

Annual Groundwater Monitoring Report

Southwestern Electric Power Company
H. W. Pirkey Power Plant
Landfill CCR Management Unit
Hallsville, Texas

January 31, 2022

Prepared by:
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Abbreviations:

ASD - Alternate Source Demonstration
CCR – Coal Combustion Residual
GWPS - Groundwater protection standards
SSI - Statistically Significant Increase
SSL - Statistically Significant Level

I. Summary

This *Annual Groundwater Monitoring Report* (Report) has been prepared to report the status of activities for the preceding year for the Landfill (LF) Coal Combustion Residual (CCR) unit at Pirkey Power Plant. Southwestern Electric Power Company is wholly-owned subsidiary of American Electric Power Company (AEP). The Texas Commission on Environmental Quality's (TCEQ's) CCR rules require that the Annual Groundwater Monitoring Report be posted to the operating record for the preceding year no later than January 31, 2022.

In general, the following activities were completed:

- At the start of the current annual reporting period, the LF was operating under the Detection monitoring program.
- At the end of the current annual reporting period, the LF was operating under the Detection monitoring program.
- Groundwater samples were collected for the wells the landfill groundwater monitoring network in May and November 2021 and analyzed for Appendix III, as specified in 30 TAC §352.941 *et seq.* and AEP's *Groundwater Sampling and Analysis Plan (2021)*.
- Groundwater data underwent various validation tests, including tests for completeness, valid values, transcription errors, and consistent units.
- There were no SSIs determined for the 2nd semi-annual 2020 groundwater sampling and analysis event.
- There were no SSIs determined for the 1st semi-annual 2021 groundwater sampling and analysis event.
- The 2nd semi-annual event (November 2021) data are still undergoing statistical analysis.
- The background data was re-established on January 27, 2021.
- A statistical process in accordance with 30 TAC §352.931 to evaluate groundwater data was updated, certified, and posted to AEP's CCR website in 2021 titled: AEP's *Statistical Analysis Plan* (Geosyntec 2021). The statistical process was guided by USEPA's *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* ("Unified Guidance," USEPA, 2009).

The major components of this annual report, to the extent applicable at this time, are presented in sections that follow:

- A map, aerial photograph or a drawing showing the CCR management unit(s), all groundwater monitoring wells and monitoring well identification numbers;

- All of the monitoring data collected, including the rate and direction of groundwater flow, plus a summary showing the number of samples collected per monitoring well, the dates the samples were collected and whether the sample was collected as part of detection monitoring or assessment monitoring programs (Attached as **Appendix 1**);
- Statistical comparison of monitoring data to determine if there have been SSI(s) or SSL(s) (Attached as **Appendix 2**);
- A discussion of whether any alternate source demonstrations were performed, and the conclusions (where applicable Attached as **Appendix 3**);
- A summary of any transition between monitoring programs, or an alternate monitoring frequency, for example the date and circumstances for transitioning from detection monitoring to assessment monitoring, in addition to identifying the constituents detected at a SSI over background concentrations (where applicable);
- Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a statement as to why that happened;
- Other information required to be included in the annual report such as field sheets, analytical reports, etc. (**Appendix 4 and 5**)

In addition, this report summarizes key actions completed, and where applicable, describes any problems encountered and actions taken to resolve those problems. The report includes a projection of key activities for the upcoming year.

II. Groundwater Monitoring Well Locations and Identification Numbers

The figure that follows depicts the PE-certified groundwater monitoring network, the monitoring well locations and their corresponding identification numbers.

A figure that depicts the PE-certified groundwater monitoring network, the monitoring well locations, and their corresponding identification numbers is provided in **Appendix 1**.

Landfill Monitoring Wells	
Upgradient	Downgradient
AD-8	AD-23
AD-12	AD-34
AD-16	AD-35 (decommissioned 2018)
AD-27	AD-36 (installed 2019)

III. Monitoring Wells Installed or Decommissioned

There were no new groundwater monitoring wells installed or decommissioned during 2021. The network design is summarized in the *Groundwater Monitoring Network Design Report* (January 2021) and is posted at the CCR website for Pirkey Power Plant's LF. That network design report, viewable on the AEP CCR web site, discusses the facility location, the hydrogeological setting, the hydrostratigraphic units, the uppermost aquifer, downgradient monitoring well locations and the upgradient monitoring well locations.

IV. Groundwater Quality Data and Static Water Elevation Data, With Flow Rate and Direction and Discussion

Appendix 1 contains tables showing the groundwater quality data collected during the establishment of background quality, and during detection and assessment monitoring. Static water elevation data from each monitoring event also are shown in **Appendix 1**, along with the groundwater velocity calculations, groundwater flow direction and potentiometric maps developed after each sampling event.

As required by the detection monitoring rules, 30 TAC §352.941 *et seq*, two rounds of sampling were conducted in May and November including all 30 TAC §352 Appendix III parameters.

The verification sample after the 1st half 2021 groundwater sampling event appeared to be consistent with groundwater flow that is normally seen near the landfill (toward the south).

Detection monitoring will continue in 2021.

V. Statistical Evaluation of 2021 Events

Appendix 2 contains the statistical analysis report(s).

There were no SSIs determined for the 2nd semi-annual 2020 sampling event (November 2020).

There were no SSIs during the 1st semi-annual sampling event held in May 2021.

The 2nd semi-annual event (November 2021) data are still undergoing statistical analysis.

VI. Alternate Source Demonstration

No alternate source investigation were conducted for the landfill during 2021.

VII. Discussion About Transition Between Monitoring Requirements or Alternate Monitoring Frequency

No transition was made during the reporting period and the CCR Unit remained in detection monitoring.

Regarding defining an alternate monitoring frequency, the groundwater velocity and monitoring well production are high enough at this facility that no modification to the semiannual assessment monitoring frequency is needed.

VIII. Other Information Required

The background data was re-established on January 27, 2021.

As required by the CCR detection monitoring rules in 30 TAC §352.941, sampling all LF CCR wells for the 30 TAC §352 Appendix III parameters was completed in 2021.

IX. Description of Any Problems Encountered in 2021 and Actions Taken

No significant problems were encountered. The low flow sampling effort went smoothly and the schedule was met to support the annual groundwater report preparation covering the year 2021 groundwater monitoring activities.

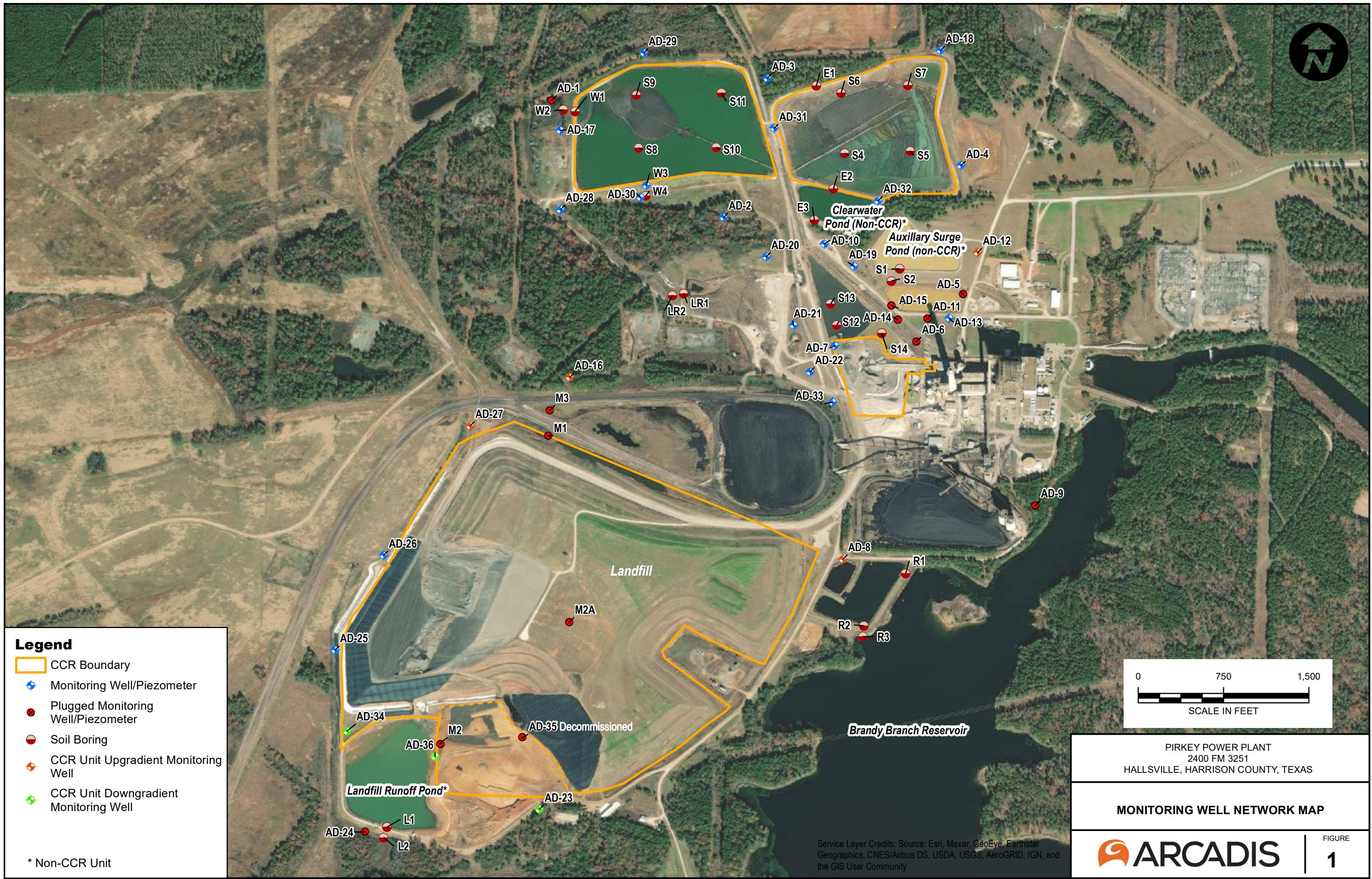
X. A Projection of Key Activities for the Upcoming Year

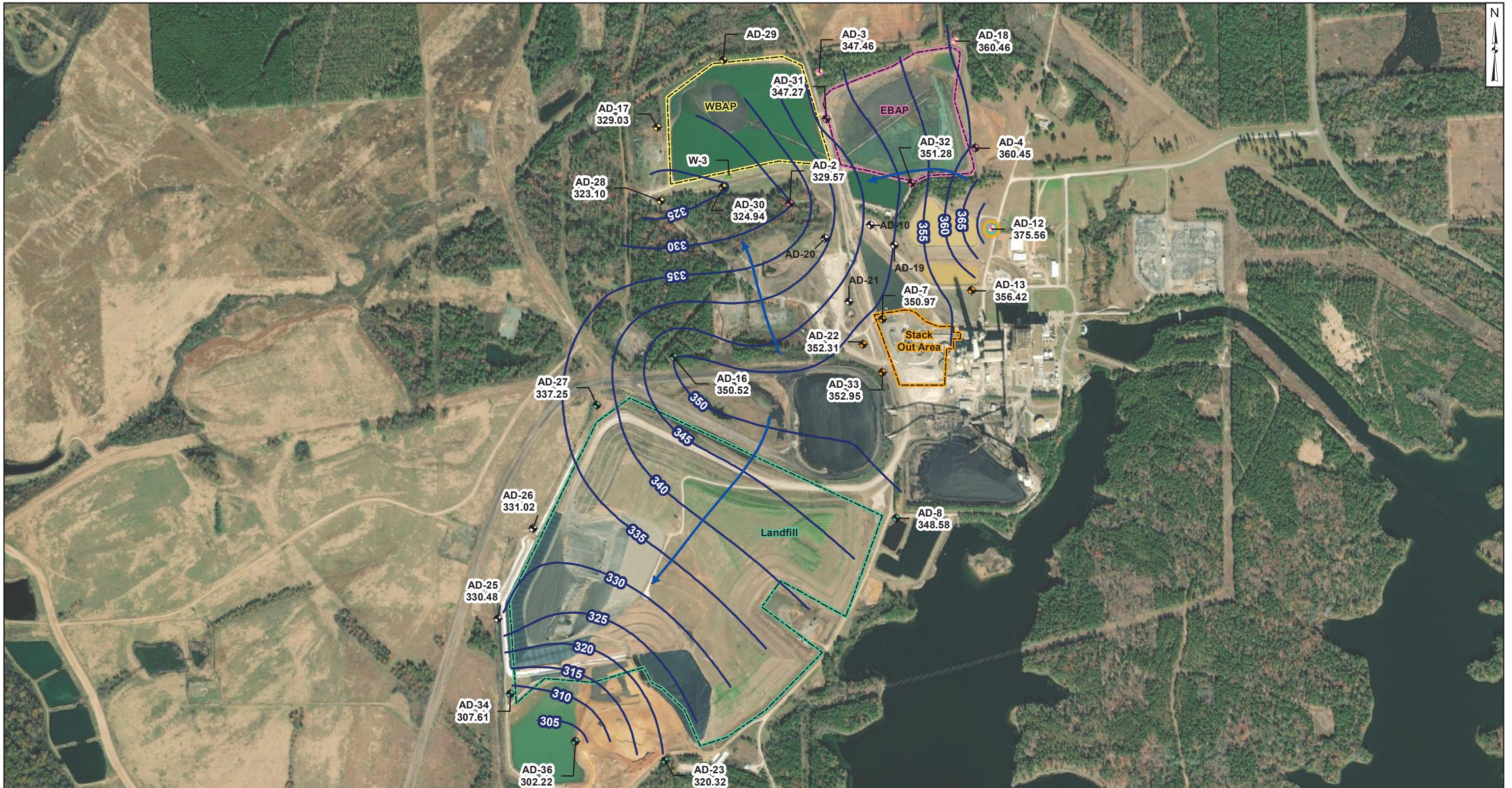
Key activities for the next year include:

- Detection monitoring sampling will be conducted;
- Complete the statistical evaluation of the second semi-annual groundwater monitoring event that took place in November 2021.
- Conduct groundwater sampling events for all constituents listed in 30 TAC §352 Appendix III as required by 30 TAC 352.941.
- Perform statistical analysis on the sampling results for the 30 TAC §352 Appendix III parameters as required by 30 TAC 352.941.
- Evaluation of the detection monitoring results from a statistical analysis viewpoint, looking for any SSIs over background;
- Responding to any new data received in light of TCEQ CCR rule requirements;
- Preparation of the next annual groundwater report.

