20
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-18

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10**		1.0	0.71	mg/L			11/16/23 03:37	1
Fluoride	**0.17**		0.10	0.026	mg/L			11/13/23 15:41	1
Sulfate	**37**		1.0	0.76	mg/L			11/13/23 15:41	1

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.035**	**J B**	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 21:16	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 17:27	1
Arsenic	**0.00041**	**J**	0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 17:27	1
Barium	**0.087**	**^5+**	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 17:27	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 17:27	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 17:27	1
Calcium	**46**		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 17:27	1
Chromium	**0.0016**	**J**	0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 17:27	1
Cobalt	ND		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 17:27	1
Lead	**0.00041**	**J**	0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 17:27	1
Lithium	**0.011**		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 17:27	1
Molybdenum	**0.0017**	**J**	0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 17:27	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 17:27	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 17:27	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 17:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**290**		10	10	mg/L			11/15/23 18:12	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.3**	**HF**	0.1	0.1	SU			11/15/23 11:43	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.679**		0.293	0.299	1.00	0.322	pCi/L	11/15/23 07:01	12/15/23 21:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.0*		*30 - 110*	*11/15/23 07:01*	*12/15/23 21:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.280	U	0.378	0.379	1.00	0.633	pCi/L	11/15/23 07:23	12/15/23 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.0*		*30 - 110*	*11/15/23 07:23*	*12/15/23 11:51*	*1*

Client Sample ID: CCR-BK-1R-110823

Date Collected: 11/08/23 15:20
Date Received: 11/09/23 09:30

Lab Sample ID: 180-165101-18

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*75.5*		*30 - 110*	*11/15/23 07:23*	*12/15/23 11:51*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.959**		0.478	0.483	5.00	0.633	pCi/L		12/20/23 10:40	1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-451736/6
Matrix: Water
Analysis Batch: 451736

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			11/13/23 12:11	1
Fluoride	ND		0.10	0.026	mg/L			11/13/23 12:11	1
Sulfate	ND		1.0	0.76	mg/L			11/13/23 12:11	1

Lab Sample ID: LCS 180-451736/7
Matrix: Water
Analysis Batch: 451736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.1		mg/L		102	80 - 120
Fluoride	2.50	2.45		mg/L		98	80 - 120
Sulfate	50.0	47.2		mg/L		94	80 - 120

Lab Sample ID: 180-165101-6 MS
Matrix: Water
Analysis Batch: 451736

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	570		250	814		mg/L		100	80 - 120
Fluoride	0.29	J	12.5	12.9		mg/L		101	80 - 120
Sulfate	3500		250	3610	4	mg/L		37	80 - 120

Lab Sample ID: 180-165101-6 MSD
Matrix: Water
Analysis Batch: 451736

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	570		250	801		mg/L		94	80 - 120	2	15
Fluoride	0.29	J	12.5	12.8		mg/L		100	80 - 120	1	15
Sulfate	3500		250	3570	4	mg/L		20	80 - 120	1	15

Lab Sample ID: MB 180-452000/36
Matrix: Water
Analysis Batch: 452000

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			11/16/23 00:22	1
Fluoride	ND		0.10	0.026	mg/L			11/16/23 00:22	1
Sulfate	ND		1.0	0.76	mg/L			11/16/23 00:22	1

Lab Sample ID: LCS 180-452000/37
Matrix: Water
Analysis Batch: 452000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	53.0		mg/L		106	80 - 120
Fluoride	2.50	2.50		mg/L		100	80 - 120
Sulfate	50.0	49.5		mg/L		99	80 - 120

Method: EPA 6010D - Metals (ICP)

Lab Sample ID: MB 180-451849/1-A
Matrix: Water
Analysis Batch: 452510

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 451849

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.150	J	0.20	0.033	mg/L		11/14/23 09:48	11/20/23 18:56	1

Lab Sample ID: LCS 180-451849/2-A
Matrix: Water
Analysis Batch: 452510

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 451849

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.25	1.31		mg/L		104	80 - 120

Lab Sample ID: 180-165101-6 MS
Matrix: Water
Analysis Batch: 452510

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total Recoverable
Prep Batch: 451849

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	14	B	1.25	14.9	4	mg/L		97	75 - 125

Lab Sample ID: 180-165101-6 MSD
Matrix: Water
Analysis Batch: 452510

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total Recoverable
Prep Batch: 451849

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	14	B	1.25	14.8	4	mg/L		93	75 - 125	0	20

Method: EPA 6020A - Metals (ICP/MS)

Lab Sample ID: MB 180-451850/1-A
Matrix: Water
Analysis Batch: 452225

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 451850

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/14/23 09:48	11/16/23 15:48	1
Arsenic	ND		0.0010	0.00028	mg/L		11/14/23 09:48	11/16/23 15:48	1
Barium	ND	^5+	0.010	0.0031	mg/L		11/14/23 09:48	11/16/23 15:48	1
Beryllium	ND		0.0010	0.00027	mg/L		11/14/23 09:48	11/16/23 15:48	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/14/23 09:48	11/16/23 15:48	1
Calcium	ND		0.50	0.13	mg/L		11/14/23 09:48	11/16/23 15:48	1
Chromium	ND		0.0020	0.0015	mg/L		11/14/23 09:48	11/16/23 15:48	1
Cobalt	ND		0.00050	0.00026	mg/L		11/14/23 09:48	11/16/23 15:48	1
Lead	ND		0.0010	0.00038	mg/L		11/14/23 09:48	11/16/23 15:48	1
Lithium	ND		0.0050	0.0013	mg/L		11/14/23 09:48	11/16/23 15:48	1
Molybdenum	ND		0.0050	0.00061	mg/L		11/14/23 09:48	11/16/23 15:48	1
Selenium	ND		0.0050	0.00074	mg/L		11/14/23 09:48	11/16/23 15:48	1
Thallium	ND		0.0010	0.00047	mg/L		11/14/23 09:48	11/16/23 15:48	1

Lab Sample ID: LCS 180-451850/2-A ^5
Matrix: Water
Analysis Batch: 452225

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 451850

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.250	0.262	^5+	mg/L		105	80 - 120

Method: EPA 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-451850/2-A ^5
Matrix: Water
Analysis Batch: 452225

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 451850

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			1.00	0.947		mg/L		95	80 - 120		
Barium			1.00	0.885	^5+	mg/L		88	80 - 120		
Beryllium			0.500	0.535		mg/L		107	80 - 120		
Cadmium			0.500	0.513	^5+	mg/L		103	80 - 120		
Calcium			25.0	28.3		mg/L		113	80 - 120		
Chromium			0.500	0.506		mg/L		101	80 - 120		
Cobalt			0.500	0.498		mg/L		100	80 - 120		
Lead			0.500	0.511		mg/L		102	80 - 120		
Lithium			0.500	0.509		mg/L		102	80 - 120		
Molybdenum			0.500	0.531		mg/L		106	80 - 120		
Selenium			1.00	1.04		mg/L		104	80 - 120		
Thallium			1.00	1.05		mg/L		105	80 - 120		

Lab Sample ID: 180-165101-6 MS
Matrix: Water
Analysis Batch: 452225

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total Recoverable
Prep Batch: 451850

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND	^5+	0.250	0.270	^5+	mg/L		108	75 - 125		
Arsenic	ND		1.00	0.964		mg/L		96	75 - 125		
Barium	0.019	^5+	1.00	0.947	^5+	mg/L		93	75 - 125		
Beryllium	ND		0.500	0.527		mg/L		105	75 - 125		
Cadmium	ND	^5+	0.500	0.515	^5+	mg/L		103	75 - 125		
Calcium	490		25.0	530	4	mg/L		164	75 - 125		
Chromium	ND		0.500	0.503		mg/L		101	75 - 125		
Cobalt	ND		0.500	0.509		mg/L		102	75 - 125		
Lead	ND		0.500	0.528		mg/L		106	75 - 125		
Lithium	0.014		0.500	0.533		mg/L		104	75 - 125		
Molybdenum	0.14		0.500	0.699		mg/L		112	75 - 125		
Selenium	ND		1.00	1.06		mg/L		106	75 - 125		
Thallium	ND		1.00	1.06		mg/L		106	75 - 125		

Lab Sample ID: 180-165101-6 MSD
Matrix: Water
Analysis Batch: 452225

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total Recoverable
Prep Batch: 451850

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	^5+	0.250	0.273	^5+	mg/L		109	75 - 125	1	20
Arsenic	ND		1.00	0.955		mg/L		96	75 - 125	1	20
Barium	0.019	^5+	1.00	0.955	^5+	mg/L		94	75 - 125	1	20
Beryllium	ND		0.500	0.523		mg/L		105	75 - 125	1	20
Cadmium	ND	^5+	0.500	0.519	^5+	mg/L		104	75 - 125	1	20
Calcium	490		25.0	531	4	mg/L		166	75 - 125	0	20
Chromium	ND		0.500	0.507		mg/L		101	75 - 125	1	20
Cobalt	ND		0.500	0.506		mg/L		101	75 - 125	1	20
Lead	ND		0.500	0.525		mg/L		105	75 - 125	1	20
Lithium	0.014		0.500	0.531		mg/L		103	75 - 125	0	20
Molybdenum	0.14		0.500	0.695		mg/L		111	75 - 125	1	20
Selenium	ND		1.00	1.07		mg/L		107	75 - 125	2	20

Method: EPA 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-165101-6 MSD
Matrix: Water
Analysis Batch: 452225

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total Recoverable
Prep Batch: 451850

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	ND		1.00	1.06		mg/L		106	75 - 125	1	20

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-452479/1-A
Matrix: Water
Analysis Batch: 452853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/27/23 16:36	1

Lab Sample ID: LCS 180-452479/2-A
Matrix: Water
Analysis Batch: 452853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452479

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00250	0.00233		mg/L		93	80 - 120

Lab Sample ID: 180-165101-6 MS
Matrix: Water
Analysis Batch: 452853

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total/NA
Prep Batch: 452479

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00100	0.000821		mg/L		82	75 - 125

Lab Sample ID: 180-165101-6 MSD
Matrix: Water
Analysis Batch: 452853

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total/NA
Prep Batch: 452479

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00100	0.000826		mg/L		83	75 - 125	1	20

Method: EPA 9040C - pH

Lab Sample ID: LCS 180-452044/1
Matrix: Water
Analysis Batch: 452044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: LCS 180-452044/24
Matrix: Water
Analysis Batch: 452044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Method: EPA 9040C - pH (Continued)

Lab Sample ID: 180-165101-6 DU
Matrix: Water
Analysis Batch: 452044

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.3	HF	7.1	HF F3	SU		3	2

Lab Sample ID: 180-165101-16 DU
Matrix: Water
Analysis Batch: 452044

Client Sample ID: CCR-AP-10-110823
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.4	HF	7.6		SU		2	2

Lab Sample ID: LCS 180-452212/1
Matrix: Water
Analysis Batch: 452212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: LCS 180-452358/1
Matrix: Water
Analysis Batch: 452358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: LCS 180-452358/23
Matrix: Water
Analysis Batch: 452358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-451923/1
Matrix: Water
Analysis Batch: 451923

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			11/14/23 15:25	1

Lab Sample ID: LCS 180-451923/2
Matrix: Water
Analysis Batch: 451923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	336	324		mg/L		96	85 - 115

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 180-165101-6 DU
Matrix: Water
Analysis Batch: 451923

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	6100			6210		mg/L				1	10

Lab Sample ID: MB 180-451933/1
Matrix: Water
Analysis Batch: 451933

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			11/14/23 18:03	1

Lab Sample ID: LCS 180-451933/2
Matrix: Water
Analysis Batch: 451933

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			336	322		mg/L		96	85 - 115		