APPENDIX 1- Groundwater Data Tables and Figures

Figures and Tables follow, showing the groundwater monitoring data collected, the rate and direction of groundwater flow, and a summary showing the number of samples collected per monitoring well. The dates that the samples were collected also is shown.





Legend	
Groundwater Monitoring Wells	<ul style="list-style-type: none"> All CCR Unit Networks Piezometer Approximate Groundwater Flow Direction Groundwater Elevation Contour
♦ Out of Network	
◆ EBAP	
◆ WBAP	
◆ Landfill	
◆ Stackout Area	
◆ EBAP and WBAP	

Notes

- Monitoring well coordinates and water level data (collected on May 24-26, 2021) provided by AEP.
- Site features based on information available in CCR Groundwater Monitoring Well Network Evaluations (Arcadis, 2016) provided by AEP.
- Groundwater elevation units are feet above mean sea level.
- East and West Bottom Ash Ponds have compacted cohesive soil from elevation 344 to 347 ft. msl (Sargent and Lundy, 1984; AMEC, 2011).
- Clearwater pond base elevation is 344 ft. msl (Sargent and Lundy, 1983).
- AD-10, AD-19, AD-20, AD-21, AD-29, AD-35, and W-3 were not gauged during the May 2021 event.



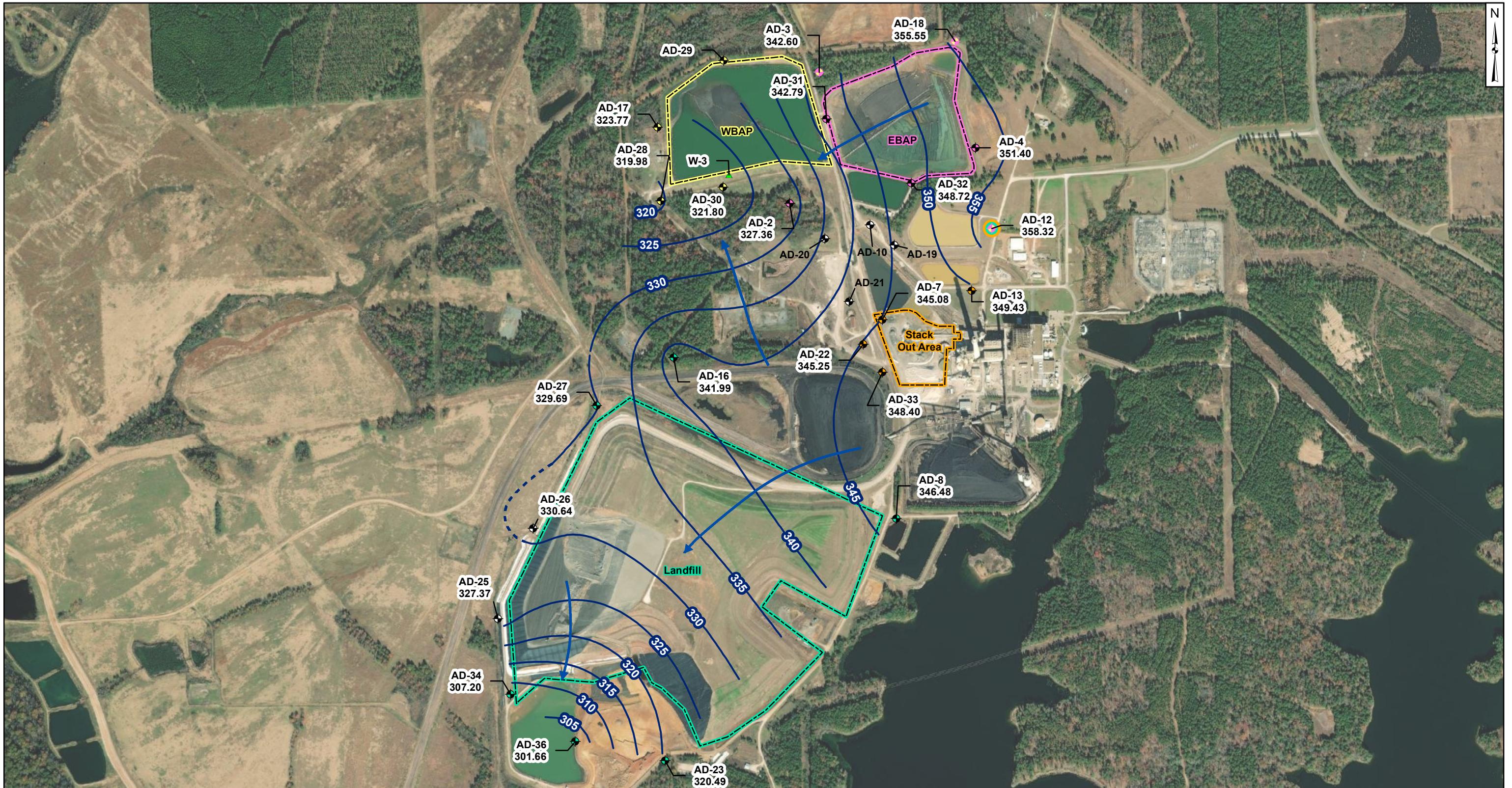
Potentiometric Contours - Uppermost Aquifer
May 2021

AEP Pirkey Power Plant
Hallsville, Texas

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consultants

Figure
2

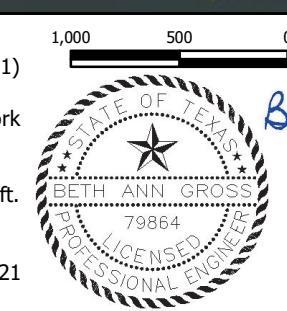
Columbus, Ohio 2021/08/18



Legend	
Groundwater Monitoring Wells	
◆	All CCR Unit Networks
◆	Out of Network
◆	EBAP
◆	WBAP
◆	Landfill
◆	Stackout Area
◆	EBAP and WBAP
▲	Piezometer
—	Groundwater Elevation Contour
- - -	Groundwater Elevation Contours (Inferred)
→	Approximate Groundwater Flow Direction

Notes

- Monitoring well coordinates and water level data (collected on November 15 - 17, 2021) provided by AEP.
- Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis, 2016) provided by AEP.
- Groundwater elevation units are feet above mean sea level.
- East and West Bottom Ash Ponds have compacted cohesive soil from elevation 344 to 347 ft. msl (Sargent and Lundy, 1984; AMEC, 2011).
- Clearwater pond base elevation is 344 ft. msl (Sargent and Lundy, 1983).
- AD-10, AD-19, AD-20, AD-21, AD-29, AD-35, and W-3 were not gauged during the May 2021 event.



Beth Ann Gross

Jan 14, 2022

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Potentiometric Contours - Uppermost Aquifer November 2021

AEP Pirkey Power Plant
Hallsville, Texas

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Figure

3

**Residence Time Calculation Summary Pirkey
Landfill**

Geosyntec Consultants, Inc.

CCR Management Unit	Monitoring Well	Well Diameter (inches)	2021-05		2021-07 ^[3]		2021-11	
			Groundwater Velocity (ft/year)	Groundwater Residence Time (days)	Groundwater Velocity (ft/year)	Groundwater Residence Time (days)	Groundwater Velocity (ft/year)	Groundwater Residence Time (days)
Landfill	AD-8 ^[1]	4.0	6.9	17.6	NC	NC	6.8	17.8
	AD-12 ^[1]	4.0	40.6	3.0	NC	NC	19.3	6.3
	AD-16 ^[1]	2.0	23.8	2.6	NC	NC	21.8	2.8
	AD-23 ^[2]	2.0	23.6	2.6	25.2	2.4	22.9	2.7
	AD-27 ^[1]	2.0	7.3	8.3	NC	NC	15.4	3.9
	AD-34 ^[2]	2.0	35.0	1.7	NC	NC	28.5	2.1
	AD-36 ^[2]	2.0	27.7	2.2	25.7	2.4	27.8	2.2

Notes:

[1] - Background Well

[2] - Downgradient Well

[3] - Only select wells were gauged as part of two-of-two verification sampling

NC - Not Calculated

Table 1 - Groundwater Data Summary: AD-8
Pirkey - LF
Appendix III Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
5/10/2016	Background	1.58	109	9	< 0.083 U1	6.1	181	432
7/13/2016	Background	0.775	20.7	13	2	6.2	131	280
9/8/2016	Background	1.04	50.7	12	2	5.1	121	285
10/12/2016	Background	0.793	20.8	13	2	3.7	184	276
11/15/2016	Background	0.769	17.2	13	3	3.7	208	296
1/11/2017	Background	0.734	18.6	13	3	3.6	228	280
2/28/2017	Background	0.777	18.1	10	2	3.7	157	250
4/11/2017	Background	0.779	17.1	12	3	3.9	168	284
8/23/2017	Detection	0.411	19.4	9	0.587 J1	3.9	56	110
3/21/2018	Assessment	1.03	56.1	8	1.1987	5.7	140	278
8/20/2018	Assessment	0.714	14.5	18	5.1991	3.7	168	300
2/28/2019	Assessment	1.05	103	6.83	0.40	5.7	175	462
5/21/2019	Assessment	1.11	85.5	4.48	0.33	5.9	127	296
8/13/2019	Detection	0.818	27.6	12.7	3.39	4.6	128	260
6/3/2020	Detection	0.783	74.4	11.5	2.45	5.8	196	396
11/3/2020	Detection	0.822	18.5	15.8	2.50	4.1	119	237
5/26/2021	Detection	0.986	93.4	3.28	0.35	5.9	168	390
11/17/2021	Detection	0.693	21.9 M1, P3	15.4	2.31	4.2	97.2	220

Notes:

mg/L: milligrams per liter

SU: standard unit

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.

In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

M1: The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.

P3: The precision on the matrix spike duplicate (MSD) was above acceptance limits.

Table 1 - Groundwater Data Summary: AD-8
Pirkey - LF
Appendix IV Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/10/2016	Background	< 0.93 U1	< 1.05 U1	38	1	< 0.07 U1	1	1.80288 J1	0.9155	< 0.083 U1	1.02541 J1	< 0.00013 U1	0.027	< 0.29 U1	15	1.19926 J1
7/13/2016	Background	< 0.93 U1	1.16508 J1	61	7	0.175996 J1	1	20	6.75	2	1.46729 J1	0.032	0.211	< 0.29 U1	< 0.99 U1	< 0.86 U1
9/8/2016	Background	< 0.93 U1	< 1.05 U1	48	2	< 0.07 U1	0.835837 J1	9	1.658	2	< 0.68 U1	0.018	0.048	< 0.29 U1	3.84567 J1	< 0.86 U1
10/12/2016	Background	< 0.93 U1	1.46586 J1	61	6	< 0.07 U1	0.74214 J1	18	6.72	2	2.30733 J1	0.032	0.112	< 0.29 U1	2.51464 J1	< 0.86 U1
11/15/2016	Background	< 0.93 U1	< 1.05 U1	52	6	0.118693 J1	0.805286 J1	18	6.14	3	2.85553 J1	0.03	0.16	< 0.29 U1	< 0.99 U1	< 0.86 U1
1/11/2017	Background	< 0.93 U1	1.53134 J1	60	6	0.108717 J1	2	18	6.29	3	2.99592 J1	0.032	0.157	< 0.29 U1	1.4083 J1	< 0.86 U1
2/28/2017	Background	< 0.93 U1	1.68597 J1	52	6	0.13889 J1	0.633257 J1	18	7.64	2	3.26919 J1	0.031	0.153	< 0.29 U1	1.78549 J1	< 0.86 U1
4/11/2017	Background	< 0.93 U1	< 1.05 U1	51	6	0.128137 J1	0.887504 J1	19	5.56	3	2.44168 J1	0.031	0.01068 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
3/21/2018	Assessment	< 0.93 U1	< 1.05 U1	37.9	2.57	< 0.07 U1	< 0.23 U1	9.38	2.499	1.1987	0.95 J1	0.01503	0.049	< 0.29 U1	27.68	< 0.86 U1
8/20/2018	Assessment	0.02 J1	4.05	33.4	4.55	0.18	0.759	15.9	0.145	5.1991	4.46	0.0221	0.105	0.02 J1	9.8	0.083
2/28/2019	Assessment	< 0.4 U1	< 0.6 U1	46.8	< 0.4 U1	< 0.2 U1	< 0.8 U1	0.8 J1	1.066	0.40	< 0.4 U1	0.002 J1	< 0.005 U1	< 8 U1	30.8	< 2 U1
5/21/2019	Assessment	< 0.4 U1	1 J1	42.8	1 J1	< 0.2 U1	< 0.8 U1	< 0.4 U1	1.786	0.33	< 0.4 U1	0.0003 J1	0.009 J1	< 8 U1	23.9	< 0.1 U1

Notes:

µg/L: micrograms per liter

mg/L: milligrams per liter

pCi/L: picocuries per liter

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-12
Pirkey - LF
Appendix III Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
5/11/2016	Background	0.03	0.362	5	< 0.083 U1	4.4	4	94
7/13/2016	Background	0.03	0.26	6	< 0.083 U1	3.1	4	75
9/7/2016	Background	0.04	0.343	6	< 0.083 U1	3.9	7	63
10/12/2016	Background	0.03	0.271	7	1	3.4	8	92
11/14/2016	Background	0.04	0.331	8	< 0.083 U1	2.6	6	80
1/11/2017	Background	0.03	0.315	7	< 0.083 U1	4.8	6	76
2/28/2017	Background	0.04	0.434	5	< 0.083 U1	3.6	4	50
4/11/2017	Background	0.05	0.299	6	0.2565 J1	4.7	7	72
8/23/2017	Detection	0.0495	0.245	6	0.213 J1	4.8	6	52
3/21/2018	Assessment	0.01397	0.269	5	< 0.083 U1	4.2	3	< 2 U1
8/20/2018	Assessment	0.017	0.338	10	< 0.083 U1	4.4	4	94
2/27/2019	Assessment	0.03 J1	0.4 J1	6.08	0.09	5.2	3.6	36
5/21/2019	Assessment	0.020	0.3 J1	6.30	0.09	4.1	4.0	80
8/12/2019	Detection	< 0.02 U1	0.278	7.24	0.06 J1	4.9	2.6	90
3/10/2020	Detection	0.02 J1	0.3 J1	6.08	0.10	4.9	3.7	62
6/2/2020	Detection	< 0.02 U1	0.2 J1	5.63	0.10	4.0	3.9	91
11/2/2020	Detection	0.03 J1	0.3 J1	4.65	0.08	4.3	3.3	74
3/8/2021	Detection	0.01 J1	0.2 J1	6.46	0.11	4.1	3.8	68
5/24/2021	Detection	0.032 J1	0.2 J1	5.54	0.12	4.2	5.46	70
11/15/2021	Detection	0.012 J1	0.28	8.03	0.07	3.5	2.90	90

Notes:

mg/L: milligrams per liter

SU: standard unit

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.