Lab Sample ID: MB 180-452068/1
Matrix: Water
Analysis Batch: 452068

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			11/15/23 18:12	1

Lab Sample ID: LCS 180-452068/2
Matrix: Water
Analysis Batch: 452068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			336	326		mg/L		97	85 - 115		

Lab Sample ID: 180-165101-18 DU
Matrix: Water
Analysis Batch: 452068

Client Sample ID: CCR-BK-1R-110823
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	290			291		mg/L				0.3	10

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-636862/1-A
Matrix: Water
Analysis Batch: 640734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 636862

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1440	U	0.147	0.148	1.00	0.231	pCi/L	11/15/23 06:24	12/14/23 07:21	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*30 - 110*	*11/15/23 06:24*	*12/14/23 07:21*	*1*

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-636862/2-A
Matrix: Water
Analysis Batch: 640734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 636862

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	9.733		1.20	1.00	0.217	pCi/L	86	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.9*		*30 - 110*

Lab Sample ID: MB 160-636867/1-A
Matrix: Water
Analysis Batch: 640846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 636867

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.04021	U	0.140	0.140	1.00	0.306	pCi/L	11/15/23 07:01	12/15/23 21:10	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*11/15/23 07:01*	*12/15/23 21:10*	*1*

Lab Sample ID: LCS 160-636867/2-A
Matrix: Water
Analysis Batch: 640846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 636867

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	9.330		1.21	1.00	0.312	pCi/L	82	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.2*		*30 - 110*

Lab Sample ID: 180-165101-6 DU
Matrix: Water
Analysis Batch: 640846

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total/NA
Prep Batch: 636867

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	-0.0513	U		0.001981	U	0.161	1.00	0.323	pCi/L			0.16	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*96.9*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-636866/1-A
Matrix: Water
Analysis Batch: 640619

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 636866

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2901	U	0.255	0.256	1.00	0.398	pCi/L	11/15/23 06:57	12/13/23 11:31	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110	11/15/23 06:57	12/13/23 11:31	1
Y Carrier	84.1		30 - 110	11/15/23 06:57	12/13/23 11:31	1

Lab Sample ID: LCS 160-636866/2-A
Matrix: Water
Analysis Batch: 640619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 636866

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			7.65	7.195		1.04	1.00	0.421	pCi/L	94	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.9		30 - 110
Y Carrier	84.1		30 - 110

Lab Sample ID: MB 160-636989/1-A
Matrix: Water
Analysis Batch: 640847

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 636989

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.07796	U	0.234	0.234	1.00	0.424	pCi/L	11/15/23 07:23	12/15/23 11:50	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	102		30 - 110	11/15/23 07:23	12/15/23 11:50	1
Y Carrier	80.4		30 - 110	11/15/23 07:23	12/15/23 11:50	1

Lab Sample ID: LCS 160-636989/2-A
Matrix: Water
Analysis Batch: 640847

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 636989

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			7.64	7.318		1.08	1.00	0.504	pCi/L	96	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	97.2		30 - 110
Y Carrier	77.8		30 - 110

Lab Sample ID: 180-165101-6 DU
Matrix: Water
Analysis Batch: 640847

Client Sample ID: CCR-AP-5R-110723
Prep Type: Total/NA
Prep Batch: 636989

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.431	U		0.5843	U	0.402	1.00	0.604	pCi/L			0.20	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.9		30 - 110
Y Carrier	79.3		30 - 110

HPLC/IC

Analysis Batch: 451736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total/NA	Water	EPA 9056A	
180-165101-1	MH-1-110723	Total/NA	Water	EPA 9056A	
180-165101-2	CCR-AP-3I-110723	Total/NA	Water	EPA 9056A	
180-165101-3	MH-2-110723	Total/NA	Water	EPA 9056A	
180-165101-3	MH-2-110723	Total/NA	Water	EPA 9056A	
180-165101-4	CCR-AP-3R-110723	Total/NA	Water	EPA 9056A	
180-165101-4	CCR-AP-3R-110723	Total/NA	Water	EPA 9056A	
180-165101-5	FD-PZ-1-110723	Total/NA	Water	EPA 9056A	
180-165101-5	FD-PZ-1-110723	Total/NA	Water	EPA 9056A	
180-165101-6	CCR-AP-5R-110723	Total/NA	Water	EPA 9056A	
180-165101-6	CCR-AP-5R-110723	Total/NA	Water	EPA 9056A	
180-165101-7	CCR-AP-2I-110723	Total/NA	Water	EPA 9056A	
180-165101-8	CCR-AP-11-110723	Total/NA	Water	EPA 9056A	
180-165101-9	DUP-1-110823	Total/NA	Water	EPA 9056A	
180-165101-10	FD-PZ-2-110823	Total/NA	Water	EPA 9056A	
180-165101-11	CCR-AP-2R-110823	Total/NA	Water	EPA 9056A	
180-165101-11	CCR-AP-2R-110823	Total/NA	Water	EPA 9056A	
180-165101-12	FB-1-110823	Total/NA	Water	EPA 9056A	
180-165101-13	CCR-AP-8-110823	Total/NA	Water	EPA 9056A	
180-165101-14	CCR-AP-4R-110823	Total/NA	Water	EPA 9056A	
180-165101-15	CCR-AP-9-110823	Total/NA	Water	EPA 9056A	
180-165101-15	CCR-AP-9-110823	Total/NA	Water	EPA 9056A	
180-165101-16	CCR-AP-10-110823	Total/NA	Water	EPA 9056A	
180-165101-17	CCR-AP-1R-110823	Total/NA	Water	EPA 9056A	
180-165101-18	CCR-BK-1R-110823	Total/NA	Water	EPA 9056A	
MB 180-451736/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-451736/7	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-165101-6 MS	CCR-AP-5R-110723	Total/NA	Water	EPA 9056A	
180-165101-6 MSD	CCR-AP-5R-110723	Total/NA	Water	EPA 9056A	

Analysis Batch: 452000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-3	MH-2-110723	Total/NA	Water	EPA 9056A	
180-165101-4	CCR-AP-3R-110723	Total/NA	Water	EPA 9056A	
180-165101-5	FD-PZ-1-110723	Total/NA	Water	EPA 9056A	
180-165101-8	CCR-AP-11-110723	Total/NA	Water	EPA 9056A	
180-165101-11	CCR-AP-2R-110823	Total/NA	Water	EPA 9056A	
180-165101-14	CCR-AP-4R-110823	Total/NA	Water	EPA 9056A	
180-165101-17	CCR-AP-1R-110823	Total/NA	Water	EPA 9056A	
180-165101-18	CCR-BK-1R-110823	Total/NA	Water	EPA 9056A	
MB 180-452000/36	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-452000/37	Lab Control Sample	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 451849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total Recoverable	Water	3005A	
180-165101-2	CCR-AP-3I-110723	Total Recoverable	Water	3005A	
180-165101-3	MH-2-110723	Total Recoverable	Water	3005A	
180-165101-4	CCR-AP-3R-110723	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 451849 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-5	FD-PZ-1-110723	Total Recoverable	Water	3005A	
180-165101-6	CCR-AP-5R-110723	Total Recoverable	Water	3005A	
180-165101-7	CCR-AP-2I-110723	Total Recoverable	Water	3005A	
180-165101-8	CCR-AP-11-110723	Total Recoverable	Water	3005A	
180-165101-9	DUP-1-110823	Total Recoverable	Water	3005A	
180-165101-10	FD-PZ-2-110823	Total Recoverable	Water	3005A	
180-165101-11	CCR-AP-2R-110823	Total Recoverable	Water	3005A	
180-165101-12	FB-1-110823	Total Recoverable	Water	3005A	
180-165101-13	CCR-AP-8-110823	Total Recoverable	Water	3005A	
180-165101-14	CCR-AP-4R-110823	Total Recoverable	Water	3005A	
180-165101-15	CCR-AP-9-110823	Total Recoverable	Water	3005A	
180-165101-16	CCR-AP-10-110823	Total Recoverable	Water	3005A	
180-165101-17	CCR-AP-1R-110823	Total Recoverable	Water	3005A	
180-165101-18	CCR-BK-1R-110823	Total Recoverable	Water	3005A	
MB 180-451849/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-451849/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-165101-6 MS	CCR-AP-5R-110723	Total Recoverable	Water	3005A	
180-165101-6 MSD	CCR-AP-5R-110723	Total Recoverable	Water	3005A	

Prep Batch: 451850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total Recoverable	Water	3005A	
180-165101-2	CCR-AP-3I-110723	Total Recoverable	Water	3005A	
180-165101-3	MH-2-110723	Total Recoverable	Water	3005A	
180-165101-4	CCR-AP-3R-110723	Total Recoverable	Water	3005A	
180-165101-5	FD-PZ-1-110723	Total Recoverable	Water	3005A	
180-165101-6	CCR-AP-5R-110723	Total Recoverable	Water	3005A	
180-165101-7	CCR-AP-2I-110723	Total Recoverable	Water	3005A	
180-165101-8	CCR-AP-11-110723	Total Recoverable	Water	3005A	
180-165101-9	DUP-1-110823	Total Recoverable	Water	3005A	
180-165101-10	FD-PZ-2-110823	Total Recoverable	Water	3005A	
180-165101-11	CCR-AP-2R-110823	Total Recoverable	Water	3005A	
180-165101-12	FB-1-110823	Total Recoverable	Water	3005A	
180-165101-13	CCR-AP-8-110823	Total Recoverable	Water	3005A	
180-165101-14	CCR-AP-4R-110823	Total Recoverable	Water	3005A	
180-165101-15	CCR-AP-9-110823	Total Recoverable	Water	3005A	
180-165101-16	CCR-AP-10-110823	Total Recoverable	Water	3005A	
180-165101-17	CCR-AP-1R-110823	Total Recoverable	Water	3005A	
180-165101-18	CCR-BK-1R-110823	Total Recoverable	Water	3005A	
MB 180-451850/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-451850/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
180-165101-6 MS	CCR-AP-5R-110723	Total Recoverable	Water	3005A	
180-165101-6 MSD	CCR-AP-5R-110723	Total Recoverable	Water	3005A	

Analysis Batch: 452225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total Recoverable	Water	EPA 6020A	451850
180-165101-2	CCR-AP-3I-110723	Total Recoverable	Water	EPA 6020A	451850
180-165101-3	MH-2-110723	Total Recoverable	Water	EPA 6020A	451850
180-165101-4	CCR-AP-3R-110723	Total Recoverable	Water	EPA 6020A	451850
180-165101-5	FD-PZ-1-110723	Total Recoverable	Water	EPA 6020A	451850

Metals (Continued)

Analysis Batch: 452225 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-6	CCR-AP-5R-110723	Total Recoverable	Water	EPA 6020A	451850
180-165101-7	CCR-AP-2I-110723	Total Recoverable	Water	EPA 6020A	451850
180-165101-8	CCR-AP-11-110723	Total Recoverable	Water	EPA 6020A	451850
180-165101-9	DUP-1-110823	Total Recoverable	Water	EPA 6020A	451850
180-165101-10	FD-PZ-2-110823	Total Recoverable	Water	EPA 6020A	451850
180-165101-11	CCR-AP-2R-110823	Total Recoverable	Water	EPA 6020A	451850
180-165101-12	FB-1-110823	Total Recoverable	Water	EPA 6020A	451850
180-165101-13	CCR-AP-8-110823	Total Recoverable	Water	EPA 6020A	451850
180-165101-14	CCR-AP-4R-110823	Total Recoverable	Water	EPA 6020A	451850
180-165101-15	CCR-AP-9-110823	Total Recoverable	Water	EPA 6020A	451850
180-165101-16	CCR-AP-10-110823	Total Recoverable	Water	EPA 6020A	451850
180-165101-17	CCR-AP-1R-110823	Total Recoverable	Water	EPA 6020A	451850
180-165101-18	CCR-BK-1R-110823	Total Recoverable	Water	EPA 6020A	451850
MB 180-451850/1-A	Method Blank	Total Recoverable	Water	EPA 6020A	451850
LCS 180-451850/2-A ^5	Lab Control Sample	Total Recoverable	Water	EPA 6020A	451850
180-165101-6 MS	CCR-AP-5R-110723	Total Recoverable	Water	EPA 6020A	451850
180-165101-6 MSD	CCR-AP-5R-110723	Total Recoverable	Water	EPA 6020A	451850