In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

- -: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-12
Pirkey - LF
Appendix IV Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/11/2016	Background	< 0.93 U1	< 1.05 U1	26	0.219521 J1	< 0.07 U1	0.710981 J1	1.58207 J1	0.2073	< 0.083 U1	< 0.68 U1	< 0.00013 U1	< 0.005 U1	< 0.29 U1	1.73953 J1	< 0.86 U1
7/13/2016	Background	< 0.93 U1	< 1.05 U1	23	0.190337 J1	< 0.07 U1	0.68835 J1	1.29444 J1	2.909	< 0.083 U1	< 0.68 U1	0.008	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
9/7/2016	Background	< 0.93 U1	< 1.05 U1	30	0.232192 J1	< 0.07 U1	0.353544 J1	1.66591 J1	0.881	< 0.083 U1	< 0.68 U1	0.01	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
10/12/2016	Background	< 0.93 U1	< 1.05 U1	27	0.149553 J1	< 0.07 U1	0.529033 J1	1.56632 J1	0.257	1	< 0.68 U1	0.012	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
11/14/2016	Background	< 0.93 U1	< 1.05 U1	28	0.152375 J1	< 0.07 U1	0.32826 J1	1.47282 J1	0.767	< 0.083 U1	< 0.68 U1	0.013	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
1/11/2017	Background	< 0.93 U1	< 1.05 U1	23	0.126621 J1	< 0.07 U1	0.650158 J1	1.09495 J1	1.536	< 0.083 U1	< 0.68 U1	0.01	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
2/28/2017	Background	< 0.93 U1	< 1.05 U1	26	0.149219 J1	< 0.07 U1	0.325811 J1	1.29984 J1	0.416	< 0.083 U1	< 0.68 U1	0.009	< 0.005 U1	< 0.29 U1	< 0.99 U1	0.994913 J1
4/11/2017	Background	< 0.93 U1	< 1.05 U1	24	0.159412 J1	< 0.07 U1	0.416007 J1	1.33344 J1	0.3895	0.2565 J1	< 0.68 U1	0.008	0.01364 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
3/21/2018	Assessment	< 0.93 U1	< 1.05 U1	25.82	0.16 J1	< 0.07 U1	1.05	1.49 J1	0.784	< 0.083 U1	< 0.68 U1	0.00722	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
8/20/2018	Assessment	< 0.01 U1	0.11	27.8	0.159	0.01 J1	0.330	1.72	1.128	< 0.083 U1	0.089	0.0143	< 0.005 U1	0.04 J1	0.1	0.04 J1
2/27/2019	Assessment	< 0.4 U1	< 0.6 U1	22.5	< 0.4 U1	< 0.2 U1	< 0.8 U1	1.37	0.225	0.09	< 0.4 U1	0.00688	< 0.005 U1	< 8 U1	< 0.6 U1	< 2 U1
5/21/2019	Assessment	< 0.4 U1	< 0.6 U1	21.7	< 0.4 U1	< 0.2 U1	< 0.8 U1	1.15	0.201	0.09	< 0.4 U1	0.00576	< 0.005 U1	< 8 U1	< 0.6 U1	< 0.1 U1

Notes:

µg/L: micrograms per liter

mg/L: milligrams per liter

pCi/L: picocuries per liter

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-16
Pirkey - LF
Appendix III Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
5/10/2016	Background	0.02	1.21	8	< 0.083 U1	3.9	16	116
7/14/2016	Background	0.03	2	9	< 0.083 U1	3.8	45	148
9/8/2016	Background	0.03	1.83	9	< 0.083 U1	3.9	33	133
10/13/2016	Background	0.03	1.15	9	< 0.083 U1	3.9	16	124
11/14/2016	Background	0.03	1.58	9	< 0.083 U1	4.4	23	124
1/12/2017	Background	0.02	1.76	10	< 0.083 U1	3.7	43	112
3/1/2017	Background	0.03	1.29	9	< 0.083 U1	3.2	22	108
4/10/2017	Background	0.02	1.21	11	< 0.083 U1	3.4	24	106
8/24/2017	Detection	0.03648	0.945	12	< 0.083 U1	4.3	14	96
3/22/2018	Assessment	0.0171	1.03	14	< 0.083 U1	4.0	13	96
8/21/2018	Assessment	0.020	1.17	17	< 0.083 U1	4.0	15	128
2/27/2019	Assessment	0.03 J1	0.704	20.3	0.07 J1	4.1	17.7	76
5/23/2019	Assessment	0.022	1.06	20.8	0.06 J1	4.6	26.9	128
8/15/2019	Detection	< 0.02 U1	0.874	20.0	0.06 J1	5.1	15.4	110
6/3/2020	Detection	< 0.02 U1	0.872	21.7	0.11	4.7	13.3	122
11/3/2020	Detection	< 0.02 U1	0.817	19.9	0.07	4.4	11.0	105
5/26/2021	Detection	0.016 J1	0.8	23.2	0.13	4.4	7.36	120
11/17/2021	Detection	0.206	0.94	22.3	0.07	4.3	9.64	110

Notes:

mg/L: milligrams per liter

SU: standard unit

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.

In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

- -: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-16
Pirkey - LF
Appendix IV Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/10/2016	Background	< 0.93 U1	1.83497 J1	61	0.453643 J1	0.0817904 J1	1	4.23727 J1	1.294	< 0.083 U1	< 0.68 U1	0.006	0.01506 J1	< 0.29 U1	2.26113 J1	1.3697 J1
7/14/2016	Background	< 0.93 U1	< 1.05 U1	64	0.565692 J1	< 0.07 U1	1	6	1.438	< 0.083 U1	< 0.68 U1	0.036	0.02395 J1	1.1177 J1	< 0.99 U1	< 0.86 U1
9/8/2016	Background	8	< 1.05 U1	70	0.810547 J1	0.0926258 J1	2	8	1.931	< 0.083 U1	< 0.68 U1	0.032	0.00753 J1	< 0.29 U1	< 0.99 U1	1.75243 J1
10/13/2016	Background	< 0.93 U1	1.52475 J1	56	0.250902 J1	< 0.07 U1	1	3.33761 J1	1.843	< 0.083 U1	< 0.68 U1	0.033	< 0.005 U1	< 0.29 U1	1.70284 J1	< 0.86 U1
11/14/2016	Background	< 0.93 U1	< 1.05 U1	55	0.38481 J1	< 0.07 U1	0.561291 J1	4.34297 J1	2.123	< 0.083 U1	< 0.68 U1	0.028	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
1/12/2017	Background	< 0.93 U1	< 1.05 U1	58	0.70928 J1	< 0.07 U1	0.406161 J1	8	2.629	< 0.083 U1	< 0.68 U1	0.031	0.01045 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
3/1/2017	Background	< 0.93 U1	1.50766 J1	76	0.487946 J1	< 0.07 U1	0.558767 J1	5	1.417	< 0.083 U1	< 0.68 U1	0.021	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
4/10/2017	Background	< 0.93 U1	< 1.05 U1	77	0.435552 J1	< 0.07 U1	0.822329 J1	5	0.932	< 0.083 U1	< 0.68 U1	0.019	0.00733 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
3/22/2018	Assessment	< 0.93 U1	< 1.05 U1	83.66	0.27 J1	< 0.07 U1	1.59	3.6 J1	2.11	< 0.083 U1	< 0.68 U1	0.02224	0.018 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
8/21/2018	Assessment	0.03 J1	0.42	69.0	0.213	0.03	0.211	3.78	1.92	< 0.083 U1	0.082	0.0347	0.014 J1	< 0.02 U1	0.1	0.051
2/27/2019	Assessment	< 0.4 U1	7.74	56.2	< 0.4 U1	< 0.2 U1	< 0.8 U1	3.21	0.848	0.07 J1	< 0.4 U1	0.0154	0.011 J1	< 8 U1	< 0.6 U1	< 2 U1
5/23/2019	Assessment	< 0.4 U1	5.80	83.4	< 0.4 U1	< 0.2 U1	< 0.8 U1	3.16	1.957	0.06 J1	< 0.4 U1	0.0227	< 0.005 U1	< 8 U1	< 0.6 U1	< 0.1 U1

Notes:

µg/L: micrograms per liter

mg/L: milligrams per liter

pCi/L: picocuries per liter

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-23
Pirkey - LF
Appendix III Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
5/10/2016	Background	0.01	0.535	4	< 0.083 U1	4.0	10	72
7/13/2016	Background	0.03	0.317	4	< 0.083 U1	2.7	11	59
9/8/2016	Background	0.02	0.26	5	< 0.083 U1	3.5	12	64
10/12/2016	Background	0.03	0.321	6	< 0.083 U1	3.7	13	68
11/15/2016	Background	0.03	0.249	5	< 0.083 U1	3.5	14	100
1/11/2017	Background	0.02	0.319	6	< 0.083 U1	3.7	13	60
2/28/2017	Background	0.03	0.217	4	< 0.083 U1	4.0	9	48
4/11/2017	Background	0.03	0.543	7	0.2688 J1	4.2	11	76
8/23/2017	Detection	0.04021	0.276	6	0.198 J1	4.1	11	64
12/21/2017	Detection	0.04498	0.469	--	--	--	--	--
3/21/2018	Assessment	0.01762	0.227	4	< 0.083 U1	3.9	10	72
8/20/2018	Assessment	0.017	0.247	9	< 0.083 U1	3.8	11	92
2/28/2019	Assessment	0.02 J1	0.3 J1	6.94	0.04 J1	5.1	7.2	70
5/23/2019	Assessment	0.017	0.3 J1	6.82	0.04 J1	4.8	9.1	54
8/13/2019	Detection	< 0.02 U1	0.325	7.12	0.03 J1	5.0	7.4	126
1/27/2020	Detection	--	--	--	--	4.3	--	70 J1
6/3/2020	Detection	< 0.02 U1	0.2 J1	7.08	0.07	4.3	8.5	65
11/4/2020	Detection	< 0.02 U1	0.2 J1	6.97	0.05 J1	3.9	7.9	71
5/26/2021	Detection	0.023 J1	0.3	6.94	0.06	3.6	7.90	70
11/17/2021	Detection	0.045 J1	0.22	7.11	0.05 J1	3.9	7.84	70

Notes:

mg/L: milligrams per liter

SU: standard unit

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.

In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-23
Pirkey - LF
Appendix IV Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/10/2016	Background	2.89148 J1	1.65098 J1	48	0.186855 J1	0.0739811 J1	2	2.29646 J1	6.86	< 0.083 U1	< 0.68 U1	0.000135818 J1	0.01188 J1	< 0.29 U1	1.91991 J1	< 0.86 U1
7/13/2016	Background	3.79558 J1	< 1.05 U1	48	0.192156 J1	0.0925427 J1	2	2.72879 J1	5.69	< 0.083 U1	< 0.68 U1	0.006	0.01721 J1	1.34973 J1	2.00038 J1	< 0.86 U1
9/8/2016	Background	< 0.93 U1	< 1.05 U1	53	0.20435 J1	< 0.07 U1	5	2.01019 J1	6.68	< 0.083 U1	2.23756 J1	0.006	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
10/12/2016	Background	1.29835 J1	7	120	0.463688 J1	0.13648 J1	41	3.91303 J1	12.89	< 0.083 U1	31	1.01	0.095	0.563586 J1	2.10924 J1	< 0.86 U1
11/15/2016	Background	< 0.93 U1	< 1.05 U1	50	0.129296 J1	< 0.07 U1	6	1.66943 J1	7.54	< 0.083 U1	3.21271 J1	0.006	0.02438 J1	0.403857 J1	1.34763 J1	< 0.86 U1
1/11/2017	Background	< 0.93 U1	2.03681 J1	73	0.159 J1	< 0.07 U1	15	2.25934 J1	8.06	< 0.083 U1	11	0.009	0.092	< 0.29 U1	< 0.99 U1	< 0.86 U1
2/28/2017	Background	1.65681 J1	< 1.05 U1	41	0.116844 J1	< 0.07 U1	0.295768 J1	1.05228 J1	5.74	< 0.083 U1	< 0.68 U1	0.005	< 0.005 U1	< 0.29 U1	1.3076 J1	< 0.86 U1
4/11/2017	Background	< 0.93 U1	3.9673 J1	86	0.318917 J1	0.107977 J1	22	2.60853 J1	10.31	0.2688 J1	15	0.01	0.118	0.31517 J1	< 0.99 U1	< 0.86 U1
3/21/2018	Assessment	< 0.93 U1	< 1.05 U1	56.1	0.17 J1	< 0.07 U1	5.7	1.09 J1	7.55	< 0.083 U1	3.52 J1	0.00709	0.02 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
8/20/2018	Assessment	0.03 J1	0.87	53.5	0.147	0.01 J1	1.77	0.803	11	< 0.083 U1	4.79	0.00634	0.025	0.07 J1	1.0	0.176
2/28/2019	Assessment	< 0.4 U1	1 J1	46.9	< 0.4 U1	< 0.2 U1	4.16	1 J1	6.14	0.04 J1	3.46	0.00646	0.035	< 8 U1	1 J1	< 2 U1
5/23/2019	Assessment	< 0.4 U1	0.7 J1	56.4	< 0.4 U1	< 0.2 U1	3 J1	0.7 J1	9.66	0.04 J1	8.99	0.00537	0.058 J1	< 8 U1	< 0.6 U1	0.2 J1

Notes:

µg/L: micrograms per liter

mg/L: milligrams per liter

pCi/L: picocuries per liter

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-27
Pirkey - LF
Appendix III Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
5/11/2016	Background	0.02	4.41	8	0.6176 J1	3.9	51	198
7/13/2016	Background	0.03	4.43	8	< 0.083 U1	2.7	54	192
9/8/2016	Background	0.03	4.17	8	< 0.083 U1	2.9	52	196
10/12/2016	Background	0.03	4.09	8	< 0.083 U1	3.0	58	216
11/15/2016	Background	0.03	4.52	8	< 0.083 U1	3.5	92	216
1/11/2017	Background	0.02	3.74	9	< 0.083 U1	4.1	58	180
3/1/2017	Background	0.03	4.31	8	< 0.083 U1	2.8	56	216
4/10/2017	Background	0.03	4.01	9	< 0.083 U1	3.3	54	180
8/24/2017	Detection	0.0358	3.58	9	0.197 J1	3.7	52	168
3/22/2018	Assessment	0.03901	5.58	11	< 0.083 U1	3.9	78	192
8/21/2018	Assessment	0.024	4.58	10	< 0.083 U1	3.5	65	196
2/28/2019	Assessment	0.07 J1	4.02	11.7	0.20	4.7	52.8	42
5/23/2019	Assessment	0.023	3.89	11.4	0.20	4.4	55.2	204
8/16/2019	Detection	0.02 J1	3.94	10.5	0.18	3.9	53.2	198
6/3/2020	Detection	0.03 J1	3.55	12.8	0.25	4.2	54.6	219
11/3/2020	Detection	0.03 J1	3.45	10.8	0.19	3.6	53.1	196
5/26/2021	Detection	0.029 J1	3.6	13.5	0.25	3.5	50.8	230
11/17/2021	Detection	0.040 J1	3.76	11.6	0.20	3.7	56.4	190 P1

Notes:

mg/L: milligrams per liter

SU: standard unit

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.

In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

P1: The precision between duplicate results was above acceptance limits.

Table 1 - Groundwater Data Summary: AD-27**Pirkey - LF****Appendix IV Constituents**

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/11/2016	Background	1.20808 J1	2.15232 J1	43	5	0.431235 J1	0.87101 J1	20	2.031	0.6176 J1	< 0.68 U1	0.066	< 0.005 U1	< 0.29 U1	1.10872 J1	< 0.86 U1
7/13/2016	Background	0.956365 J1	1.27952 J1	45	5	0.434627 J1	2	21	2.406	< 0.083 U1	< 0.68 U1	0.097	0.02241 J1	0.434679 J1	< 0.99 U1	< 0.86 U1
9/8/2016	Background	< 0.93 U1	< 1.05 U1	47	6	0.398469 J1	2	20	2.71	< 0.083 U1	< 0.68 U1	0.095	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
10/12/2016	Background	< 0.93 U1	2.14429 J1	46	5	0.424977 J1	2	20	4.43	< 0.083 U1	< 0.68 U1	0.096	< 0.005 U1	< 0.29 U1	1.35863 J1	< 0.86 U1
11/15/2016	Background	< 0.93 U1	< 1.05 U1	41	5	0.419182 J1	2	22	3.69	< 0.083 U1	< 0.68 U1	0.095	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
1/11/2017	Background	< 0.93 U1	1.56781 J1	46	5	0.30207 J1	1	18	2.62	< 0.083 U1	< 0.68 U1	0.1	0.00659 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
3/1/2017	Background	< 0.93 U1	< 1.05 U1	43	5	0.286804 J1	2	21	3.48	< 0.083 U1	< 0.68 U1	0.1	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
4/10/2017	Background	< 0.93 U1	< 1.05 U1	45	5	0.414787 J1	0.954802 J1	21	2.58	< 0.083 U1	< 0.68 U1	0.104	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
3/22/2018	Assessment	< 0.93 U1	< 1.05 U1	40.53	5.29	0.48 J1	3.09	25.63	2.808	< 0.083 U1	< 0.68 U1	0.108	0.012 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
8/21/2018	Assessment	0.02 J1	1.71	39.5	4.90	0.46	1.14	24.6	2.619	< 0.083 U1	0.296	0.0921	0.006 J1	0.07 J1	3.7	0.137
2/28/2019	Assessment	< 0.4 U1	1 J1	39.5	5.32	0.5 J1	< 0.8 U1	18.9	2.95	0.20	< 0.4 U1	0.0892	< 0.005 U1	< 8 U1	2 J1	< 2 U1
5/23/2019	Assessment	< 0.4 U1	< 0.6 U1	41.0	5.22	0.3 J1	< 0.8 U1	19.9	3.93	0.20	< 0.4 U1	0.0885	< 0.005 U1	< 8 U1	0.6 J1	0.2 J1

Notes:

µg/L: micrograms per liter

mg/L: milligrams per liter

pCi/L: picocuries per liter

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-34
Pirkey - LF
Appendix III Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
5/10/2016	Background	0.08	37.8	7	< 0.083 U1	4.0	974	1,516
7/13/2016	Background	0.111	33.2	8	< 0.083 U1	3.6	837	1,396
9/8/2016	Background	0.09	39.5	8	< 0.083 U1	3.3	870	1,520
10/12/2016	Background	0.09	35.8	7	0.6272 J1	3.6	1,084	1,464
11/15/2016	Background	0.1	36.3	7	0.9978 J1	3.7	1,006	1,428
1/11/2017	Background	0.07	39.9	8	< 0.083 U1	3.2	1,334	1,378
2/28/2017	Background	0.08	37	6	< 0.083 U1	3.7	993	1,402
4/10/2017	Background	0.09	38.2	8	0.5241 J1	3.0	1,016	1,490
8/23/2017	Detection	0.107	36.2	7	0.619 J1	3.7	1,231	1,128
12/21/2017	Detection	--	--	8	0.6669 J1	--	1,020	1,260
3/21/2018	Assessment	0.171	40.1	6	< 0.083 U1	3.7	956	1,424
8/20/2018	Assessment	0.067	37.0	10	< 0.083 U1	3.7	1,064	1,462
2/27/2019	Assessment	0.08 J1	39.9	7.64	0.86	2.9	970	1,470
5/21/2019	Assessment	0.060	42.0	7.34	0.69	3.3	1,080	1,154
8/13/2019	Detection	0.070	39.8	7.46	1.13	3.7	1,060	1,648
1/27/2020	Detection	--	--	--	0.9	3.6	--	1,550
3/11/2020	Detection	--	--	--	--	3.6	--	--
6/3/2020	Detection	0.058	40.1	7.68	1.22	3.4	1,150	1,620
7/15/2020	Detection	--	--	--	1.39	4.1	--	1,510
11/4/2020	Detection	0.060	39.5	7.10	0.82	3.4	1,090	1,670
5/26/2021	Detection	0.063	39.7	7.44	2.1	2.9	1,110	1,670
7/27/2021	Detection	--	--	--	0.82	--	--	--
11/17/2021	Detection	0.069	45.8	7.09	1.11	3.1	1,280	1,850

Notes:

mg/L: milligrams per liter

SU: standard unit

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.

In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-34
Pirkey - LF
Appendix IV Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/10/2016	Background	< 0.93 U1	12	72	3	6	34	301	9.64	< 0.083 U1	12	0.176	0.105	0.688222 J1	< 0.99 U1	< 0.86 U1
7/13/2016	Background	< 0.93 U1	25	177	4	6	81	296	7.75	< 0.083 U1	39	0.183	0.313	2.11044 J1	7	< 0.86 U1
9/8/2016	Background	< 0.93 U1	9	31	3	8	12	306	7.91	< 0.083 U1	1.01746 J1	0.158	0.064	< 0.29 U1	< 0.99 U1	< 0.86 U1
10/12/2016	Background	< 0.93 U1	10	39	3	5	15	297	10.12	0.6272 J1	3.69632 J1	0.174	0.036	< 0.29 U1	< 0.99 U1	< 0.86 U1
11/15/2016	Background	< 0.93 U1	7	23	2	8	6	292	13.21	0.9978 J1	< 0.68 U1	0.154	0.025	< 0.29 U1	4.50827 J1	< 0.86 U1
1/11/2017	Background	< 0.93 U1	6	29	2	7	8	284	11.9	< 0.083 U1	< 0.68 U1	0.164	0.032	< 0.29 U1	< 0.99 U1	< 0.86 U1
2/28/2017	Background	< 0.93 U1	7	11	2	6	< 0.23 U1	294	9.87	< 0.083 U1	< 0.68 U1	0.158	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
4/10/2017	Background	< 0.93 U1	4.49903 J1	23	2	11	7	299	2.407	0.5241 J1	< 0.68 U1	0.167	0.0164 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
3/21/2018	Assessment	< 0.93 U1	6.51	10.6	2.24	11.97	< 0.23 U1	279	8.85	< 0.083 U1	< 0.68 U1	0.156	< 0.005 U1	< 0.29 U1	3.24 J1	< 0.86 U1
8/20/2018	Assessment	0.01 J1	14.4	7.77	1.77	4.34	0.977	249	10.17	< 0.083 U1	1.32	0.114	0.005 J1	0.03 J1	13.0	0.070
2/27/2019	Assessment	< 0.4 U1	15.9	9.93	2.42	4.57	0.9 J1	260	8.56	0.86	1 J1	0.153	0.015 J1	< 8 U1	14.8	< 2 U1
5/21/2019	Assessment	< 0.4 U1	12.7	10.5	2.25	4.48	0.8 J1	272	10.82	0.69	1 J1	0.158	< 0.005 U1	< 8 U1	4.9	< 0.1 U1

Notes:

µg/L: micrograms per liter

mg/L: milligrams per liter

pCi/L: picocuries per liter

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: AD-36
Pirkey - LF
Appendix III Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
8/13/2019	Background	0.065	0.240	9.46	0.05 J1	4.7	2.2	92
1/27/2020	Background	0.056	0.304	8.65	0.05 J1	4.7	3.5	40 J1
3/11/2020	Background	0.05 J1	0.2 J1	8.44	0.06	5.0	3.7	60 J1
4/15/2020	Background	0.054	0.2 J1	8.40	0.05 J1	3.6	3.7	40 J1
5/13/2020	Background	0.055	0.2 J1	8.56	0.05 J1	4.1	3.4	40 J1
6/3/2020	Background	0.052	0.2 J1	8.52	0.07	4.6	3.3	65
6/16/2020	Background	0.064	0.2 J1	8.39	0.05 J1	4.6	3.6	50 J1
7/1/2020	Background	0.059	0.3 J1	--	--	4.9	--	52
7/15/2020	Background	--	--	8.09	0.08	5.0	3.7	--
11/4/2020	Detection	0.068	0.2 J1	7.99	0.06 J1	4.6	3.1	57
5/26/2021	Detection	0.057	0.6	10.6	0.10	4.0	4.08	60
7/27/2021	Detection	--	0.3	8.67	0.07	--	--	--
11/17/2021	Detection	0.070	0.25	8.97	0.05 J1	4.0	2.89	50 P1

Notes:

mg/L: milligrams per liter

SU: standard unit

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.

In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

P1: The precision between duplicate results was above acceptance limits.

Table 1 - Groundwater Data Summary: AD-36
Pirkey - LF
Appendix IV Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
8/13/2019	Background	< 0.02 U1	0.15	10.8	0.234	< 0.01 U1	0.203	0.901	1.298	0.05 J1	< 0.05 U1	0.0161	< 0.005 U1	< 0.4 U1	0.09 J1	< 0.1 U1
1/27/2020	Background	< 0.02 U1	0.14	9.94	0.191	0.01 J1	0.09 J1	0.762	1.096	0.05 J1	< 0.05 U1	0.00277	< 0.2 U1	< 0.4 U1	0.07 J1	< 0.1 U1
3/11/2020	Background	< 0.02 U1	0.09 J1	10.2	0.184	< 0.01 U1	< 0.04 U1	0.760	4.056	0.06	< 0.05 U1	0.00246	< 0.002 U1	< 0.4 U1	0.1 J1	< 0.1 U1
4/15/2020	Background	< 0.02 U1	0.10	10.1	0.179	< 0.01 U1	0.1 J1	0.770	2.84	0.05 J1	< 0.05 U1	0.00210	0.003 J1	0.8 J1	0.09 J1	< 0.1 U1
5/13/2020	Background	< 0.02 U1	0.15	10.2	0.194	< 0.01 U1	0.247	0.750	2.346	0.05 J1	< 0.05 U1	0.00266	0.004 J1	< 0.4 U1	0.08 J1	< 0.1 U1
6/3/2020	Background	< 0.02 U1	0.11	9.81	0.204	< 0.01 U1	0.08 J1	0.683	0.692	0.07	< 0.05 U1	0.00262	0.005 J1	< 0.4 U1	0.09 J1	< 0.1 U1
6/16/2020	Background	< 0.02 U1	0.11	9.75	0.173	< 0.01 U1	0.214	0.723	0.885	0.05 J1	0.08 J1	0.00254	0.003 J1	1 J1	0.1 J1	< 0.1 U1
7/1/2020	Background	< 0.02 U1	0.09 J1	9.72	0.179	< 0.01 U1	0.09 J1	0.681	1.171	--	< 0.05 U1	0.00268	0.004 J1	< 0.4 U1	0.06 J1	< 0.1 U1
7/15/2020	Background	--	--	--	--	--	--	--	--	0.08	--	--	--	--	--	--

Notes:

µg/L: micrograms per liter

mg/L: milligrams per liter

pCi/L: picocuries per liter

<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.

--: Not analyzed

J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

APPENDIX 2- Statistical Analyses

The memorandums summarizing the statistical evaluation follow.

Memorandum

Date: February 22, 2021

To: David Miller (AEP)

Copies to: Leslie Fuerschbach (AEP)

From: Allison Kreinberg (Geosyntec)

Subject: Evaluation of Detection Monitoring Data at Pirkey Plant's Landfill

In accordance with the United States Environmental Protection Agency's (USEPA's) regulations regarding the disposal of coal combustion residuals (CCR) in landfills and surface impoundments (40 CFR 257 Subpart D, "CCR rule"), the second semi-annual detection monitoring event of 2020 at the Landfill, an existing CCR unit at the Pirkey Power Plant located in Hallsville, Texas, was completed on November 4, 2020.

Background values (prediction limits) for the LF were previously calculated in January 2018. An alternative source demonstration (ASD) was certified on January 7, 2020 which resulted in a revision from interwell tests to introwell tests for the pH, sulfate, and TDS prediction limits. After a minimum of four detection monitoring events, the results of those events were compared to the existing background and the dataset was updated as appropriate. Revised upper prediction limits (UPLs) were calculated for each Appendix III parameter to represent background values. Lower prediction limits (LPLs) were also calculated for pH. Details on the calculation of these revised background values are described in Geosyntec's *Statistical Analysis Summary* report, dated January 27, 2021.

To achieve an acceptably high statistical power while maintaining a site-wide false-positive rate (SWFPR) of 10% per year or less, prediction limits were calculated based on a one-of-two retesting procedure. With this procedure, a statistically significant increase (SSI) is only concluded if both samples in a series of two exceeds the UPL (or are below the LPL for pH). In practice, if the initial result did not exceed the UPL, a second sample was not collected or analyzed.

Detection monitoring results and the relevant background values are compared in Table 1. No SSIs were observed at the Pirkey LF CCR unit, and as a result the Pirkey LF will remain in detection monitoring. The statistical analysis was conducted within 90 days of completion of

Evaluation of Detection Monitoring Data – Pirkey Landfill

February 22, 2021

Page 2

sampling and analysis in accordance with 40 CFR 257.93(h)(2). A certification of these statistics by a qualified professional engineer is provided in Attachment A.