Prep Batch: 452479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total/NA	Water	7470A	
180-165101-2	CCR-AP-3I-110723	Total/NA	Water	7470A	
180-165101-3	MH-2-110723	Total/NA	Water	7470A	
180-165101-4	CCR-AP-3R-110723	Total/NA	Water	7470A	
180-165101-5	FD-PZ-1-110723	Total/NA	Water	7470A	
180-165101-6	CCR-AP-5R-110723	Total/NA	Water	7470A	
180-165101-7	CCR-AP-2I-110723	Total/NA	Water	7470A	
180-165101-8	CCR-AP-11-110723	Total/NA	Water	7470A	
180-165101-9	DUP-1-110823	Total/NA	Water	7470A	
180-165101-10	FD-PZ-2-110823	Total/NA	Water	7470A	
180-165101-11	CCR-AP-2R-110823	Total/NA	Water	7470A	
180-165101-12	FB-1-110823	Total/NA	Water	7470A	
180-165101-13	CCR-AP-8-110823	Total/NA	Water	7470A	
180-165101-14	CCR-AP-4R-110823	Total/NA	Water	7470A	
180-165101-15	CCR-AP-9-110823	Total/NA	Water	7470A	
180-165101-16	CCR-AP-10-110823	Total/NA	Water	7470A	
180-165101-17	CCR-AP-1R-110823	Total/NA	Water	7470A	
180-165101-18	CCR-BK-1R-110823	Total/NA	Water	7470A	
MB 180-452479/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-452479/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-165101-6 MS	CCR-AP-5R-110723	Total/NA	Water	7470A	
180-165101-6 MSD	CCR-AP-5R-110723	Total/NA	Water	7470A	

Analysis Batch: 452510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total Recoverable	Water	EPA 6010D	451849
180-165101-2	CCR-AP-3I-110723	Total Recoverable	Water	EPA 6010D	451849
180-165101-3	MH-2-110723	Total Recoverable	Water	EPA 6010D	451849
180-165101-4	CCR-AP-3R-110723	Total Recoverable	Water	EPA 6010D	451849
180-165101-5	FD-PZ-1-110723	Total Recoverable	Water	EPA 6010D	451849
180-165101-6	CCR-AP-5R-110723	Total Recoverable	Water	EPA 6010D	451849

Metals (Continued)

Analysis Batch: 452510 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-7	CCR-AP-2I-110723	Total Recoverable	Water	EPA 6010D	451849
180-165101-8	CCR-AP-11-110723	Total Recoverable	Water	EPA 6010D	451849
180-165101-9	DUP-1-110823	Total Recoverable	Water	EPA 6010D	451849
180-165101-10	FD-PZ-2-110823	Total Recoverable	Water	EPA 6010D	451849
180-165101-11	CCR-AP-2R-110823	Total Recoverable	Water	EPA 6010D	451849
180-165101-12	FB-1-110823	Total Recoverable	Water	EPA 6010D	451849
180-165101-13	CCR-AP-8-110823	Total Recoverable	Water	EPA 6010D	451849
180-165101-14	CCR-AP-4R-110823	Total Recoverable	Water	EPA 6010D	451849
180-165101-15	CCR-AP-9-110823	Total Recoverable	Water	EPA 6010D	451849
180-165101-16	CCR-AP-10-110823	Total Recoverable	Water	EPA 6010D	451849
180-165101-17	CCR-AP-1R-110823	Total Recoverable	Water	EPA 6010D	451849
180-165101-18	CCR-BK-1R-110823	Total Recoverable	Water	EPA 6010D	451849
MB 180-451849/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	451849
LCS 180-451849/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	451849
180-165101-6 MS	CCR-AP-5R-110723	Total Recoverable	Water	EPA 6010D	451849
180-165101-6 MSD	CCR-AP-5R-110723	Total Recoverable	Water	EPA 6010D	451849

Analysis Batch: 452853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total/NA	Water	EPA 7470A	452479
180-165101-2	CCR-AP-3I-110723	Total/NA	Water	EPA 7470A	452479
180-165101-3	MH-2-110723	Total/NA	Water	EPA 7470A	452479
180-165101-4	CCR-AP-3R-110723	Total/NA	Water	EPA 7470A	452479
180-165101-5	FD-PZ-1-110723	Total/NA	Water	EPA 7470A	452479
180-165101-6	CCR-AP-5R-110723	Total/NA	Water	EPA 7470A	452479
180-165101-7	CCR-AP-2I-110723	Total/NA	Water	EPA 7470A	452479
180-165101-8	CCR-AP-11-110723	Total/NA	Water	EPA 7470A	452479
180-165101-9	DUP-1-110823	Total/NA	Water	EPA 7470A	452479
180-165101-10	FD-PZ-2-110823	Total/NA	Water	EPA 7470A	452479
180-165101-11	CCR-AP-2R-110823	Total/NA	Water	EPA 7470A	452479
180-165101-12	FB-1-110823	Total/NA	Water	EPA 7470A	452479
180-165101-13	CCR-AP-8-110823	Total/NA	Water	EPA 7470A	452479
180-165101-14	CCR-AP-4R-110823	Total/NA	Water	EPA 7470A	452479
180-165101-15	CCR-AP-9-110823	Total/NA	Water	EPA 7470A	452479
180-165101-16	CCR-AP-10-110823	Total/NA	Water	EPA 7470A	452479
180-165101-17	CCR-AP-1R-110823	Total/NA	Water	EPA 7470A	452479
180-165101-18	CCR-BK-1R-110823	Total/NA	Water	EPA 7470A	452479
MB 180-452479/1-A	Method Blank	Total/NA	Water	EPA 7470A	452479
LCS 180-452479/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	452479
180-165101-6 MS	CCR-AP-5R-110723	Total/NA	Water	EPA 7470A	452479
180-165101-6 MSD	CCR-AP-5R-110723	Total/NA	Water	EPA 7470A	452479

General Chemistry

Analysis Batch: 451923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total/NA	Water	SM 2540C	
180-165101-2	CCR-AP-3I-110723	Total/NA	Water	SM 2540C	
180-165101-3	MH-2-110723	Total/NA	Water	SM 2540C	
180-165101-4	CCR-AP-3R-110723	Total/NA	Water	SM 2540C	
180-165101-5	FD-PZ-1-110723	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 451923 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-6	CCR-AP-5R-110723	Total/NA	Water	SM 2540C	
180-165101-7	CCR-AP-2I-110723	Total/NA	Water	SM 2540C	
180-165101-8	CCR-AP-11-110723	Total/NA	Water	SM 2540C	
MB 180-451923/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-451923/2	Lab Control Sample	Total/NA	Water	SM 2540C	
180-165101-6 DU	CCR-AP-5R-110723	Total/NA	Water	SM 2540C	

Analysis Batch: 451933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-9	DUP-1-110823	Total/NA	Water	SM 2540C	
180-165101-10	FD-PZ-2-110823	Total/NA	Water	SM 2540C	
180-165101-11	CCR-AP-2R-110823	Total/NA	Water	SM 2540C	
180-165101-12	FB-1-110823	Total/NA	Water	SM 2540C	
180-165101-13	CCR-AP-8-110823	Total/NA	Water	SM 2540C	
180-165101-14	CCR-AP-4R-110823	Total/NA	Water	SM 2540C	
180-165101-15	CCR-AP-9-110823	Total/NA	Water	SM 2540C	
MB 180-451933/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-451933/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 452044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total/NA	Water	EPA 9040C	
180-165101-2	CCR-AP-3I-110723	Total/NA	Water	EPA 9040C	
180-165101-3	MH-2-110723	Total/NA	Water	EPA 9040C	
180-165101-5	FD-PZ-1-110723	Total/NA	Water	EPA 9040C	
180-165101-6	CCR-AP-5R-110723	Total/NA	Water	EPA 9040C	
180-165101-7	CCR-AP-2I-110723	Total/NA	Water	EPA 9040C	
180-165101-8	CCR-AP-11-110723	Total/NA	Water	EPA 9040C	
180-165101-9	DUP-1-110823	Total/NA	Water	EPA 9040C	
180-165101-10	FD-PZ-2-110823	Total/NA	Water	EPA 9040C	
180-165101-11	CCR-AP-2R-110823	Total/NA	Water	EPA 9040C	
180-165101-13	CCR-AP-8-110823	Total/NA	Water	EPA 9040C	
180-165101-14	CCR-AP-4R-110823	Total/NA	Water	EPA 9040C	
180-165101-16	CCR-AP-10-110823	Total/NA	Water	EPA 9040C	
180-165101-17	CCR-AP-1R-110823	Total/NA	Water	EPA 9040C	
180-165101-18	CCR-BK-1R-110823	Total/NA	Water	EPA 9040C	
LCS 180-452044/1	Lab Control Sample	Total/NA	Water	EPA 9040C	
LCS 180-452044/24	Lab Control Sample	Total/NA	Water	EPA 9040C	
180-165101-6 DU	CCR-AP-5R-110723	Total/NA	Water	EPA 9040C	
180-165101-16 DU	CCR-AP-10-110823	Total/NA	Water	EPA 9040C	

Analysis Batch: 452068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-16	CCR-AP-10-110823	Total/NA	Water	SM 2540C	
180-165101-17	CCR-AP-1R-110823	Total/NA	Water	SM 2540C	
180-165101-18	CCR-BK-1R-110823	Total/NA	Water	SM 2540C	
MB 180-452068/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-452068/2	Lab Control Sample	Total/NA	Water	SM 2540C	
180-165101-18 DU	CCR-BK-1R-110823	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 452212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-15	CCR-AP-9-110823	Total/NA	Water	EPA 9040C	
LCS 180-452212/1	Lab Control Sample	Total/NA	Water	EPA 9040C	

Analysis Batch: 452358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-4	CCR-AP-3R-110723	Total/NA	Water	EPA 9040C	
180-165101-12	FB-1-110823	Total/NA	Water	EPA 9040C	
LCS 180-452358/1	Lab Control Sample	Total/NA	Water	EPA 9040C	
LCS 180-452358/23	Lab Control Sample	Total/NA	Water	EPA 9040C	

Rad

Prep Batch: 636862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total/NA	Water	PrecSep-21	
180-165101-2	CCR-AP-3I-110723	Total/NA	Water	PrecSep-21	
180-165101-3	MH-2-110723	Total/NA	Water	PrecSep-21	
180-165101-4	CCR-AP-3R-110723	Total/NA	Water	PrecSep-21	
180-165101-5	FD-PZ-1-110723	Total/NA	Water	PrecSep-21	
180-165101-7	CCR-AP-2I-110723	Total/NA	Water	PrecSep-21	
180-165101-8	CCR-AP-11-110723	Total/NA	Water	PrecSep-21	
180-165101-9	DUP-1-110823	Total/NA	Water	PrecSep-21	
180-165101-10	FD-PZ-2-110823	Total/NA	Water	PrecSep-21	
180-165101-11	CCR-AP-2R-110823	Total/NA	Water	PrecSep-21	
180-165101-12	FB-1-110823	Total/NA	Water	PrecSep-21	
180-165101-13	CCR-AP-8-110823	Total/NA	Water	PrecSep-21	
180-165101-14	CCR-AP-4R-110823	Total/NA	Water	PrecSep-21	
MB 160-636862/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-636862/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 636866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-1	MH-1-110723	Total/NA	Water	PrecSep_0	
180-165101-2	CCR-AP-3I-110723	Total/NA	Water	PrecSep_0	
180-165101-3	MH-2-110723	Total/NA	Water	PrecSep_0	
180-165101-4	CCR-AP-3R-110723	Total/NA	Water	PrecSep_0	
180-165101-5	FD-PZ-1-110723	Total/NA	Water	PrecSep_0	
180-165101-7	CCR-AP-2I-110723	Total/NA	Water	PrecSep_0	
180-165101-8	CCR-AP-11-110723	Total/NA	Water	PrecSep_0	
180-165101-9	DUP-1-110823	Total/NA	Water	PrecSep_0	
180-165101-10	FD-PZ-2-110823	Total/NA	Water	PrecSep_0	
180-165101-11	CCR-AP-2R-110823	Total/NA	Water	PrecSep_0	
180-165101-12	FB-1-110823	Total/NA	Water	PrecSep_0	
180-165101-13	CCR-AP-8-110823	Total/NA	Water	PrecSep_0	
180-165101-14	CCR-AP-4R-110823	Total/NA	Water	PrecSep_0	
MB 160-636866/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-636866/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 636867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-6	CCR-AP-5R-110723	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 636867 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-15	CCR-AP-9-110823	Total/NA	Water	PrecSep-21	
180-165101-16	CCR-AP-10-110823	Total/NA	Water	PrecSep-21	
180-165101-17	CCR-AP-1R-110823	Total/NA	Water	PrecSep-21	
180-165101-18	CCR-BK-1R-110823	Total/NA	Water	PrecSep-21	
MB 160-636867/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-636867/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
180-165101-6 DU	CCR-AP-5R-110723	Total/NA	Water	PrecSep-21	

Prep Batch: 636989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165101-6	CCR-AP-5R-110723	Total/NA	Water	PrecSep_0	
180-165101-15	CCR-AP-9-110823	Total/NA	Water	PrecSep_0	
180-165101-16	CCR-AP-10-110823	Total/NA	Water	PrecSep_0	
180-165101-17	CCR-AP-1R-110823	Total/NA	Water	PrecSep_0	
180-165101-18	CCR-BK-1R-110823	Total/NA	Water	PrecSep_0	
MB 160-636989/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-636989/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
180-165101-6 DU	CCR-AP-5R-110723	Total/NA	Water	PrecSep_0	

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Chain of Custody Record

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HARRISBURG PA

eurofins Environment Testing

Client Information	Sampler: Francis Reed	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-96134-15023.1
Client Contact: Britton Hundley	Phone: (614) 288-8619	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: IN	Page: Page 1 of 4
Company: Haley & Aldrich, Inc.	PWSID:	Analysis Requested		Job #: 0129420
Address: 400 Augusta Street Suite 100	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
City: Greenville	TAT Requested (days): STD			
State, Zip: SC, 29601	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0129420-037-001-01			Other:
Email: BHundley@haleyaldrich.com	WO #: 0129420-037-001-01			
Project Name: AB Brown Genertating Station	Project #: 18016014			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9040C, 9056A_ORGFM_28D	6020A, 7470A	2540C_Calcd - Local Method	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Ra226Ra228_GFPC - Local Method	6010D - (MOD) Boron	Special Instructions/Note:
MH-1-110723	11/07/23	09:15	G	Water	N	N	X	X	X	X	X	X	X	
CCR-AP-3I-110723	11/07/23	09:47	G	Water	N	N	X	X	X	X	X	X	X	
MH-2-110723	11/07/23	09:55	G	Water	N	N	X	X	X	X	X	X	X	
CCR-AP-3R-110723	11/07/23	11:15	G	Water	N	N	X	X	X	X	X	X	X	
FD-PZ-1-110723	11/07/23	12:15	G	Water	N	N	X	X	X	X	X	X	X	
CCR-AP-5R-110723	11/07/23	12:53	G	Water	N	Y	X	X	X	X	X	X	X	MS/MSD
CCR-AP-2I-110723	11/07/23	15:22	G	Water	N	N	X	X	X	X	X	X	X	
CCR-AP-11-110723	11/07/23	15:55	G	Water	N	N	X	X	X	X	X	X	X	
DUP-1-110823	11/08/23	—	G	Water	N	N	X	X	X	X	X	X	X	Field Dup
FD-PZ-2110823	11/08/23	08:15	G	Water	N	N	X	X	X	X	X	X	X	
CCR-AP-2R-110823	11/08/23	09:05	G	Water	N	N	X	X	X	X	X	X	X	

180-165101 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Francis Reed	11/08/23 18:00	H&A		11/09/23 0930	EP:HME
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver 06/08/2021

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

370472
HARRISBURG PA

eurofins | Environment Testing

Client Information	Sampler: Francis Reed	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-96134-15023.2
Client Contact: Britton Hundley	Phone: (614) 288-8619	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: IN	Page: Page 2 of 4
Company: Haley & Aldrich, Inc.	PWSID:			Job #: 0129420
Address: 400 Augusta Street Suite 100	Due Date Requested:			
City: Greenville	TAT Requested (days): STD			
State, Zip: SC, 29601	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0129420-037-001-01			
Email: BHundley@haleyaldrich.com	WO #: 0129420-037-001-01			
Project Name: AB Brown Genertating Station	Project #: 18016014			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9040C, 9056A_ORGFM_28D	6020A, 7470A	2540C_Calcd - Local Method	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Ra226Ra228_GFPC - Local Method	6010D - (MOD) Boron							Special Instructions/Note:
			Preservation Code:		N	N	B	N	B	B	B									
FB-1-110823	11/08/23	09:30	G	Water	N	N	X	X	X	X	X	X	X							Field Blank
CCR-AP-8-110823	11/08/23	10:15	G	Water	N	N	X	X	X	X	X	X	X							
CCR-AP-9R-110823	11/08/23	12:35	G	Water	N	N	X	X	X	X	X	X	X							
CCR-AP-9-110823	11/08/23	12:55	G	Water	N	N	X	X	X	X	X	X	X							
CCR-AP-10-110823	11/08/23	11:20	G	Water	N	N	X	X	X	X	X	X	X							
CCR-AP-1R-110823	11/08/23	14:00	G	Water	N	N	X	X	X	X	X	X	X							
CCR-BK-1R-110823	11/08/23	15:20	G	Water	N	N	X	X	X	X	X	X	X							
FR			FR	Water										FR						FR
				Water																
				Water																
				Water																

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

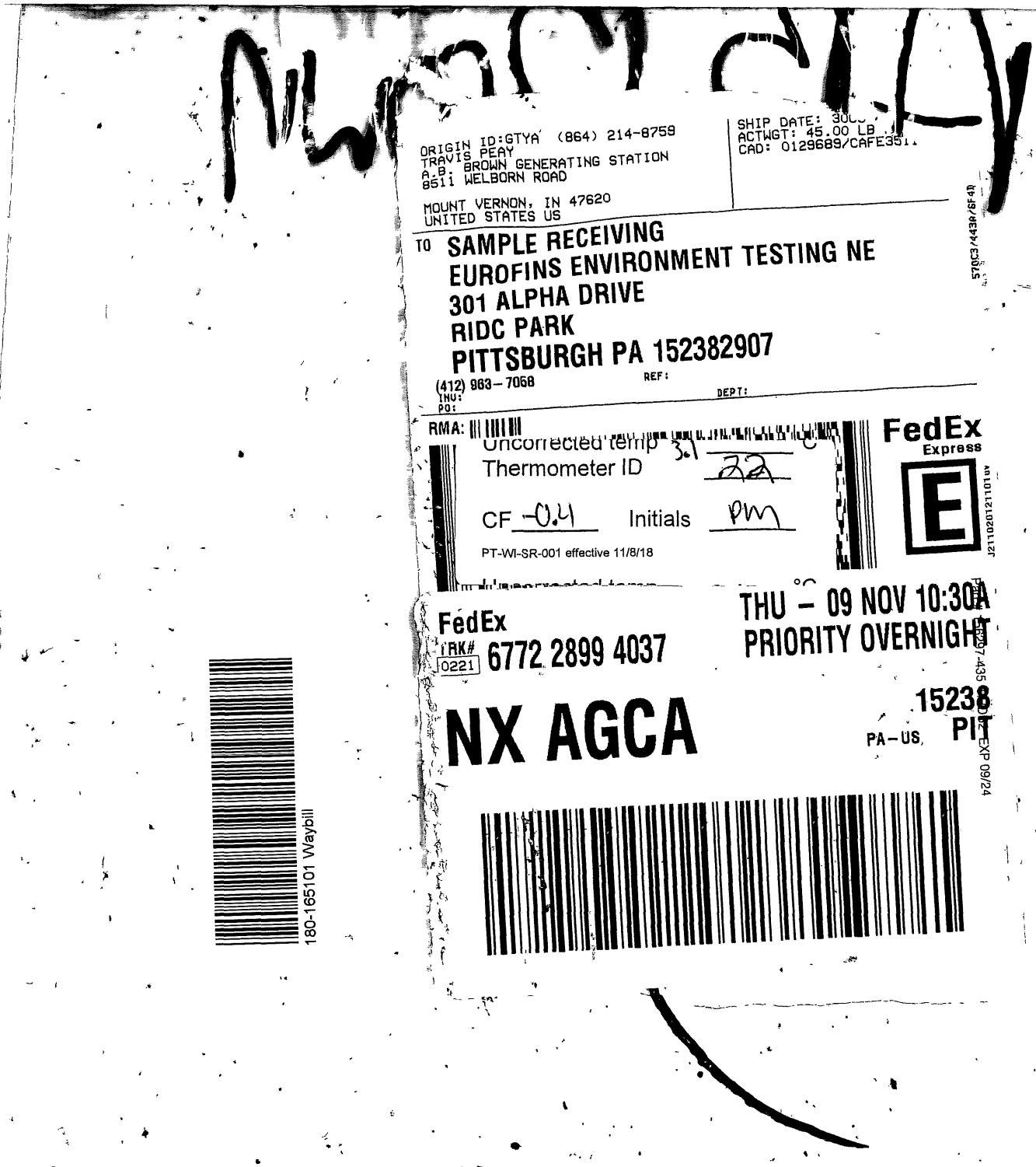
Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Francis Reed	11/08/23 18:00	H+A		11/09/23 0930	EP.H.NE
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021



ORIGIN ID:GTYA (864) 214-8759
TRAVIS PEAY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD

MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 30OC
ACTWGT: 45.00 LB
CAD: 0129689/CAFE3511

570C3/4438/6F4B

TO SAMPLE RECEIVING
EUROFINS ENVIRONMENT TESTING NE
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 152382907

(412) 963-7058 REF:
INV: DEPT:
PO:

RMA:

Uncorrected temp 3.1 °C
Thermometer ID 22
CF -0.4 Initials PM

PT-WI-SR-001 effective 11/8/18

FedEx Express

J211020121101uu

FedEx
TRK# 0221 6772 2899 4037

THU - 09 NOV 10:30A
PRIORITY OVERNIGHT

NX AGCA

15238
PA-US PIT

180-165101 Waybill

EXP 09/24


ORIGIN ID:GTYA
TRAVIS PEAY
A.B. BROWN GENERATIN
861 WELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US
SHIP DATE: 3
ACTWGT: 45.00
CAD: 0129689/CA
TO SAMPLE RECEIVING
EUROFINS ENVIRONMENT TESTING NE
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 152382907
(412) 963
REF:
DEPT:
772 2899 4060
THU - 09 NOV 10:30A
PRIORITY OVERNIGHT
AGCA
6772
2899
4060
15238
PA-US
PI
Uncorrected temp
Thermometer ID
CF -0.1
Initials
PT-WI-SR-001 effective 11/8/18