Table 1: Detection Monitoring Data Evaluation
Pirkey - Landfill

Geosyntec Consultants, Inc.

Analyte	Unit	Description	AD-23	AD-34	AD-36
			11/4/2020	11/4/2020	11/4/2020
Boron	mg/L	Intrawell Background Value (UPL)	0.0433	0.145	0.0702
		Analytical Result	0.02	0.060	0.068
Calcium	mg/L	Intrawell Background Value (UPL)	0.536	42.8	0.304
		Analytical Result	0.2	39.5	0.2
Chloride	mg/L	Intrawell Background Value (UPL)	8.88	9.35	9.54
		Analytical Result	6.97	7.10	7.99
Fluoride	mg/L	Intrawell Background Value (UPL)	1.00	1.29	0.0800
		Analytical Result	0.05	0.82	0.06
pH	SU	Intrawell Background Value (UPL)	5.2	4.2	5.7
		Intrawell Background Value (LPL)	2.8	2.9	3.5
		Analytical Result	3.9	3.4	4.6
Sulfate	mg/L	Intrawell Background Value (UPL)	14.5	1,280	4.20
		Analytical Result	7.9	1,090	3.1
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	111	1,700	98.5
		Analytical Result	71	1,670	57

Notes:

UPL: Upper prediction limit

LPL: Lower prediction limit

Bold values exceed the background value.

Background values are shaded gray.

ATTACHMENT A

Certification by a Qualified Professional Engineer

CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

I certify that the selected statistical method, described above and in the January 27, 2021 *Statistical Analysis Summary* report, is appropriate for evaluating the groundwater monitoring data for the Pirkey Landfill CCR management area and that the requirements of 40 CFR 257.93(f) have been met.

DAVID ANTHONY MILLER

Printed Name of Licensed Professional Engineer

David Anthony Miller

Signature

112498

License Number

TEXAS

Licensing State



03.03.21

Date

Memorandum

Date: September 10, 2021

To: David Miller (AEP)

Copies to: Leslie Fuerschbach (AEP)

From: Allison Kreinberg (Geosyntec)

Subject: Evaluation of Detection Monitoring Data at Pirkey Plant's Landfill

In accordance with the Texas Commission on Environmental Quality's (TCEQ's) regulations regarding the disposal of coal combustion residuals (CCR) in landfills and surface impoundments (30 TAC 352, "CCR rule"), the first semi-annual detection monitoring event of 2021 at the Landfill, an existing CCR unit at the Pirkey Power Plant located in Hallsville, Texas, was completed on May 26, 2021. Based on the results, a two-of-two verification sampling was completed on July 26, 2021.

Background values (prediction limits) for the LF were previously calculated in January 2018. An alternative source demonstration (ASD) was certified on January 7, 2020 which resulted in a revision from interwell tests to introwell tests for the pH, sulfate, and TDS prediction limits. After a minimum of four detection monitoring events, the results of those events were compared to the existing background and the dataset was updated as appropriate. Revised upper prediction limits (UPLs) were calculated for each Appendix III parameter to represent background values. Lower prediction limits (LPLs) were also calculated for pH. Details on the calculation of these revised background values are described in Geosyntec's *Statistical Analysis Summary* report, dated January 27, 2021.

To achieve an acceptably high statistical power while maintaining a site-wide false-positive rate (SWFPR) of 10% per year or less, prediction limits were calculated based on a one-of-two retesting procedure. With this procedure, a statistically significant increase (SSI) is only concluded if both samples in a series of two exceeds the UPL (or are below the LPL for pH). In practice, if the initial result did not exceed the UPL, a second sample was not collected or analyzed.

Detection monitoring results and the relevant background values are compared in Table 1. No SSIs were observed at the Pirkey LF CCR unit, and as a result the Pirkey LF will remain in

Evaluation of Detection Monitoring Data – Pirkey Landfill

September 10, 2021

Page 2

detection monitoring. The statistical analysis was conducted in accordance with 30 TAC 352.931 and completed within 90 days of sampling and analysis. A certification of these statistics by a qualified professional engineer is provided in Attachment A.

**Table 1: Detection Monitoring Data Evaluation
Pirkey - Landfill**

Geosyntec Consultants, Inc.

Analyte	Unit	Description	AD-23	AD-34		AD-36	
			5/26/2021	5/26/2021	7/27/2021	5/26/2021	7/27/2021
Boron	mg/L	Intrawell Background Value (UPL)	0.0433	0.145		0.0702	
		Analytical Result	0.023	0.063	--	0.057	--
Calcium	mg/L	Intrawell Background Value (UPL)	0.536	42.8		0.304	
		Analytical Result	0.3	39.7	--	0.6	0.3
Chloride	mg/L	Intrawell Background Value (UPL)	8.88	9.35		9.54	
		Analytical Result	6.94	7.44	--	10.6	8.67
Fluoride	mg/L	Intrawell Background Value (UPL)	1.00	1.29		0.0800	
		Analytical Result	0.06	2.1	0.82	0.10	0.07
pH	SU	Intrawell Background Value (UPL)	5.2	4.2		5.7	
		Intrawell Background Value (LPL)	2.8	2.9		3.5	
		Analytical Result	3.6	2.9	--	4.0	--
Sulfate	mg/L	Intrawell Background Value (UPL)	14.5	1,280		4.20	
		Analytical Result	7.90	1,110	--	4.08	--
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	111	1,700		98.5	
		Analytical Result	70	1,670	--	60	--

Notes:

UPL: Upper prediction limit

LPL: Lower prediction limit

Bold values exceed the background value.

Background values are shaded gray.

ATTACHMENT A

Certification by a Qualified Professional Engineer

CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

I certify that the selected statistical method, described above and in the January 27, 2021 *Statistical Analysis Summary* report, is appropriate for evaluating the groundwater monitoring data for the Pirkey Landfill CCR management area and that the requirements of 30 TAC 352.931(a) have been met.

DAVID ANTHONY MILLER

Printed Name of Licensed Professional Engineer

David Anthony Miller

Signature

112498

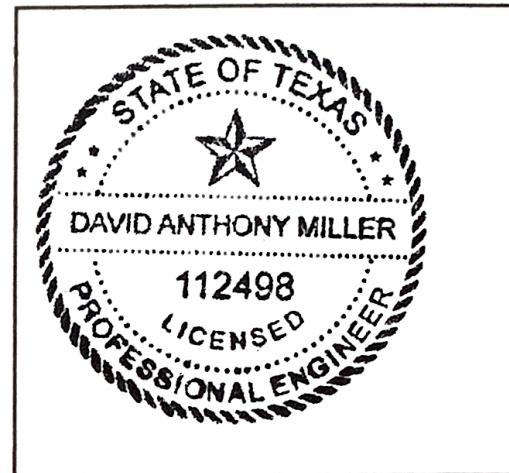
License Number

TEXAS

Licensing State

09.27.21

Date



APPENDIX 3- Alternate Source Demonstrations

No new alternate source demonstrations have been completed as of January 31, 2022.

APPENDIX 4- Field Sheets

Facility Name	AEP Plant 9 PP
Sample by	Kerry Mc Dentell
Depth to water, feet (TOC)	11.26
Measured Total Depth, feet (TOC)	31.33

Sample Location ID	AP-8
Depth to water date	05/26/21

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (μ S/cm)	Turbidity (N.T.U.)	D.O. (mg/L)	ORP (mV)	Temperature (°C)
08:55	11.30	180	5.68	512	88.7	8.92	291	23.01
09:00	11.31	180	5.88	545	81.4	4.61	284	22.86
09:05	11.30	180	5.86	548	44.9	4.90	280	23.04
09:10	11.30	180	5.87	548	44.1	4.35	278	23.21

Total volume purged	CLEAN
Sample appearance	0912
Sample time	05/26/21
Sample date	DUPLICATE - 3

1200

Facility Name	Diviney
Sample by	Watt/Han
Depth to water, feet (TOC)	25.78
Measured Total Depth, feet (TOC)	38.20

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (μ S/cm)	Turbidity (N.T.U.)	D.O. (mg/l)	ORP (mV)	Temperature (°C)
10:55	30.17	220	3.57	332	281	3.71	352	26.87
11:00	30.18	11	3.36	132	281	3.30	364	25.21
11:05	30.19	11	3.44	73	177	3.14	358	23.62
11:10	30.19	11	3.51	78	142	3.05	353	23.31
11:15	30.20	11	3.54	75	125	2.68	360	23.15
11:20	30.20	11	3.58	73	124	2.45	365	22.49
11:25	30.21	11	3.60	73	123	2.44	360	22.89
11:30	30.22	11	3.61	72	124	2.43	367	22.82
11:35	30.22	11	3.62	71	124	2.43	372	22.81

Total volume purged

Sample appearance

Colorless / cloudy
1137
5-26-21

Sample time

Sample date

Sample Location ID	AD-23
Depth to water date	5-26-21

Facility Name	P.Meadow
Sample by	Hunt / Heselton
Depth to water, feet (TOC)	15.37
Measured Total Depth, feet (TOC)	46.07

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U.)	D.O. (mg/L)	ORP (mV)	Temperature (°C)
12:05	15.73	300	3.35	231	70	1.54	371	25.67
12:10	15.78	300	3.15	242	52	0.98	365	24.42
12:15	15.81	300	3.28	243	34	0.78	355	24.36
12:20	15.83	300	3.35	244	33	0.67	346	24.30
12:25	15.84	300	3.31	245	34	0.66	340	24.22
12:30	15.85	300	3.43	245	34	0.64	337	24.17
12:35	15.85	300	3.46	245	34	0.65	335	24.15

Total volume purged	
Sample appearance	clear
Sample time	12:37
Sample date	5-26-21

Sample Location ID	AD.27
Depth to water date	5-26-21

Facility Name	Aero Filtration P1
Sample by	Karen McDonald
Depth to water, feet (TOC)	TOC
Measured Total Depth, feet (TOC)	26.05

Sample Location ID	A0-39
Depth to water date	05/26/21

Purge Stabilization Data						
Time	Water Depth (from TOC)	Flow Rate (ml/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U.)	D.O. (mg/L)
1026	0.52	140	3.07	1680	0.0	3.73
1031	0.91	140	2.98	1710	0.0	3.86
1036	1.09	140	2.94	1680	0.0	3.43
1041	1.17	140	2.92	1630	0.0	1.40
						24.28
						24.03
						23.91
						23.86

Total volume purged	1641 ml
Sample appearance	Cloudy
Sample time	1043
Sample date	05/26/21

Facility Name	HCP Pictou
Sample by	Kerry McDonald
Depth to water, feet (TOC)	6.98
Measured Total Depth, feet (TOC)	17.10

Sample Location ID	AP-36
Depth to water date	05/26/21

Purge Stabilization Data						
Time	Water Depth (from TOC)	Flow Rate (ml/min)	pH (S.U.)	Spec Cond (μ S/cm)	Turbidity (N.T.U.)	D.O. (mg/L)
0937	7.01	140	4.84	96	9.7	7.02
0942	7.00	140	4.19	82	0.0	5.10
0947	7.00	140	4.03	78	0.0	4.13
0952	7.02	140	3.99	76	0.0	3.92
0957	7.00	140	3.97	74	0.0	3.77

Total volume purged	
Sample appearance	Clear
Sample time	0959
Sample date	05/26/21

Facility Name	Parkview
Sample by	Mark Hamill
Depth to water, feet (TOC)	6.78
Measured Total Depth, feet (TOC)	7.21

Sample Location ID	AD-36
Depth to water date	7.27.21

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (μ S/cm)	Turbidity (N.T.U.)	D.O. (mg/L)	ORP (mV)	Temperature (°C)
952	7.21	22.5	5.14	106	14.3	2.12	335	21.58
957	7.28	22.5	4.12	73	1.1	0.71	360	27.53
1002	7.23	22.5	3.56	67	0.9	0.55	361	26.71
1007	7.24	22.5	3.44	15	1.8	0.51	362	26.43

Total volume purged	
Sample appearance	clear
Sample time	1009
Sample date	7.27.21

No lock on well

Coliform
Chloride
Fluoride

Facility Name	Pilkey
Sample by	Hunt Hsu
Depth to water, feet (TOC)	23.67
Measured Total Depth, feet (TOC)	52.00

Purge Stabilization Data	
Time	Water Depth (from TOC)
1012	24.12
1017	24.47
1022	24.44
1027	24.53

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond ($\mu\text{S}/\text{cm}$)	Turbidity (N.T.U.)	D.O. (mg/L)	ORP (mV)	Temperature (°C)
1012	24.12	304	3.48	67	10.3	2.55	231	21.74
1017	24.47	300	3.61	65	18.7	1.7	256	22.18
1022	24.44	301	3.50	65	7.5	1.87	251	22.31
1027	24.53	300	3.47	65	7.4	1.85	248	22.39

Total volume purged	
Sample appearance	clear
Sample time	1029
Sample date	11-15-21

Facility Name	Plummet
Sample by	H.A. Hamilton
Depth to water, feet (TOC)	26.61
Measured Total Depth, feet (TOC)	38.20

Sample Location ID	A11-23
Depth to water date	11.17.21

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (μ S/cm)	Turbidity (N.T.U.)	D.O. (mg/L)	ORP (mV)	Temperature (°C)
1-33	25.87	220	4.07	217	26.0	4.57	274	24.31
1-38	25.88	220	4.06	15	22.8	3.46	284	22.95
1-43	25.50	220	3.56	81	13.3	2.74	244	23.11
1-48	21.90	220	3.53	74	93.3	2.66	297	23.50
1-53	26.90	220	3.62	78	95.4	2.59	300	22.95

Total volume purged
Sample appearance
Sample time
Sample date

Cloudy Turbid 1:55 11-17-21

Facility Name	1400 Park PP
Sample by	CWY mDwntd
Depth to water, feet (TOC)	0.41
Measured Total Depth, feet (TOC)	26.05

Sample Location ID	A0-34
Depth to water date	11/17/21

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U.)	D.O. (mg/L)	ORP (mV)	Temperature (°C)
0909	0.93	160	3.08	1720	44.4	4.56	419	23.12
0914	1.02	150	3.07	1730	29.3	3.68	411	23.16
0919	1.09	150	3.08	1750	24.2	3.59	406	23.21

Total volume purged	1.1mL
Sample appearance	Cloudy
Sample time	0921
Sample date	11/17/21

Duplicate - 3
1200

Facility Name	A1P PINKY
Sample by	Karen M (Dorard)

Depth to water, feet (TOC)	7.54
Measured Total Depth, feet (TOC)	17.10

Sample Location ID	A0-36
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Depth to water date	1/17/21
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Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U.)	D.O. (mg/L)	ORP (mV)	Temperature (°C)
0956	7.68	150	3.78	116	8.4	5.47	373	25.92
1001	7.68	150	3.95	102	5.5	2.97	355	26.06
1006	7.69	150	3.99	83	4.1	1.54	346	26.19
1011	7.70	150	4.00	81	4.0	1.48	342	26.19
1016	7.70	150	4.01	78	4.3	1.47	339	26.22

Total volume purged	15.1
Sample appearance	Clean
Sample time	10:18
Sample date	1/17/21

APPENDIX 5- Analytical Laboratory Reports



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-001

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-2

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.33	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	29.8	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.22	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	215	mg/L	10	2.0	0.3		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	30	mg/L	1	50	20	J1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	430	mg/L	1	50	20		SDW	05/29/2021	SM 2540C-2011
TSS, Non-Filterable Residue	<0.3	mg/L	0.13	1.3	0.3	U1	SDW	05/29/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-002

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-3

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.07	mg/L	2	0.10	0.02	J1	CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	6.06	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.08	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	28.8	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	6	mg/L	1	20	5	J1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	150	mg/L	1	50	20		SDW	05/29/2021	SM 2540C-2011
TSS, Non-Filterable Residue	4.9	mg/L	0.22	2.2	0.4		SDW	05/29/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-003

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-4

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.23	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	3.60	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.14	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	22.6	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	8	mg/L	1	20	5	J1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	150	mg/L	1	50	20		SDW	05/29/2021	SM 2540C-2011
TSS, Non-Filterable Residue	4.7	mg/L	0.22	2.2	0.4		SDW	05/29/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-004

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-7

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	2.62	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	28.4	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.54	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	64.6	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	50	mg/L	1	50	20		GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	250	mg/L	1	50	20		SDW	05/29/2021	SM 2540C-2011
TSS, Non-Filterable Residue	<0.3	mg/L	0.14	1.4	0.3	U1	SDW	05/29/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-005

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-12

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.04	mg/L	2	0.10	0.02	J1	CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	5.54	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.12	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	5.46	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	70	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	<0.3	mg/L	0.14	1.4	0.3	U1	HRF	05/28/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-006

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-13

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.31	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	41.6	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.48	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	78.6	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	30	mg/L	1	50	20	J1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	60	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	57.8	mg/L	0.20	2.0	0.4		HRF	05/28/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-007

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-17

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.11	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	9.30	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.17	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	2.66	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	60	mg/L	1	50	20		SDW	05/29/2021	SM 2540C-2011
TSS, Non-Filterable Residue	<0.6	mg/L	0.29	2.9	0.6	U1	SDW	05/29/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-008

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-18

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.06	mg/L	2	0.10	0.02	J1	CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	7.16	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.02	mg/L	2	0.06	0.01	J1	CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	7.46	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	100	mg/L	1	50	20	P1	SDW	05/29/2021	SM 2540C-2011
TSS, Non-Filterable Residue	3.2	mg/L	0.17	1.7	0.3		SDW	05/29/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-009

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-22

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.40	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	60.6	mg/L	10	0.20	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	1.24	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	327	mg/L	10	2.0	0.3		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	120	mg/L	1	50	20		GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	290	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	4.7	mg/L	0.12	1.2	0.2		HRF	05/28/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-010

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-28

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.09	mg/L	2	0.10	0.02	J1	CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	4.92	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	1.0	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	27.6	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	20	mg/L	1	50	20	J1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	110	mg/L	1	50	20		SDW	05/29/2021	SM 2540C-2011
TSS, Non-Filterable Residue	<0.3	mg/L	0.17	1.7	0.3	U1	SDW	05/29/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-011

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-30

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.37	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	22.8	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.08	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	113	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	240	mg/L	1	50	20		SDW	05/29/2021	SM 2540C-2011
TSS, Non-Filterable Residue	<0.3	mg/L	0.17	1.7	0.3	U1	SDW	05/29/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-012

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-31

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.34	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	18.1	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.17	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	86.4	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	30	mg/L	1	50	20	J1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	130	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	1.4	mg/L	0.14	1.4	0.3		HRF	05/28/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-013

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-32

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.63	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	25.4	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	1.25	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	452	mg/L	25	5.0	0.8		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	110	mg/L	1	50	20		GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	340	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	4.2	mg/L	0.14	1.4	0.3		HRF	05/28/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-014

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-33

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.28	mg/L	2	0.10	0.02		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	8.56	mg/L	2	0.04	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.29	mg/L	2	0.06	0.01		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	60.4	mg/L	2	0.40	0.06		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	30	mg/L	1	50	20	J1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	100	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	<0.2	mg/L	0.11	1.1	0.2	U1	HRF	05/28/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID: Duplicate-1

Customer Description:

Lab Number: 215073-015

Sampling Point:

Date Collected: 05/24/2021

Date Received: 05/28/2021

Preparation:

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.40	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	63.8	mg/L	25	0.5	0.2		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	1.27	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	355	mg/L	25	5.0	0.8		CRJ	06/08/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	130	mg/L	1	50	20		GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	320	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	4.4	mg/L	0.13	1.3	0.3		HRF	05/28/2021	SM 2540D-2011

Customer Sample ID:

Customer Description:

Lab Number: 215073-016

Sampling Point: B-2

Date Collected: 05/24/2021

Date Received: 05/28/2021

Preparation:

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.06	mg/L	2	0.10	0.02	J1	CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	6.92	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.25	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	27.8	mg/L	2	0.40	0.06		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	160	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	20.6	mg/L	0.16	1.6	0.3		HRF	05/28/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-017

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: B-3

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.10	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	13.9	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.11	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	94.2	mg/L	2	0.40	0.06		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	13	mg/L	1	20	5	J1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	240	mg/L	1	50	20		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	1.3	mg/L	0.12	1.2	0.2	S6	SDW	06/01/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-018

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-7R

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.59	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	15.3	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.20	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	81.6	mg/L	2	0.40	0.06		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	30	mg/L	1	50	20	J1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	240	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	11.8	mg/L	0.12	1.2	0.2		HRF	05/28/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-019

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-25

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.08	mg/L	2	0.10	0.02	J1	CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	3.12	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	1.68	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	795	mg/L	25	5.0	0.8		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	400	mg/L	1	50	20		GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	1250	mg/L	1	50	20		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	1.6	mg/L	0.20	2.0	0.4	S6, J1	SDW	06/01/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-020

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-26

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.46	mg/L	5	0.25	0.05		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	17.8	mg/L	5	0.10	0.03		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	4.01	mg/L	5	0.15	0.04		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	1460	mg/L	50	10	2		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	530	mg/L	1	50	20		GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	2100	mg/L	2	100	40		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	3.0	mg/L	0.20	2.0	0.4	S6	SDW	06/01/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID: Duplicate-2

Customer Description:

Lab Number: 215073-021

Sampling Point:

Date Collected: 05/24/2021

Date Received: 05/28/2021

Preparation:

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.61	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	15.1	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.20	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	80.4	mg/L	2	0.40	0.06		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	230	mg/L	1	50	20		HRF	05/28/2021	SM 2540C-2011
TSS, Non-Filterable Residue	10.6	mg/L	0.12	1.2	0.2		HRF	05/28/2021	SM 2540D-2011

Customer Sample ID:

Customer Description:

Lab Number: 215073-022

Sampling Point: AD-8

Date Collected: 05/26/2021

Date Received: 05/28/2021

Preparation:

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.11	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	3.28	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.35	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	168	mg/L	10	2.0	0.3		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	112	mg/L	1	20	5		GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	390	mg/L	1	50	20		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	8.8	mg/L	0.20	2.0	0.4		SDW	06/01/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-023

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-16

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.19	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	23.2	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.13	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	7.36	mg/L	2	0.40	0.06		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	120	mg/L	1	50	20		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	3.8	mg/L	0.20	2.0	0.4		SDW	06/01/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-024

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-23

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.19	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	6.94	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.06	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	7.90	mg/L	2	0.40	0.06		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	70	mg/L	1	50	20		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	632	mg/L	1	10	2		SDW	06/01/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-025

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-27

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.31	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	13.5	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.25	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	50.8	mg/L	2	0.40	0.06		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	40	mg/L	1	50	20	J1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	230	mg/L	1	50	20		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	61.2	mg/L	0.20	2.0	0.4		SDW	06/01/2021	SM 2540D-2011

Customer Sample ID:

Lab Number: 215073-026

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-34

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.21	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	7.44	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	2.1	mg/L	25	0.8	0.2		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	1110	mg/L	25	5.0	0.8		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	840	mg/L	1	50	20		GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	1670	mg/L	1	50	20		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	0.3	mg/L	0.17	1.7	0.3	S6, J1	SDW	06/01/2021	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Customer Sample ID:

Lab Number: 215073-027

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-36

Date Received: 05/28/2021

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.59	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	10.6	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.10	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	4.08	mg/L	2	0.40	0.06		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	60	mg/L	1	50	20		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	<0.3	mg/L	0.17	1.7	0.3	S6, U1	SDW	06/01/2021	SM 2540D-2011

Customer Sample ID: Duplicate-3

Customer Description:

Lab Number: 215073-028

Sampling Point:

Date Collected: 05/26/2021

Date Received: 05/28/2021

Preparation:

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.10	mg/L	2	0.10	0.02		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Chloride	3.28	mg/L	2	0.04	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.35	mg/L	2	0.06	0.01		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0
Sulfate	172	mg/L	25	5.0	0.8		CRJ	06/09/2021	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	06/02/2021	SM 2310B-2011
Alkalinity, as CaCO ₃	109	mg/L	1	20	5		GES	06/03/2021	SM 2320B-2011
TDS, Filterable Residue	380	mg/L	1	50	20		SDW	06/01/2021	SM 2540C-2011
TSS, Non-Filterable Residue	8.2	mg/L	0.18	1.8	0.4		SDW	06/01/2021	SM 2540D-2011



Water Analysis Report

Job ID: 215073

Customer: Pirkey Power Station

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Date Reported: 06/25/2021

Report Verification

This report and the above data have been confirmed by the following analyst.

Jonathan Barnhill, Dolan Chemical Lab
Supervisor

Email: jdbarnhill@aep.com

Phone: 614-836-4256

Audinet: 8-210-4256

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

Data Qualifier Legend

- B1 Analyte detected in method blank (MB) at or above the method criteria.
- B2 Analyte detected in initial calibration blank (ICB) at or above the method criteria.
- B3 Analyte detected in continuing calibration blank (CCB) at or above the method criteria.
- B4 The interference check standard (ICS) exceeded the method criteria on this parameter.
- H1 Sample was received past holding time.
- H2 Sample analysis performed past holding time.
- J1 Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
- J2 Concentration estimated. Analyte exceeded calibration range.
- L1 The associated laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) recovery was outside acceptance limits.
- M1 The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.
- M2 Analyzed by method of standard additions (MSA).
- O1 The reporting limit for oil and grease is directly affected by the collected sample volume.
- O2 Client did not provide additional bottles; therefore, the MS and duplicate are missing in this batch.
- O3 Client did not provide additional bottles; therefore, the duplicate is missing in this batch.
- O4 Sample was transferred to a different bottle due to excess fine particulate. The particulate was rinsed with hexane, and the hexane layer was transferred to the corresponding bottle. The hexane rinse was completed three times.
- P1 The precision between duplicate results was above acceptance limits.
- P2 The precision on the laboratory control sample duplicate (LCSD) was above acceptance limits.
- P3 The precision on the matrix spike duplicate (MSD) was above acceptance limits.
- P4 The precision on the inorganic efficiency check (IEC) exceeded the method criteria.
- Q1 Sample received in inappropriate sample container.
- Q2 Sample was received damaged. The sample was recoverable.
- Q3 Sample container was received damaged. Unable to recover the sample.
- Q4 Sample was received outside of thermal preservation range.
- Q5 Sample was received with improper chemical preservation.
- Q6 Insufficient sample was received by the laboratory to perform the requested analysis.
- Q7 Insufficient sample was received to meet method QC requirements.
- Q8 Sample was received with head space.
- Q9 Due to instrument malfunction, sample was invalidated.
- Q10 Analysis was performed by a contracted laboratory. See attached report.
- Q11 Sample contains free liquid.
- Q12 Sample does not contain free liquid.
- Q13 Sample did not ignite.
- Q14 This analyte and method are not included on the primary Laboratory Scope of TNI Accreditation.
- R1 Surrogate recovery was outside acceptance limits.
- R2 Carrier recovery was outside acceptance limits.
- R3 Internal standard recovery was outside acceptance limits.
- R4 The recovery of the reduction efficiency checks (REC) for nitrate or nitrite exceeded the method criteria.
- R5 The back calculation recovery of one or more calibration points exceeded the method criteria.
- S1 Residue weight is above or below the method criteria and needs to be re-analyzed at a different dilution.
- S2 Residue weight is above the method criteria but was already analyzed with the highest dilution factor.



Water Analysis Report

Dolan Chemical Laboratory
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Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215073

Customer: Pirkey Power Station

Date Reported: 06/25/2021

- S3 Residue weight is below the method criteria but was already analyzed with 1000mL.
- S4 Sample and duplicate results vary due to large amounts of solids present.
- S5 Filtration time exceeds ten minutes.
- S6 Insufficient sample was received to meet the minimum volume of the method. Residue weight is below the method criteria and was analyzed with less than 1000mL.
- S7 Sample did not achieve constant weight.
- S8 Sample with low residue was selected for duplicate analysis.
- S9 Based on history, the sample residue was only measured twice and did not achieve constant weight.
- U1 Not detected at or above method detection limit (MDL).
- V1 The associated initial calibration verification (ICV) recovery was outside acceptance limits.
- V2 The associated continuing calibration verification (CCV) recovery was outside acceptance limits.