RT 198 1 10:30 A

FZ 197 4059 11.09

ORIGIN ID:GTYA (864) 214-8759
TRAVIS PEAY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD

MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 30OCT23
ACTWGT: 45.00 LB MAN
CAD: 0129689/CAFE3511

TO SAMPLE RECEIVING
EUROFINS ENVIRONMENT TESTING NE
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 152382907
(412) 963-7058 REF:
INV:
PO: DEPT:

RMA:

Uncorrected temp 2.6 °C
Thermometer ID 22
CF -0.4 Initials PM
PT-WI-SR-001 effective 11/8/18

FedEx Express E

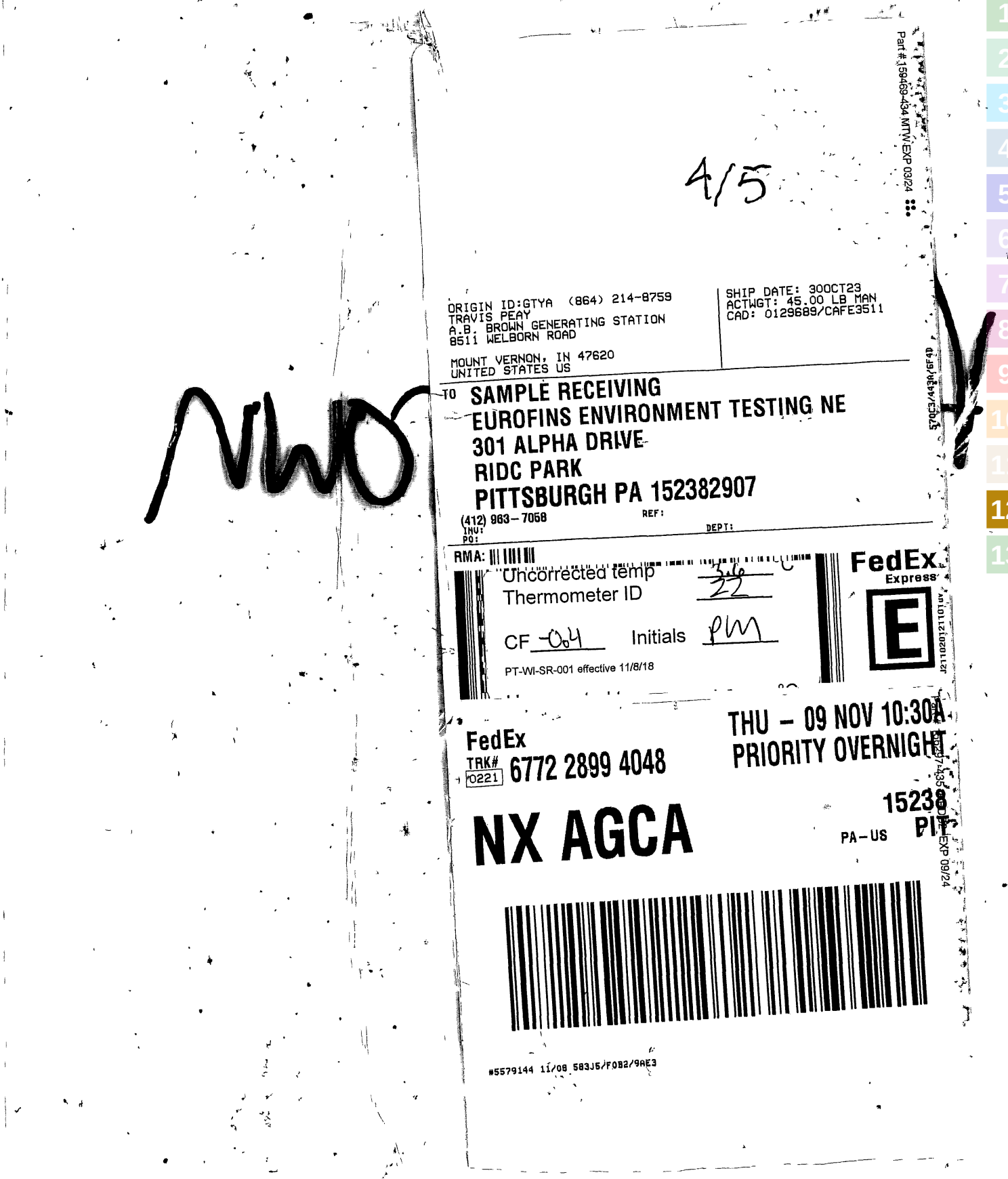
FedEx
TRK# 0221 6772 2899 4059

THU - 09 NOV 10:30A
PRIORITY OVERNIGHT

NX AGCA

15238
PA-US PIT

11/8


4/5
Part # 1594694-34 MTW EXP 03/24
ORIGIN ID:GTYA (864) 214-8759
TRAVIS PEAY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US
SHIP DATE: 30OCT23
ACTWGT: 45.00 LB MAN
CAD: 0129689/CAFE3511
TO SAMPLE RECEIVING
EUROFINS ENVIRONMENT TESTING NE
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 152382907
(412) 963-7058
REF:
INV:
PO:
DEPT:
RMA:
Uncorrected temp
Thermometer ID
CF -0.4
Initials
PT-WI-SR-001 effective 11/8/18
FedEx Express
FedEx
TRK# 0221 6772 2899 4048
THU - 09 NOV 10:30A
PRIORITY OVERNIGHT
NX AGCA
PA-US
#5579144 11/08 583J5/F0B2/9AE3

COC 1/5

ORIGIN ID:GTYA (864) 214-8759
TRAVIS PEAY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD

MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 30OCT23
ACTWGT: 45.00 LB MAN
CAD: 0129689/CAFE3511

TO SAMPLE RECEIVING
EUROFINS ENVIRONMENT TESTING NE
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 152382907

(412) 963-7058 REF:
INV:
PO: DEPT:

RMA:

Uncorrected temp 1.8 C
Thermometer ID 22

CF -0.1 Initials PM

PT-WI-SR-001 effective 11/8/18

FedEx Express

FedEx
TRK# 0221 6772 2899 4070

THU - 09 NOV 10:30A
PRIORITY OVERNIGHT

NX AGCA

15238
PA-US PIT

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-499386.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: Indiana	Page: Page 1 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-165101-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/14/2023	Analysis Requested		Preservation Codes:
City: Earth City	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: AB Brown Generating Station	Project #: 18016014			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Standard Target List	9320_Ra228/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
		Preservation Code:									
MH-1-110723 (180-165101-1)	11/7/23	09:15 Eastern		Water			X	X	X	2	
CCR-AP-3I-110723 (180-165101-2)	11/7/23	09:47 Eastern		Water			X	X	X	2	
MH-2-110723 (180-165101-3)	11/7/23	09:55 Eastern		Water			X	X	X	2	
CCR-AP-3R-110723 (180-165101-4)	11/7/23	11:15 Eastern		Water			X	X	X	2	
FD-PZ-1-110723 (180-165101-5)	11/7/23	12:15 Eastern		Water			X	X	X	2	
CCR-AP-5R-110723 (180-165101-6)	11/7/23	12:53 Eastern		Water			X	X	X	2	
CCR-AP-5R-110723 (180-165101-6DU)	11/7/23	12:53 Eastern	DU	Water			X	X	X	4	
CCR-AP-2I-110723 (180-165101-7)	11/7/23	15:22 Eastern		Water			X	X	X	2	
CCR-AP-11-110723 (180-165101-8)	11/7/23	15:55 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Fedex	Date/Time: 11/13/23 1700	Company: EMAIL	Received by: M. Pinetta Fedex
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Received by:	Date/Time:	Company
	NOV 14 2023 0900	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-499386.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: Indiana	Page: Page 2 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-165101-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/14/2023	Analysis Requested		Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: AB Brown Generating Station	Project #: 18016014			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Standard Target List	9320_Ra226/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
DUP-1-110823 (180-165101-9)	11/8/23	Eastern		Water			X	X	X	2	
FD-PZ-2110823 (180-165101-10)	11/8/23	08:15 Eastern		Water			X	X	X	2	
CCR-AP-2R-110823 (180-165101-11)	11/8/23	09:05 Eastern		Water			X	X	X	2	
FB-1-110823 (180-165101-12)	11/8/23	09:30 Eastern		Water			X	X	X	2	
CCR-AP-8-110823 (180-165101-13)	11/8/23	10:15 Eastern		Water			X	X	X	2	
CCR-AP-4R-110823 (180-165101-14)	11/8/23	12:35 Eastern		Water			X	X	X	2	
CCR-AP-9-110823 (180-165101-15)	11/8/23	12:55 Eastern		Water			X	X	X	2	
CCR-AP-10-110823 (180-165101-16)	11/8/23	11:20 Eastern		Water			X	X	X	2	
CCR-AP-1R-110823 (180-165101-17)	11/8/23	14:00 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Fedex	Date/Time: 11/13/23 1700	Company	Received by: M. Pinette Fedex
Relinquished by:	Date/Time:	Company	Received by: Date/Time: NOV 14 2023 0900 Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

12/20/2023

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-499386.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: Indiana	Page: Page 3 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-165101-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/14/2023	Analysis Requested		Preservation Codes:
City: Earth City	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: AB Brown Generating Station	Project #: 18016014			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Standard Target List	9320_Ra228/PrecSep_0 Standard Target List	Ra226/Ra228_GFPC	Total Number of containers	Special Instructions/Note:
				Preservation Code:							
CCR-BK-1R-110823 (180-165101-18)	11/8/23	15:20 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11/13/23 (7ee)	Company:	Received by: Fedex	Date/Time:	Company
Relinquished by: Fedex	Date/Time:	Company	Received by: M. Pinette	Date/Time: NOV 14 2023 0900	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 180-165101-1
SDG Number: Ash Pond

Login Number: 165101
List Number: 1
Creator: Ryan, Shannon G

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 180-165101-1
SDG Number: Ash Pond

Login Number: 165101
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 11/14/23 02:10 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Todd Plating
Haley & Aldrich, Inc.
400 Augusta Street
Suite 100
Greenville, South Carolina 29601

Generated 12/19/2023 7:55:13 AM

JOB DESCRIPTION

AB Brown Generating Station
Ash Pond

JOB NUMBER

180-165230-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

myEOL

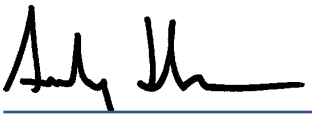
Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization



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Authorized for release by
Andy Johnson, Senior Project Manager
Andy.Johnson@et.eurofinsus.com
(615)818-9567

Table of Contents

Job Narrative
180-165230-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/11/2023 8:29 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

HPLC/IC
Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: CCR-AP-6-110823 (180-165230-3). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following sample was diluted to bring the concentration of target analytes within the calibration range: CCR-AP-7R-110923 (180-165230-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6020A: The linear range check (LRC) failed for several analytes for samples CCR-BK-2-110923 (180-165230-1), CCR-AP-7R-110923 (180-165230-2), CCR-AP-6-110823 (180-165230-3) and (180-165231-E-1-D) and results were substantiated by a secondary verification; the Calibration Standard, the LCS, or CCV. Results are reported, as is, with this narrative.

Method 6020A: The following samples were diluted to bring the concentration of target analytes within the calibration range: (LCS 180-452039/2-A), (180-165231-E-1-E MS ^5), (180-165231-E-1-F MSD ^5), (180-165231-E-1-D PDS ^5) and (180-165231-E-1-D SD ^5). Elevated reporting limits (RLs) are provided.

Method 6020A: The following samples were diluted to bring the concentration of target analytes within the calibration range: (LCS 180-452039/2-A ^5), (180-165231-E-1-E MS ^5) and (180-165231-E-1-F MSD ^5). Elevated reporting limits (RLs) are provided.

Method 6020A: The linear range check (LRC) failed for boron for samples CCR-BK-2-110923 (180-165230-1) and (180-165231-E-1-D) and results were substantiated by a secondary verification; the Calibration Standard, the LCS, or CCV. Results are reported, as is, with this narrative.

Method 6020A: The following samples were diluted to bring the concentration of Boron within the calibration range: CCR-AP-7R-110923 (180-165230-2) and CCR-AP-6-110823 (180-165230-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2540C_Calcd: The sample did not reach a stable weight following 3 cycles of heating, cooling, and desiccation. The cycle 3 weight was used to calculate the Total Dissolved Solids (TDS) for the sample result. CCR-AP-7R-110923 (180-165230-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

Job ID: 180-165230-1 (Continued) Eurofins Pittsburgh

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165230-1
SDG: Ash Pond

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
^5+	Linear Range Check (LRC) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165230-1
SDG: Ash Pond

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-24
California	State	2891	04-30-24
Connecticut	State	PH-0688	12-12-23
Florida	NELAP	E871008	12-12-23
Georgia	State	PA 02-00416	12-12-23
Illinois	NELAP	004375	12-12-23
Kansas	NELAP	E-10350	12-12-23
Kentucky (UST)	State	162013	04-30-23 *
Kentucky (WW)	State	KY98043	12-31-23
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	12-12-23
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-12-23
New Hampshire	NELAP	2030	12-12-23
New Jersey	NELAP	PA005	12-12-23
New York	NELAP	11182	12-12-23
North Carolina (WW/SW)	State	434	12-31-23
North Dakota	State	R-227	04-30-24
Oregon	NELAP	PA-2151	02-06-24
Pennsylvania	NELAP	02-00416	12-12-23
Rhode Island	State	LAO00362	12-31-22 *
South Carolina	State	89014	04-30-23 *
Texas	NELAP	T104704528	12-12-23
US Fish & Wildlife	US Federal Programs	058448	03-31-24
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462019-8	05-31-24
Virginia	NELAP	10043	12-12-23
West Virginia DEP	State	142	01-31-24
Wisconsin	State	998027800	08-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Job ID: 180-165230-1
Project/Site: AB Brown Generating Station
SDG: Ash Pond

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165230-1
SDG: Ash Pond

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-165230-1	CCR-BK-2-110923	Water	11/09/23 08:13	11/11/23 08:29
180-165230-2	CCR-AP-7R-110923	Water	11/09/23 10:35	11/11/23 08:29
180-165230-3	CCR-AP-6-110823	Water	11/08/23 15:20	11/11/23 08:29

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165230-1
SDG: Ash Pond

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	EET PIT
EPA 6010D	Metals (ICP)	SW846	EET PIT
EPA 6020A	Metals (ICP/MS)	SW846	EET PIT
EPA 7470A	Mercury (CVAA)	SW846	EET PIT
EPA 9040C	pH	SW846	EET PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PIT
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PIT
7470A	Preparation, Mercury	SW846	EET PIT
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165230-1
SDG: Ash Pond

Client Sample ID: CCR-BK-2-110923

Lab Sample ID: 180-165230-1

Date Collected: 11/09/23 08:13
Matrix: Water
Date Received: 11/11/23 08:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	452001	11/15/23 14:30	M1D	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	452038	11/16/23 08:37	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452389	11/17/23 19:06	RJR	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	452039	11/16/23 08:37	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452395	11/17/23 17:28	S1Z	EET PIT
	Instrument ID: NEMO									
Total Recoverable	Prep	3005A			50 mL	50 mL	452039	11/16/23 08:37	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452607	11/21/23 14:36	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452480	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452922	11/28/23 09:11	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452193	11/16/23 13:37	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	452200	11/16/23 18:14	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			998.26 mL	1.0 g	637221	11/16/23 10:32	KAC	EET SL
Total/NA	Analysis	9315		1			641268	12/18/23 14:14	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			998.26 mL	1.0 g	637222	11/16/23 10:39	KAC	EET SL
Total/NA	Analysis	9320		1			640878	12/15/23 16:25	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-7R-110923

Lab Sample ID: 180-165230-2

Date Collected: 11/09/23 10:35
Matrix: Water
Date Received: 11/11/23 08:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	452001	11/15/23 22:10	M1D	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	452001	11/15/23 22:29	M1D	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	452038	11/16/23 08:37	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452389	11/17/23 19:11	RJR	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	452039	11/16/23 08:37	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452395	11/17/23 17:31	S1Z	EET PIT
	Instrument ID: NEMO									
Total Recoverable	Prep	3005A			50 mL	50 mL	452039	11/16/23 08:37	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452607	11/21/23 14:39	S1Z	EET PIT
	Instrument ID: NEMO									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165230-1
SDG: Ash Pond

Client Sample ID: CCR-AP-7R-110923

Lab Sample ID: 180-165230-2

Date Collected: 11/09/23 10:35

Matrix: Water

Date Received: 11/11/23 08:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			25 mL	25 mL	452480	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452922	11/28/23 09:12	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452193	11/16/23 13:42	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	452200	11/16/23 18:14	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			762.46 mL	1.0 g	637221	11/16/23 10:32	KAC	EET SL
Total/NA	Analysis	9315		1			641268	12/18/23 14:14	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			762.46 mL	1.0 g	637222	11/16/23 10:39	KAC	EET SL
Total/NA	Analysis	9320		1			640878	12/15/23 16:25	FLC	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-AP-6-110823

Lab Sample ID: 180-165230-3

Date Collected: 11/08/23 15:20

Matrix: Water

Date Received: 11/11/23 08:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	452001	11/15/23 20:38	M1D	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	452038	11/16/23 08:37	SJM	EET PIT
Total Recoverable	Analysis	EPA 6010D		1			452389	11/17/23 19:17	RJR	EET PIT
	Instrument ID: C									
Total Recoverable	Prep	3005A			50 mL	50 mL	452039	11/16/23 08:37	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452395	11/17/23 17:34	S1Z	EET PIT
	Instrument ID: NEMO									
Total Recoverable	Prep	3005A			50 mL	50 mL	452039	11/16/23 08:37	SJM	EET PIT
Total Recoverable	Analysis	EPA 6020A		1			452607	11/21/23 14:42	S1Z	EET PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			25 mL	25 mL	452480	11/21/23 10:15	RJR	EET PIT
Total/NA	Analysis	EPA 7470A		1			452922	11/28/23 09:13	MTW	EET PIT
	Instrument ID: HGZ									
Total/NA	Analysis	EPA 9040C		1			452193	11/16/23 14:19	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	452069	11/15/23 18:30	LWM	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			994.44 mL	1.0 g	637221	11/16/23 10:32	KAC	EET SL
Total/NA	Analysis	9315		1			641268	12/18/23 14:14	FLC	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			994.44 mL	1.0 g	637222	11/16/23 10:39	KAC	EET SL
Total/NA	Analysis	9320		1			640878	12/15/23 16:25	FLC	EET SL
	Instrument ID: GFPCRED									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-165230-1
SDG: Ash Pond

Client Sample ID: CCR-AP-6-110823

Date Collected: 11/08/23 15:20
Date Received: 11/11/23 08:29

Lab Sample ID: 180-165230-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			641297	12/18/23 23:24	EMH	EET SL

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: EET PIT

Batch Type: Prep

RJR = Ron Rosenbaum

SJM = Shannon Mueller

Batch Type: Analysis

BAB = Brooke Batyi

LWM = Leslie McIntire

M1D = Maureen Donlin

MTW = Michael Wesoloski

RJR = Ron Rosenbaum

S1Z = Sage Ziviello

Lab: EET SL

Batch Type: Prep

KAC = Kevin Cox

Batch Type: Analysis

EMH = Elizabeth Hoerchler

FLC = Fernando Cruz

Client Sample ID: CCR-BK-2-110923

Date Collected: 11/09/23 08:13
Date Received: 11/11/23 08:29

Lab Sample ID: 180-165230-1

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17**		1.0	0.71	mg/L			11/15/23 14:30	1
Fluoride	**0.15**		0.10	0.026	mg/L			11/15/23 14:30	1
Sulfate	**21**		1.0	0.76	mg/L			11/15/23 14:30	1

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		200	33	ug/L		11/16/23 08:37	11/17/23 19:06	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/16/23 08:37	11/17/23 17:28	1
Arsenic	ND		0.0010	0.00028	mg/L		11/16/23 08:37	11/21/23 14:36	1
Barium	**0.032**	**^5+**	0.010	0.0031	mg/L		11/16/23 08:37	11/17/23 17:28	1
Beryllium	ND		0.0010	0.00027	mg/L		11/16/23 08:37	11/21/23 14:36	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/16/23 08:37	11/17/23 17:28	1
Calcium	**40**		0.50	0.13	mg/L		11/16/23 08:37	11/17/23 17:28	1
Chromium	ND		0.0020	0.0015	mg/L		11/16/23 08:37	11/17/23 17:28	1
Cobalt	ND		0.00050	0.00026	mg/L		11/16/23 08:37	11/17/23 17:28	1
Lead	ND		0.0010	0.00038	mg/L		11/16/23 08:37	11/17/23 17:28	1
Lithium	**0.0016**	**J ^5+**	0.0050	0.0013	mg/L		11/16/23 08:37	11/17/23 17:28	1
Molybdenum	ND		0.0050	0.00061	mg/L		11/16/23 08:37	11/17/23 17:28	1
Selenium	ND		0.0050	0.00074	mg/L		11/16/23 08:37	11/17/23 17:28	1
Thallium	ND		0.0010	0.00047	mg/L		11/16/23 08:37	11/17/23 17:28	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/28/23 09:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**230**		10	10	mg/L			11/16/23 18:14	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.1**	**HF**	0.1	0.1	SU			11/16/23 13:37	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0837	U	0.109	0.109	1.00	0.181	pCi/L	11/16/23 10:32	12/18/23 14:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*30 - 110*	*11/16/23 10:32*	*12/18/23 14:14*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.639	U	0.452	0.455	1.00	0.695	pCi/L	11/16/23 10:39	12/15/23 16:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*30 - 110*	*11/16/23 10:39*	*12/15/23 16:25*	*1*

Client Sample ID: CCR-BK-2-110923

Date Collected: 11/09/23 08:13
Date Received: 11/11/23 08:29

Lab Sample ID: 180-165230-1

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	75.9		30 - 110	11/16/23 10:39	12/15/23 16:25	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.723		0.465	0.468	5.00	0.695	pCi/L		12/18/23 23:24	1