Dolan Chemical Laboratory (DCL)
4001 Dixie Road
Groveport, Ohio 43125
Michael Ohlinger (614-836-4184)
Contacts: Dave Conover (614-836-4219)

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)		Site Contact:		Date:	COC/Order #:	For Lab Use Only:					
Project Name: Pirkey PP CCR Contact Name: Leslie Fuerischbach Contact Phone: 318-673-2744		Analysis Turnaround Time (in Calendar Days) ⌚ Routine (28 days for Monitoring Wells)		250 mL bottle, then Cool, 0-5°C pH<2, HNO ₃	Field-filter 250 mL bottle, then Cool, 0-5°C pH<2, HNO ₃	Three (six every 10th) 1 L bottles, pH<2, HNO ₃					
Sampler(s): Matt Hamilton Kenny McDonald											
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:				
AD-2	5/25/2021	929	G	GW	1		X				
AD-3	5/25/2021	1159	G	GW	1		X				
AD-4	5/25/2021	1024	G	GW	1		X				
AD-7	5/25/2021	828	G	GW	1		X				
AD-12	5/24/2021	1047	G	GW	1		X				
AD-13	5/24/2021	954	G	GW	1		X				
AD-17	5/25/2021	1115	G	GW	1		X				
AD-18	5/25/2021	1145	G	GW	1		X				
AD-22	5/24/2021	1046	G	GW	1		X				
AD-28	5/25/2021	1022	G	GW	1		X				
AD-30	5/25/2021	946	G	GW	1		X				
AD-31	5/24/2021	1230	G	GW	1		X				
Preservation Used: 1=Ice; 2=HCl; 3=H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other ; F= filter in field							4	F4	1	4	
* Six 1L Bottles must be collected for Radium for every 10th sample.											
Special Instructions/QC Requirements & Comments:											
Relinquished by: <i>Kurt Nolt</i> Company: <i>EAGLE</i>		Date/Time: <i>05/27/21 1400</i>		Received by:						Date/Time:	
Relinquished by: Company:		Date/Time:		Received by:						Date/Time:	
Relinquished by: Company:		Date/Time:		Received in Laboratory		<i>Joe</i>				Date/Time:	
Form COC-04, AEP Chain of Custody (COC) Record for Coal Combustion Residual (CCR) Sampling - Shreveport, Rev. 1, 1/10/17											

Dolan Chemical Laboratory (DCL)

4001 Bixby Road

Michael Ohlinger (614-836-4184)
Dave Conover (614-836-4219)

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Site Contact:

For Lab Use Only:

COC/Order #:

Project Name: Pirkey PP CCR

Contact Name: Leslie Fuerschbach

Contact Phone: 318-673-2744

Analysis Turnaround Time (In Calendar Days)
⑥ Routine (28 days for Monitoring Wells)

Sampler(s): Matt Hamilton Kenny McDonald

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample(s) Initials										Mercury	Dissolved Mercury	F, Cl, SO ₄ , Br, TDS, TSS, alkalinity, acidity	RA-226, RA-228	Sample Specific Notes:
AD-32	5/24/2021	11:38	G	GW	1														X	
AD-33	5/24/2021	12:33	G	GW	1														X	
Duplicate - 1	5/24/2021	12:00	G	GW	1														X	

Preservation Used: 1= Ice; 2= HCl; 3= H₂SO₄; 4= HNO₃; 5= NaOH; 6= Other

; F= filter in field

4

F4

1

4

Special Instructions/QC Requirements & Comments:

* Six 1L Bottles must be collected for Radium for every 10th sample.

Reinquished by: <i>[Signature]</i>	Company: <i>FAGI</i>	Date/Time: <i>05/27/21 1400</i>	Received by:	Date/Time:
Reinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Reinquished by:	Company:	Date/Time:	Received in Laboratory by:	Date/Time: <i>5-28-21 10:15</i>

Dolan Chemical Laboratory (DCL)
 4001 Dixby Road
 Groveport, Ohio 43125
 Michael Ohlinger (614-836-4184)
 Contacts: Dave Conover (614-836-4219)

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)		Site Contact:		Date:	COCI Order #:	For Lab Use Only:
Project Name: Pirkey PP CCR Analysis Turnaround Time (in Calendar Days) ⚫ Routine (28 days for Monitoring Wells)		250 mL bottle, pH<2, HNO ₃		Field-filter 250 mL bottle, then pH<2, HNO ₃	1 L bottle, Cool, 0-6C pH<2, HNO ₃	Three (six every 10th) 1 L bottles, pH<2, HNO ₃
Sampler(s): Matt Hamilton Kenny McDonald						
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
B-2	5/24/2021	957	G	GW	1	X
B-3	5/26/2021	1113	G	GW	1	X
AD-7R	5/24/2021	1140	G	GW	1	X
AD-25	5/26/2021	1021	G	GW	1	X
AD-26	5/26/2021	937	G	GW	1	X
Duplicate - 2	5/24/2021	1230	G	GW	1	X
Preservation Used: 1=Ice, 2=HCl; 3=H₂SO₄; 4=HNO₃; 5=NaOH; 6= Other : F= filter in field						
* Six 1L Bottles must be collected for Radium for every 10th sample.						
Special Instructions/QC Requirements & Comments:						
Relinquished by:	<i>K. H. N.</i>	Company: <i>EA616</i>	Date/Time: <i>05/27/21 1400</i>	Received by:	Date/Time:	
Relinquished by:	<i>K. H. N.</i>	Company: <i>EA616</i>	Date/Time: <i>05/27/21 1400</i>	Received by:	Date/Time:	
Relinquished by:	<i>K. H. N.</i>	Company: <i>EA616</i>	Date/Time: <i>05/27/21 1400</i>	Received in Laboratory by:	Date/Time:	
					<i>28.21</i>	<i>10.15</i>

Dolan Chemical Laboratory (DCL)

4001 Bixby Road

Groveport, Ohio 43125

Michael Ohlinger (614-836-4184)

Contacts: Dave Conover (614-836-4219)

Chain of Custody Record**Program: Coal Combustion Residuals (CCR)**

		Site Contact:		Date:	For Lab Use Only:	
		250 mL bottle, pH<2, HNO ₃	Field-filter 250 mL bottle, then Cool, 0-5C pH<2, HNO ₃	Three (six every 10th) 1 L bottles, pH<2, HNO ₃	COC/Order #:	
						Sample Specific Notes:
Project Name: Pirkey PP CCR						
Contact Name: Leslie Fuerschbach						
Contact Phone: 318-675-2744						
Sampler(s): Matt Hamilton Kenny McDonald						
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
AD-8	5/26/2021	912	G	GW	1	X
AD-16	5/26/2021	1312	G	GW	1	X
AD-23	5/26/2021	1137	G	GW	1	X
AD-27	5/26/2021	1237	G	GW	1	X
AD-34	5/26/2021	1043	G	GW	1	X
AD-36	5/26/2021	959	G	GW	1	X
Duplicate - 3	5/26/2021	1200	G	GW	1	X
Preservation Used: 1=Ice, 2=HCl; 3=H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other _____ ; F= filter in field						4
						F4
						1
						4
* Six 1L Bottles must be collected for Radium for every 10th sample.						
Special Instructions/QC Requirements & Comments:						
Relinquished by: <i>LWT MJ</i>	Company: <i>F A 61 F</i>	Date/Time: <i>05/27/21 1400</i>	Received by:			
Relinquished by:	Company:	Date/Time:	Received by:			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:			
			Date/Time:			
			Date/Time:			
			Date/Time:			



WATER & WASTE SAMPLE RECEIPT FORM

Package Type				Delivery Type			
Cooler	Box	Bag	Envelope	PONY	UPS	FedEX	USPS
				Other _____			
Plant/Customer <u>Pitkey</u>				Number of Plastic Containers: <u>28</u>			
Opened By <u>SM, DGA</u>				Number of Glass Containers: _____			
Date/Time <u>5-27-21 10:15</u>				Number of Mercury Containers: _____			
Were all temperatures within 0-6°C? <u>Y</u> N or N/A Initial: <u>SM</u> on ice / no ice				2(IR Gun Ser# <u>200700321</u> , Expir. <u>06-11-22</u>) - If No, specify each deviation: _____			
Was container in good condition? <u>Y</u> N Comments _____							
Was Chain of Custody received? <u>Y</u> N Comments _____							
Requested turnaround: <u>Same</u> If RUSH, who was notified? _____							
pH (15 min)		Cr ⁺⁶ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)		
Was COC filled out properly? <u>Y</u> N Comments _____							
Were samples labeled properly? <u>Y</u> N Comments _____							
Were correct containers used? <u>Y</u> N Comments _____							
Was pH checked & Color Coding done? <u>Y</u> N or N/A Initial & Date: <u>JAB 5-28-21</u>							
<u>pH paper (circle one):</u> MQuant,PN1.09535.0001,LOT# <u>HC904495</u>				[OR] Lab Rat,PN4801,LOT# <u>X000RWDG21</u>			
- Was Add'l Preservative needed? <u>Y</u> N If Yes: By whom & when: _____ (See Prep Book)							
Is sample filtration requested? <u>Y</u> N Comments _____ (See Prep Book)							
Was the customer contacted? If Yes: Person Contacted: _____							
Lab ID# <u>215073</u> Initial & Date & Time : _____							
Logged by <u>SM</u> Comments: _____							
Reviewed by <u>MSD</u> _____							

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-001

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-2

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.55	µg/L	1	0.10	0.03		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Barium	18.9	µg/L	1	0.20	0.05		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.541	µg/L	1	0.050	0.007		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Boron	2.78	mg/L	1	0.050	0.009		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.094	µg/L	1	0.020	0.004		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Calcium	2.7	mg/L	1	0.3	0.1		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.38	µg/L	1	0.20	0.04		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	21.7	µg/L	1	0.020	0.003		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.08	mg/L	1	0.10	0.02	J1	DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.46	µg/L	1	0.20	0.05		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0483	mg/L	1	0.00020	0.00005		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	5.83	mg/L	1	0.10	0.02		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0820	mg/L	1	0.0020	0.0005		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Mercury	57	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Potassium	1.4	mg/L	1	1.0	0.2		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Selenium	1.68	µg/L	1	0.50	0.09		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Sodium	95.3	mg/L	1	0.5	0.2		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.046	mg/L	1	0.010	0.003		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.09	µg/L	1	0.20	0.04	J1	GES	06/03/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method	
Radium-226	0.43	pCi/L		0.09	0.11		TTP	06/22/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	91.7	%							
Radium-228	0.73	pCi/L		0.17	0.54		TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	74.4	%							

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-001-01

Date Collected: 05/25/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-2

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.53	µg/L	1	0.10	0.03		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Barium	19.0	µg/L	1	0.20	0.05		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.532	µg/L	1	0.050	0.007		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Boron	2.85	mg/L	1	0.050	0.009		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.091	µg/L	1	0.020	0.004		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Calcium	2.6	mg/L	1	0.3	0.1		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.63	µg/L	1	0.20	0.04		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	22.2	µg/L	1	0.020	0.003		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.08	mg/L	1	0.10	0.02	J1	DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.48	µg/L	1	0.20	0.05		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0472	mg/L	1	0.00020	0.00005		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	5.27	mg/L	1	0.10	0.02		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0840	mg/L	1	0.0020	0.0005		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Mercury	8	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Potassium	1.3	mg/L	1	1.0	0.2		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Selenium	1.73	µg/L	1	0.50	0.09		GES	06/03/2021	EPA 200.8-1994, Rev. 5.4
Sodium	86.5	mg/L	1	0.5	0.2		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.042	mg/L	1	0.010	0.003		DAM	06/08/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.1	µg/L	1	0.20	0.04	J1	GES	06/03/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-002

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-3

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.49	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	66.4	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.169	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.051	mg/L	1	0.050	0.009		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.097	µg/L	1	0.020	0.004		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	4.7	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.32	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	3.98	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	1.80	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.20	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0452	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	2.03	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0468	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	2.5	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.09	µg/L	1	0.50	0.09	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	9.4	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.033	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.05	µg/L	1	0.20	0.04	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method	
Radium-226	0.62	pCi/L		0.11	0.16		TTP	06/22/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	93.5	%							
Radium-228	0.68	pCi/L		0.13	0.43		TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	96.3	%							

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-002-01

Date Collected: 05/25/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-3

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.15	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	64.6	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.161	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.052	mg/L	1	0.050	0.009		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.083	µg/L	1	0.020	0.004		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	4.8	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.29	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	4.08	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.55	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0463	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	2.10	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0503	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	2.6	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	9.6	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.034	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.05	µg/L	1	0.20	0.04	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-003

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-4

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.13	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	80.7	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.489	µg/L	1	0.050	0.007	M1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.032	mg/L	1	0.050	0.009	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.012	µg/L	1	0.020	0.004	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	1.7	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.24	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	6.86	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	2.98	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0335	mg/L	1	0.00020	0.00005	M1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	1.35	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0654	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	2.6	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	9.7	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.016	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.06	µg/L	1	0.20	0.04	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.47	pCi/L		0.09	0.11	TTP	06/22/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	95.1	%						
Radium-228	0.36	pCi/L		0.16	0.53	TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	72.4	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-003-01

Date Collected: 05/25/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-4

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.17	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	79.8	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.442	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.032	mg/L	1	0.050	0.009	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.008	µg/L	1	0.020	0.004	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	1.6	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.24	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	7.07	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	4.29	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0335	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	1.37	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0617	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	2.6	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	9.8	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.015	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.05	µg/L	1	0.20	0.04	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-004

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-7

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.82	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	36.1	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	4.11	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	1.84	mg/L	1	0.050	0.009		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.642	µg/L	1	0.020	0.004		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	4.4	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.40	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	36.1	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.12	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.92	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0634	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	8.27	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0764	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	300	ng/L	100	500	200	J1	JAB	06/18/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	0.1	µg/L	1	0.5	0.1	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	2.2	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	2.91	µg/L	1	0.50	0.09		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	15.5	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.064	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.23	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method	
Radium-226	0.94	pCi/L		0.14	0.10		TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	77.8	%							
Radium-228	2.36	pCi/L		0.14	0.38		TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	95.8	%							

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-004-01

Date Collected: 05/25/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-7

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.81	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	36.5	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	4.00	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	1.91	mg/L	1	0.050	0.009		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.656	µg/L	1	0.020	0.004		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	4.5	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.90	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	37.1	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.11	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.89	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0628	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	8.33	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0762	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	120	ng/L	10	50	20		JAB	06/18/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	2.3	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	3.05	µg/L	1	0.50	0.09		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	15.6	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.065	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.21	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-005

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-12

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.08	µg/L	1	0.10	0.03	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	23.1	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.136	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.032	mg/L	1	0.050	0.009	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.005	µg/L	1	0.020	0.004	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.2	mg/L	1	0.3	0.1	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.24	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	1.19	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.03	mg/L	1	0.10	0.02	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.07	µg/L	1	0.20	0.05	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.00500	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	0.39	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0037	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.3	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.31	µg/L	1	0.50	0.09	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	4.7	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	<0.003	mg/L	1	0.010	0.003	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.51	pCi/L		0.10	0.11	TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	99.5	%						
Radium-228	0.09	pCi/L		0.13	0.45	TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	97.7	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-005-01