Client Sample ID: CCR-AP-7R-110923

Date Collected: 11/09/23 10:35
Date Received: 11/11/23 08:29

Lab Sample ID: 180-165230-2

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**430**		1.0	0.71	mg/L			11/15/23 22:10	1
Fluoride	**0.16**		0.10	0.026	mg/L			11/15/23 22:10	1
Sulfate	**1900**		5.0	3.8	mg/L			11/15/23 22:29	5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4800**		200	33	ug/L		11/16/23 08:37	11/17/23 19:11	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/16/23 08:37	11/17/23 17:31	1
Arsenic	**0.00050**	**J**	0.0010	0.00028	mg/L		11/16/23 08:37	11/21/23 14:39	1
Barium	**0.022**	**^5+**	0.010	0.0031	mg/L		11/16/23 08:37	11/17/23 17:31	1
Beryllium	ND		0.0010	0.00027	mg/L		11/16/23 08:37	11/21/23 14:39	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/16/23 08:37	11/17/23 17:31	1
Calcium	**320**		0.50	0.13	mg/L		11/16/23 08:37	11/17/23 17:31	1
Chromium	ND		0.0020	0.0015	mg/L		11/16/23 08:37	11/17/23 17:31	1
Cobalt	ND		0.00050	0.00026	mg/L		11/16/23 08:37	11/17/23 17:31	1
Lead	ND		0.0010	0.00038	mg/L		11/16/23 08:37	11/17/23 17:31	1
Lithium	**0.017**	**^5+**	0.0050	0.0013	mg/L		11/16/23 08:37	11/17/23 17:31	1
Molybdenum	ND		0.0050	0.00061	mg/L		11/16/23 08:37	11/17/23 17:31	1
Selenium	ND		0.0050	0.00074	mg/L		11/16/23 08:37	11/17/23 17:31	1
Thallium	ND		0.0010	0.00047	mg/L		11/16/23 08:37	11/17/23 17:31	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/28/23 09:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**3900**		40	40	mg/L			11/16/23 18:14	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**6.7**	**HF**	0.1	0.1	SU			11/16/23 13:42	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0981	U	0.171	0.172	1.00	0.298	pCi/L	11/16/23 10:32	12/18/23 14:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*30 - 110*	*11/16/23 10:32*	*12/18/23 14:14*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.18**		0.581	0.591	1.00	0.791	pCi/L	11/16/23 10:39	12/15/23 16:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*30 - 110*	*11/16/23 10:39*	*12/15/23 16:25*	*1*

Client Sample ID: CCR-AP-7R-110923

Date Collected: 11/09/23 10:35
Date Received: 11/11/23 08:29

Lab Sample ID: 180-165230-2

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*74.0*		*30 - 110*	*11/16/23 10:39*	*12/15/23 16:25*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.28**		0.606	0.616	5.00	0.791	pCi/L		12/18/23 23:24	1

Client Sample ID: CCR-AP-6-110823

Date Collected: 11/08/23 15:20
Date Received: 11/11/23 08:29

Lab Sample ID: 180-165230-3

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**220**		2.5	1.8	mg/L			11/15/23 20:38	2.5
Fluoride	**0.18**	**J**	0.25	0.065	mg/L			11/15/23 20:38	2.5
Sulfate	**1400**		2.5	1.9	mg/L			11/15/23 20:38	2.5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6800**		200	33	ug/L		11/16/23 08:37	11/17/23 19:17	1

Method: SW846 EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/16/23 08:37	11/17/23 17:34	1
Arsenic	**0.0020**		0.0010	0.00028	mg/L		11/16/23 08:37	11/21/23 14:42	1
Barium	**0.013**	**^5+**	0.010	0.0031	mg/L		11/16/23 08:37	11/17/23 17:34	1
Beryllium	ND		0.0010	0.00027	mg/L		11/16/23 08:37	11/21/23 14:42	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/16/23 08:37	11/17/23 17:34	1
Calcium	**250**		0.50	0.13	mg/L		11/16/23 08:37	11/17/23 17:34	1
Chromium	ND		0.0020	0.0015	mg/L		11/16/23 08:37	11/17/23 17:34	1
Cobalt	**0.0022**		0.00050	0.00026	mg/L		11/16/23 08:37	11/17/23 17:34	1
Lead	ND		0.0010	0.00038	mg/L		11/16/23 08:37	11/17/23 17:34	1
Lithium	**0.021**	**^5+**	0.0050	0.0013	mg/L		11/16/23 08:37	11/17/23 17:34	1
Molybdenum	**0.0041**	**J**	0.0050	0.00061	mg/L		11/16/23 08:37	11/17/23 17:34	1
Selenium	ND		0.0050	0.00074	mg/L		11/16/23 08:37	11/17/23 17:34	1
Thallium	ND		0.0010	0.00047	mg/L		11/16/23 08:37	11/17/23 17:34	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/28/23 09:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2800**		20	20	mg/L			11/15/23 18:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.2**	**HF**	0.1	0.1	SU			11/16/23 14:19	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0429	U	0.104	0.104	1.00	0.221	pCi/L	11/16/23 10:32	12/18/23 14:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*30 - 110*	*11/16/23 10:32*	*12/18/23 14:14*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.318	U	0.319	0.320	1.00	0.513	pCi/L	11/16/23 10:39	12/15/23 16:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*30 - 110*	*11/16/23 10:39*	*12/15/23 16:25*	*1*

Client Sample ID: CCR-AP-6-110823

Date Collected: 11/08/23 15:20
Date Received: 11/11/23 08:29

Lab Sample ID: 180-165230-3

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*84.1*		*30 - 110*	*11/16/23 10:39*	*12/15/23 16:25*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.276	U	0.336	0.336	5.00	0.513	pCi/L		12/18/23 23:24	1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-452001/6
Matrix: Water
Analysis Batch: 452001

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			11/15/23 11:25	1
Fluoride	ND		0.10	0.026	mg/L			11/15/23 11:25	1
Sulfate	ND		1.0	0.76	mg/L			11/15/23 11:25	1

Lab Sample ID: LCS 180-452001/7
Matrix: Water
Analysis Batch: 452001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.1		mg/L		98	80 - 120
Fluoride	2.50	2.52		mg/L		101	80 - 120
Sulfate	50.0	48.8		mg/L		98	80 - 120

Lab Sample ID: 180-165230-1 MS
Matrix: Water
Analysis Batch: 452001

Client Sample ID: CCR-BK-2-110923
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	17		50.0	66.2		mg/L		98	80 - 120
Fluoride	0.15		2.50	2.60		mg/L		98	80 - 120
Sulfate	21		50.0	69.2		mg/L		97	80 - 120

Lab Sample ID: 180-165230-1 MSD
Matrix: Water
Analysis Batch: 452001

Client Sample ID: CCR-BK-2-110923
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	17		50.0	66.0		mg/L		97	80 - 120	0	15
Fluoride	0.15		2.50	2.59		mg/L		98	80 - 120	1	15
Sulfate	21		50.0	69.0		mg/L		97	80 - 120	0	15

Method: EPA 6010D - Metals (ICP)

Lab Sample ID: MB 180-452038/1-A
Matrix: Water
Analysis Batch: 452389

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 452038

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		200	33	ug/L		11/16/23 08:37	11/17/23 18:56	1

Lab Sample ID: LCS 180-452038/2-A
Matrix: Water
Analysis Batch: 452389

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 452038

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1250	1300		ug/L		104	80 - 120

Method: EPA 6020A - Metals (ICP/MS)

Lab Sample ID: MB 180-452039/1-A
Matrix: Water
Analysis Batch: 452395

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 452039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^5+	0.0020	0.00097	mg/L		11/16/23 08:37	11/17/23 17:22	1
Barium	ND	^5+	0.010	0.0031	mg/L		11/16/23 08:37	11/17/23 17:22	1
Cadmium	ND	^5+	0.0010	0.00022	mg/L		11/16/23 08:37	11/17/23 17:22	1
Calcium	ND		0.50	0.13	mg/L		11/16/23 08:37	11/17/23 17:22	1
Chromium	ND		0.0020	0.0015	mg/L		11/16/23 08:37	11/17/23 17:22	1
Cobalt	ND		0.00050	0.00026	mg/L		11/16/23 08:37	11/17/23 17:22	1
Lead	ND		0.0010	0.00038	mg/L		11/16/23 08:37	11/17/23 17:22	1
Lithium	ND	^5+	0.0050	0.0013	mg/L		11/16/23 08:37	11/17/23 17:22	1
Molybdenum	ND		0.0050	0.00061	mg/L		11/16/23 08:37	11/17/23 17:22	1
Selenium	ND		0.0050	0.00074	mg/L		11/16/23 08:37	11/17/23 17:22	1
Thallium	ND		0.0010	0.00047	mg/L		11/16/23 08:37	11/17/23 17:22	1

Lab Sample ID: MB 180-452039/1-A
Matrix: Water
Analysis Batch: 452607

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 452039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010	0.00028	mg/L		11/16/23 08:37	11/21/23 14:30	1
Beryllium	ND		0.0010	0.00027	mg/L		11/16/23 08:37	11/21/23 14:30	1

Lab Sample ID: LCS 180-452039/2-A
Matrix: Water
Analysis Batch: 452395

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 452039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.250	0.264	^5+	mg/L		105	80 - 120
Barium	1.00	0.914	^5+	mg/L		91	80 - 120
Cadmium	0.500	0.513	^5+	mg/L		103	80 - 120
Calcium	25.0	29.0		mg/L		116	80 - 120
Chromium	0.500	0.520		mg/L		104	80 - 120
Cobalt	0.500	0.537		mg/L		107	80 - 120
Lead	0.500	0.515		mg/L		103	80 - 120
Lithium	0.500	0.508	^5+	mg/L		102	80 - 120
Molybdenum	0.500	0.533		mg/L		107	80 - 120
Selenium	1.00	0.970		mg/L		97	80 - 120
Thallium	1.00	1.04		mg/L		104	80 - 120

Lab Sample ID: LCS 180-452039/2-A ^5
Matrix: Water
Analysis Batch: 452607

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 452039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	0.994		mg/L		99	80 - 120
Beryllium	0.500	0.518		mg/L		104	80 - 120
Boron	1.25	1.06	^5-	mg/L		85	80 - 120

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-452480/1-A
Matrix: Water
Analysis Batch: 452922

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00013	mg/L		11/21/23 10:15	11/28/23 08:56	1

Lab Sample ID: LCS 180-452480/2-A
Matrix: Water
Analysis Batch: 452922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00250	0.00243		mg/L		97	80 - 120

Method: EPA 9040C - pH

Lab Sample ID: LCS 180-452193/24
Matrix: Water
Analysis Batch: 452193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-452069/1
Matrix: Water
Analysis Batch: 452069

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			11/15/23 18:30	1

Lab Sample ID: LCS 180-452069/2
Matrix: Water
Analysis Batch: 452069

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	336	332		mg/L		99	85 - 115

Lab Sample ID: MB 180-452200/1
Matrix: Water
Analysis Batch: 452200

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			11/16/23 18:14	1

Lab Sample ID: LCS 180-452200/2
Matrix: Water
Analysis Batch: 452200

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	336	322		mg/L		96	85 - 115

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-637221/1-A
Matrix: Water
Analysis Batch: 641268

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637221

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2180		0.140	0.142	1.00	0.196	pCi/L	11/16/23 10:32	12/18/23 14:14	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*11/16/23 10:32*	*12/18/23 14:14*	*1*

Lab Sample ID: LCS 160-637221/2-A
Matrix: Water
Analysis Batch: 641268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 637221

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	9.796		1.09	1.00	0.148	pCi/L	86	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-637222/1-A
Matrix: Water
Analysis Batch: 640878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637222

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1039	U	0.319	0.319	1.00	0.576	pCi/L	11/16/23 10:39	12/15/23 18:35	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*11/16/23 10:39*	*12/15/23 18:35*	*1*
Y Carrier	*84.5*		*30 - 110*	*11/16/23 10:39*	*12/15/23 18:35*	*1*

Lab Sample ID: LCS 160-637222/2-A
Matrix: Water
Analysis Batch: 640878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 637222

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			3.82	3.953		0.743	1.00	0.509	pCi/L	103	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*30 - 110*
Y Carrier	*78.9*		*30 - 110*

HPLC/IC

Analysis Batch: 452001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total/NA	Water	EPA 9056A	
180-165230-2	CCR-AP-7R-110923	Total/NA	Water	EPA 9056A	
180-165230-2	CCR-AP-7R-110923	Total/NA	Water	EPA 9056A	
180-165230-3	CCR-AP-6-110823	Total/NA	Water	EPA 9056A	
MB 180-452001/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-452001/7	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-165230-1 MS	CCR-BK-2-110923	Total/NA	Water	EPA 9056A	
180-165230-1 MSD	CCR-BK-2-110923	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 452038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total Recoverable	Water	3005A	
180-165230-2	CCR-AP-7R-110923	Total Recoverable	Water	3005A	
180-165230-3	CCR-AP-6-110823	Total Recoverable	Water	3005A	
MB 180-452038/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-452038/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 452039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total Recoverable	Water	3005A	
180-165230-2	CCR-AP-7R-110923	Total Recoverable	Water	3005A	
180-165230-3	CCR-AP-6-110823	Total Recoverable	Water	3005A	
MB 180-452039/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-452039/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 180-452039/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 452389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total Recoverable	Water	EPA 6010D	452038
180-165230-2	CCR-AP-7R-110923	Total Recoverable	Water	EPA 6010D	452038
180-165230-3	CCR-AP-6-110823	Total Recoverable	Water	EPA 6010D	452038
MB 180-452038/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	452038
LCS 180-452038/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	452038

Analysis Batch: 452395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total Recoverable	Water	EPA 6020A	452039
180-165230-2	CCR-AP-7R-110923	Total Recoverable	Water	EPA 6020A	452039
180-165230-3	CCR-AP-6-110823	Total Recoverable	Water	EPA 6020A	452039
MB 180-452039/1-A	Method Blank	Total Recoverable	Water	EPA 6020A	452039
LCS 180-452039/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020A	452039

Prep Batch: 452480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total/NA	Water	7470A	
180-165230-2	CCR-AP-7R-110923	Total/NA	Water	7470A	
180-165230-3	CCR-AP-6-110823	Total/NA	Water	7470A	
MB 180-452480/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-452480/2-A	Lab Control Sample	Total/NA	Water	7470A	

Metals

Analysis Batch: 452607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total Recoverable	Water	EPA 6020A	452039
180-165230-2	CCR-AP-7R-110923	Total Recoverable	Water	EPA 6020A	452039
180-165230-3	CCR-AP-6-110823	Total Recoverable	Water	EPA 6020A	452039
MB 180-452039/1-A	Method Blank	Total Recoverable	Water	EPA 6020A	452039
LCS 180-452039/2-A ^5	Lab Control Sample	Total Recoverable	Water	EPA 6020A	452039

Analysis Batch: 452922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total/NA	Water	EPA 7470A	452480
180-165230-2	CCR-AP-7R-110923	Total/NA	Water	EPA 7470A	452480
180-165230-3	CCR-AP-6-110823	Total/NA	Water	EPA 7470A	452480
MB 180-452480/1-A	Method Blank	Total/NA	Water	EPA 7470A	452480
LCS 180-452480/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	452480

General Chemistry

Analysis Batch: 452069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-3	CCR-AP-6-110823	Total/NA	Water	SM 2540C	
MB 180-452069/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-452069/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 452193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total/NA	Water	EPA 9040C	
180-165230-2	CCR-AP-7R-110923	Total/NA	Water	EPA 9040C	
180-165230-3	CCR-AP-6-110823	Total/NA	Water	EPA 9040C	
LCS 180-452193/24	Lab Control Sample	Total/NA	Water	EPA 9040C	

Analysis Batch: 452200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total/NA	Water	SM 2540C	
180-165230-2	CCR-AP-7R-110923	Total/NA	Water	SM 2540C	
MB 180-452200/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-452200/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 637221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total/NA	Water	PrecSep-21	
180-165230-2	CCR-AP-7R-110923	Total/NA	Water	PrecSep-21	
180-165230-3	CCR-AP-6-110823	Total/NA	Water	PrecSep-21	
MB 160-637221/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-637221/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 637222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-165230-1	CCR-BK-2-110923	Total/NA	Water	PrecSep_0	
180-165230-2	CCR-AP-7R-110923	Total/NA	Water	PrecSep_0	
180-165230-3	CCR-AP-6-110823	Total/NA	Water	PrecSep_0	
MB 160-637222/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 637222 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-637222/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

HARRISBURG PA

Eurofins | Environment Testing

Client Information	Sampler: Francis Reed	Lab PM: Hayes, Ken	Carrier Tracking No(s):	COC No: 180-96134-15023.3
Client Contact: Britton Hundley	Phone: 614-288-8619	E-Mail: Ken.Hayes@et.eurofinsus.com	State of Origin: IN	Page: Page 3 of 3
Company: Haley & Aldrich, Inc.	PWSID:			Job #: 0129420
Address: 400 Augusta Street Suite 100	Due Date Requested:			
City: Greenville	TAT Requested (days): STD			
State, Zip: SC, 29601	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0129420-037-001-01			
Email: BHundley@haleyaldrich.com	WO #: 0129420-037-001-01			
Project Name: AB Brown Genertating Station	Project #: 18016014			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9040C, 9056A_ORGFM_28D	6020A, 7470A	2540C_Calcd - Local Method	9316_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Ra226Ra228_GFPC - Local Method	6010D - (MOD) Boron	Special Instructions/Note:
CCR-BK-2-110923	11/09/23	08:13	G	Water	N	N	X	X	X	X	X	X	X	
CCR-AP-7R-110923	11/09/23	10:35	G	Water	N	N	X	X	X	X	X	X	X	
CCR-AP-6-110823	11/08/23	15:20	G	Water	N	N	X	X	X	X	X	X	X	
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										

180-165230 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Francis Reed	11/10/23 10:30	H+A		11/11/23 0829	EHNF
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

12/19/2023

ay Delivery

151966 10/04 MWI

FedEx® Saturday Delive

Sample Pro

Portable MicroPurge® Pumps

Genuine Replacement Part

1-800-624-2026 www.micropurge.com PAT. Nos. 6206667 - 6224343 - 6450

Bladder Kit

38360

ORIGIN ID:GTYA (864) 214-8759
TRAVIS PEAY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD

MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 800CT23
ACTWGT: 45.00 LB
CAD: 0129689/CAFE3501

TO SAMPLE RECEIVING
EUROFINS ENVIRONMENT TESTING NE
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 152382907

(412) 963-7058
INV:
PO: REF:
DEPT:

RMA:

Uncorrected temp 2.8 °C
Thermometer ID 22
CF -0.4 Initials PM

PT-WI-SR-001 effective 11/8/18

FedEx Express

FedEx
TRK# 0221 6772 2899 4015

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO AGCA

15238
PA-US PIT

W3923924 11/10 583J5/F01

180-165230 Waybill

FedEx Express

SDR

FedEx® Saturday Delivery

151966 10/04 MWI

Page 2 of 3

NOTE: For reasons of contamination and leak integrity, these bladders are designed for one-time use only. QED cannot be held responsible for cross contamination or leakage failures if bladders are reused.

QED Environmental Systems

P.O. Box 3726 Ann Arbor, MI 48106-37
1-800-624-2026 Fax (734) 995-1170
info@qedenv.com www.qedenv.com

12/19/2023

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-499386.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: Indiana	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-165230-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/18/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: AB Brown Generating Station	Project #: 18016014			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Standard Target List	9320_Ra228/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
CCR-BK-2-110923 (180-165230-1)	11/9/23	08:13 Eastern		Water			X	X	X	2	
CCR-AP-7R-110923 (180-165230-2)	11/9/23	10:35 Eastern		Water			X	X	X	2	
CCR-AP-6-110823 (180-165230-3)	11/8/23	15:20 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: [signature] Fedex	Date/Time: 11/13/23 1700	Company: [illegible]	Received by: [illegible] Fedex
Relinquished by:	Date/Time:	Company	Received by: M. Pinetta
Relinquished by:	Date/Time:	Company	Received by:

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Date/Time	Company	Date/Time	Company
		NOV 14 2023 900	

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 180-165230-1
SDG Number: Ash Pond

Login Number: 165230
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	False	Sample splitting required for subcontract purposes.
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 180-165230-1
SDG Number: Ash Pond

Login Number: 165230
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 11/14/23 02:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX D
WELL ABANDONMENT FORM

RECORD OF WATER WELL

State Form 35680 (R5 / 9-04)

Driller--Mail complete record in 30 days to:
INDIANA DEPT. OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204-2641
(877) 928-3755 toll-free or (317) 232-4160

County Permit Number
DNR Variance Number
Include if applicable

Fill in completely

WELL LOCATION

County where drilled	Civil township name	Township number (N-S)	Range number (E-W)	Section
POSEY	MARRS			

Driving directions to the well location (*include trip origin, street & road names, intersecting roads, and compass directions).*
Show well address below and subdivision in box at lower right. There is space for a map on the reverse side.

From Indianapolis take I-70 West to US 41 South to SR 62 West. From SR 62, turn South on West Franklin Rd. and then bear left on to Welborn Rd, and follow to Vectren's AB Brown Generating Station.

Well address: **8511 Welborn Rd, Mt. Vernon, IN 47620**

UTM Northing
UTM Easting
Datum ☐ NAD 27 ☐ NAD 83
GPS used
Subdivision name & lot number (if applicable)

If drilled for water supply, this well is: ☐ First well on property ☐ Replacement well ☐ Additional well on property ☐ Dry hole

OWNER - CONTRACTOR

Well owner--name	Telephone number
VECTREN	(812) 464-4793

Address *(number and street, city, state, ZIP code)*
P.O. BOX 209, EVANSVILLE, IN 47702

Environmental Consultant--name	Address *(number and street, city, state, ZIP code)*	Telephone number
ATC ASSOCIATES INC.	7988 CENTERPOINT DR., INDIANAPOLIS, IN 46256	(317) 849-4990
Drilling contractor--name	Address *(number and street, city, state, ZIP code)*	Telephone number
ATC ASSOCIATES INC.	7988 CENTERPOINT DR., INDIANAPOLIS, IN 46256	(317) 849-4990

Equipment operator--name	License number of operator	**Date of well completion**
G.LAUBER	4069	11/6/23

CONSTRUCTION DETAILS

Use of well
☐ Home
☐ Public supply
☐ Industrial / Commercial
☐ Livestock
☐ Irrigation
☑ Monitoring / Environ.
☐ Test Hole
Other: _____

Drilling method
☐ Rotary
☐ Reverse Rotary
☐ Cable Tool
☐ Jet
☐ Bucket / Bore
☐ Auger (including HSA)
☐ Direct Push
Other: _____

Type of pump
☐ Submersible
☐ Shallow-well jet
☐ Deep-well jet
☑ No pump installed
Other: _____

Pump depth setting (feet)

Total depth of well (feet) 44.7	**Borehole diameter** (in.)	**Gravel pack inserted**	☐ Yes ☐ No
Casing length (feet) 34.7	**Casing diameter** (in.) 1.5	**Casing material** Other: _____	☑ PVC ☐ Steel
Screen length (feet) 10	**Screen diameter** (in.)	**Screen material** Other: _____	☐ PVC ☐ Steel
Screen slot size 0.1	**Water quality** (clear, odor, etc.)		

WELL CAPACITY TEST

Test method	**Static level** below surface	**Gallons per min.**	**Hours tested**	**Drawdown** (change in level)
☐ Air ☐ Bailing ☐ Pumping	U/K feet			feet

GROUTING

Grout material	Grout depth from to	Installation method	No. of bags used

WELL ABANDONMENT

Sealing material	Depth filled from to	Installation method	No. of bags used
BENTONITE	44.7 1	POURED	2.0

WELL LOG

FORMATIONS: Type of material	From (feet)	To (feet)
CMA-07		
FILL WELL PIPE WITH BENTONITE		
REMOVE TOP SECTION OF PIPE		

Additional space for well log and comments on reverse side

I hereby swear or affirm, under the penalties for perjury, that the information submitted herewith is, to the best of my knowledge and belief, true, accurate, and complete.

Signature of **drilling contractor** or authorized representative MUST BE SIGNED OR STAMPED

Zach Vaughan

Date 12/5/23