Date Collected: 05/24/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-12

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.06	µg/L	1	0.10	0.03	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	23.0	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.127	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.030	mg/L	1	0.050	0.009	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.009	µg/L	1	0.020	0.004	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.3	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.31	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	1.14	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	<0.02	mg/L	1	0.10	0.02	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.08	µg/L	1	0.20	0.05	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.00498	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	0.38	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0036	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.3	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.26	µg/L	1	0.50	0.09	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	4.7	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	<0.003	mg/L	1	0.010	0.003	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-006

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-13

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.89	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	36.6	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.119	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.078	mg/L	1	0.050	0.009		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	13.6	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.24	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	43.9	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	38.6	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.134	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	13.1	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.468	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	4.9	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	19.2	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.154	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method	
Radium-226	0.50	pCi/L		0.10	0.12		TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	92.4	%							
Radium-228	0.94	pCi/L		0.18	0.58		TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	64.7	%							

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-006-01

Date Collected: 05/24/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-13

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.20	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	36.3	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.084	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.077	mg/L	1	0.050	0.009		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	13.5	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.32	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	44.4	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	28.6	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.137	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	13.2	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.464	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	5.2	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	19.7	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.161	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-007

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-17

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.14	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	74.5	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.262	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.031	mg/L	1	0.050	0.009	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.012	µg/L	1	0.020	0.004	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	<0.1	mg/L	1	0.3	0.1	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.36	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	2.85	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.12	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.07	µg/L	1	0.20	0.05	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.00759	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	1.29	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0026	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	127	ng/L	4	20	7		JAB	06/18/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	<0.2	mg/L	1	1.0	0.2	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.12	µg/L	1	0.50	0.09	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	4.9	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	<0.003	mg/L	1	0.010	0.003	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.61	pCi/L		0.10	0.11	TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	98.2	%						
Radium-228	0.80	pCi/L		0.20	0.66	TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	80.7	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-007-01

Date Collected: 05/25/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-17

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.07	µg/L	1	0.10	0.03	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	75.5	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.255	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.027	mg/L	1	0.050	0.009	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.013	µg/L	1	0.020	0.004	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.2	mg/L	1	0.3	0.1	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.35	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	2.87	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	<0.02	mg/L	1	0.10	0.02	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.06	µg/L	1	0.20	0.05	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.00840	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	1.27	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0028	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.2	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	4.7	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.003	mg/L	1	0.010	0.003	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-008

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-18

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.42	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	103	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.088	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.021	mg/L	1	0.050	0.009	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.014	µg/L	1	0.020	0.004	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.3	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.55	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	0.964	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.96	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.15	µg/L	1	0.20	0.05	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0127	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	0.38	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0044	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	14	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.9	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.13	µg/L	1	0.50	0.09	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	6.6	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.005	mg/L	1	0.010	0.003	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.05	µg/L	1	0.20	0.04	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.40	pCi/L		0.08	0.08	TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	108	%						
Radium-228	0.37	pCi/L		0.17	0.56	TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	96.5	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-008-01

Date Collected: 05/25/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-18

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.04	µg/L	1	0.10	0.03	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	103	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.080	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.022	mg/L	1	0.050	0.009	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.013	µg/L	1	0.020	0.004	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.3	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.26	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	0.958	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.05	mg/L	1	0.10	0.02	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0130	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	0.37	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0043	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	3	ng/L	1	5	2	J1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.9	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	6.7	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.005	mg/L	1	0.010	0.003	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-009

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-22

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	2.05	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	16.0	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	6.83	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.076	mg/L	1	0.050	0.009		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	1.25	µg/L	1	0.020	0.004		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	12.7	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.56	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	99.1	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	8.74	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.24	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.166	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	18.1	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.329	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	84	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	4.1	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	7.43	µg/L	1	0.50	0.09		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	74.9	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.114	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.21	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method	
Radium-226	0.97	pCi/L		0.14	0.12		TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	79.0	%							
Radium-228	4.30	pCi/L		0.22	0.59		TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	79.2	%							

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-009-01

Date Collected: 05/24/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-22

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	2.22	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	16.1	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	6.92	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.078	mg/L	1	0.050	0.009		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	1.26	µg/L	1	0.020	0.004		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	13.0	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.54	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	103	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	8.58	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.24	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.169	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	18.5	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.338	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	31	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	4.3	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	7.55	µg/L	1	0.50	0.09		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	75.6	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.116	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.21	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-010

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-28

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.02	µg/L	1	0.10	0.02	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.18	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	153	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.771	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.391	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.062	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	1.3	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.47	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	15.0	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.26	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.11	µg/L	1	0.20	0.05	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0190	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	3.32	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0414	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	19	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.7	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.21	µg/L	1	0.50	0.09	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	7.8	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.024	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method	
Radium-226	0.56	pCi/L		0.10	0.11		TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	87.5	%							
Radium-228	0.62	pCi/L		0.15	0.48		TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	87.8	%							

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-010-01

Date Collected: 05/25/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-28

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.07	µg/L	1	0.10	0.03	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	148	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.751	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.377	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.062	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	1.3	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.84	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	14.5	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	<0.02	mg/L	1	0.10	0.02	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.12	µg/L	1	0.20	0.05	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0191	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	3.32	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0412	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	6	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.7	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.27	µg/L	1	0.50	0.09	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	7.9	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.024	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-011

Date Collected: 05/25/2021

Preparation:

Customer Description:

Sampling Point: AD-30

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.17	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	104	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.158	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	1.84	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.019	µg/L	1	0.020	0.004	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.6	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.42	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	4.95	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.06	mg/L	1	0.10	0.02	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.07	µg/L	1	0.20	0.05	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.00858	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	2.48	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0265	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	15	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.9	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.30	µg/L	1	0.50	0.09	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	67.3	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.009	mg/L	1	0.010	0.003	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method	
Radium-226	0.86	pCi/L		0.13	0.11		TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	87.9	%							
Radium-228	0.97	pCi/L		0.14	0.44		TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	84.2	%							

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-011-01

Date Collected: 05/25/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-30

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.14	µg/L	1	0.10	0.03		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Barium	104	µg/L	1	0.20	0.05		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.151	µg/L	1	0.050	0.007		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Boron	1.87	mg/L	1	0.050	0.009		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.021	µg/L	1	0.020	0.004		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.6	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.49	µg/L	1	0.20	0.04		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	4.85	µg/L	1	0.020	0.003		GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Iron	<0.02	mg/L	1	0.10	0.02	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.08	µg/L	1	0.20	0.05	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.00739	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	2.40	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0257	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	0.1	µg/L	1	0.5	0.1	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.9	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.31	µg/L	1	0.50	0.09	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4
Sodium	66.2	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.009	mg/L	1	0.010	0.003	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.07	µg/L	1	0.20	0.04	J1	GES	06/07/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-012

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-31

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.23	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	33.2	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.723	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.026	mg/L	1	0.050	0.009	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.066	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	3.0	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.41	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	10.4	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.17	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.20	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0638	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	4.35	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0288	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	59	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	0.1	µg/L	1	0.5	0.1	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	1.7	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.28	µg/L	1	0.50	0.09	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	35.7	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.042	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.09	µg/L	1	0.20	0.04	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method	
Radium-226	0.39	pCi/L		0.10	0.20		TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	72.7	%							
Radium-228	1.21	pCi/L		0.17	0.55		TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	88.5	%							

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-012-01

Date Collected: 05/24/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-31

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.17	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	31.3	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	0.731	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.026	mg/L	1	0.050	0.009	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.066	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	2.9	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.65	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	9.85	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.14	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.19	µg/L	1	0.20	0.05	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0642	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	4.20	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0287	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	1.7	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	0.34	µg/L	1	0.50	0.09	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	34.9	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.041	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.09	µg/L	1	0.20	0.04	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-013

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-32

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	2.39	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	16.9	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	3.96	µg/L	1	0.050	0.007	M1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	2.11	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.529	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	21.7	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.71	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	50.5	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	2.42	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.52	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0629	mg/L	1	0.00020	0.00005	M1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	17.7	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0924	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	800	ng/L	100	500	200		JAB	06/18/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	4.2	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	9.21	µg/L	1	0.50	0.09		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	87.0	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.406	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.21	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.98	pCi/L		0.12	0.11 P1	TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	83.0	%						
Radium-228	4.40	pCi/L		0.24	0.62	TTP	06/11/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	72.8	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-013-01

Date Collected: 05/24/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-32

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	2.32	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	17.6	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	3.95	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	2.11	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.552	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	21.8	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	1.30	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	51.0	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	1.72	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.56	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0634	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	17.7	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0930	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	37	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	0.1	µg/L	1	0.5	0.1	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	4.2	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	9.20	µg/L	1	0.50	0.09		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	87.1	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.408	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.21	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-014

Date Collected: 05/24/2021

Preparation:

Customer Description:

Sampling Point: AD-33

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.43	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	43.8	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	1.04	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.121	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.048	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	1.5	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.28	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	9.85	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.05	mg/L	1	0.10	0.02	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.22	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0188	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	3.96	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0066	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	2000	ng/L	200	1000	400		JAB	06/18/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.3	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	1.39	µg/L	1	0.50	0.09		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	20.2	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.029	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.05	µg/L	1	0.20	0.04	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method	
Radium-226	0.68	pCi/L		0.11	0.09		TTP	06/28/2021	SW-846 9315-1986, Rev. 0
Carrier Recovery	92.4	%							
Radium-228	0.72	pCi/L		0.19	0.62		TTP	06/24/2021	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	75.6	%							

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215084-014-01

Date Collected: 05/24/2021

Preparation: Dissolved

Customer Description:

Sampling Point: AD-33

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	0.42	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	44.5	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	1.06	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.118	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	0.057	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	1.5	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.34	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	9.97	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	0.02	mg/L	1	0.10	0.02	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.27	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.0186	mg/L	1	0.00020	0.00005		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	3.94	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.0068	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	310	ng/L	20	100	40		JAB	06/18/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	0.3	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	1.51	µg/L	1	0.50	0.09		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	20.3	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.029	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.04	µg/L	1	0.20	0.04	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID: Duplicate-1

Customer Description:

Lab Number: 215084-015

Sampling Point:

Date Collected: 05/24/2021

Date Received: 06/03/2021

Preparation:

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	2.03	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	15.3	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	6.91	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.076	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	1.18	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	12.5	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.50	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	99.0	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	8.86	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.23	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.170	mg/L	1	0.00020	0.00005		GES	06/09/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	17.9	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.326	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	79	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	4.2	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	7.44	µg/L	1	0.50	0.09		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	75.7	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.113	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.21	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID: Duplicate-1

Customer Description:

Lab Number: 215084-015-01

Sampling Point:

Date Collected: 05/24/2021

Date Received: 06/03/2021

Preparation: Dissolved

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	2.13	µg/L	1	0.10	0.03		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	16.0	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	6.96	µg/L	1	0.050	0.007		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.080	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	1.24	µg/L	1	0.020	0.004		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	12.6	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.64	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	102	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	8.51	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	0.26	µg/L	1	0.20	0.05		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.171	mg/L	1	0.00020	0.00005		GES	06/09/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	18.0	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	0.328	mg/L	1	0.0020	0.0005		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	35	ng/L	1	5	2		JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	4.2	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	7.43	µg/L	1	0.50	0.09		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	75.9	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	0.114	mg/L	1	0.010	0.003		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	0.21	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID: Equipment Blank

Customer Description:

Lab Number: 215084-016

Sampling Point:

Date Collected: 05/24/2021

Date Received: 06/03/2021

Preparation:

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Barium	0.09	µg/L	1	0.20	0.05	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.007	µg/L	1	0.050	0.007	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Boron	0.011	mg/L	1	0.050	0.009	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	<0.1	mg/L	1	0.3	0.1	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Chromium	0.25	µg/L	1	0.20	0.04		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Cobalt	0.039	µg/L	1	0.020	0.003		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Iron	<0.02	mg/L	1	0.10	0.02	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Lithium	0.00024	mg/L	1	0.00020	0.00005		GES	06/09/2021	EPA 200.8-1994, Rev. 5.4
Magnesium	<0.02	mg/L	1	0.10	0.02	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Manganese	<0.0005	mg/L	1	0.0020	0.0005	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Mercury	<2	ng/L	1	5	2	U1	JAB	06/16/2021	EPA 245.7 -2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Potassium	<0.2	mg/L	1	1.0	0.2	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Sodium	<0.2	mg/L	1	0.5	0.2	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Strontium	<0.003	mg/L	1	0.010	0.003	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4

Customer Sample ID:

Customer Description:

Lab Number: 215084-016-01

Sampling Point:

Date Collected: 05/24/2021

Date Received: 06/03/2021

Preparation: Dissolved

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
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Water Analysis Report

Job ID: 215084

Customer: Pirkey Power Station

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Date Reported: 06/29/2021

Report Verification

This report and the above data have been confirmed by the following analyst.

Michael Ohlinger, Chemist

Email: msohlinger@aep.com

Phone: 614-836-4184

Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Data Qualifier Legend

- B1 Analyte detected in method blank (MB) at or above the method criteria.
- B2 Analyte detected in initial calibration blank (ICB) at or above the method criteria.
- B3 Analyte detected in continuing calibration blank (CCB) at or above the method criteria.
- B4 The interference check standard (ICS) exceeded the method criteria on this parameter.
- H1 Sample was received past holding time.
- H2 Sample analysis performed past holding time.
- J1 Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
- J2 Concentration estimated. Analyte exceeded calibration range.
- L1 The associated laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) recovery was outside acceptance limits.
- M1 The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.
- M2 Analyzed by method of standard additions (MSA).
- O1 The reporting limit for oil and grease is directly affected by the collected sample volume.
- O2 Client did not provide additional bottles; therefore, the MS and duplicate are missing in this batch.
- O3 Client did not provide additional bottles; therefore, the duplicate is missing in this batch.
- O4 Sample was transferred to a different bottle due to excess fine particulate. The particulate was rinsed with hexane, and the hexane layer was transferred to the corresponding bottle. The hexane rinse was completed three times.
- P1 The precision between duplicate results was above acceptance limits.
- P2 The precision on the laboratory control sample duplicate (LCSD) was above acceptance limits.
- P3 The precision on the matrix spike duplicate (MSD) was above acceptance limits.
- P4 The field duplicate was used as a sample duplicate.
- P5 The precision on the inorganic efficiency check (IEC) exceeded the method criteria.
- Q1 Sample received in inappropriate sample container.
- Q2 Sample was received damaged. The sample was recoverable.
- Q3 Sample container was received damaged. Unable to recover the sample.
- Q4 Sample was received outside of thermal preservation range.
- Q5 Sample was received with improper chemical preservation.
- Q6 Insufficient sample was received by the laboratory to perform the requested analysis.
- Q7 Insufficient sample was received to meet method QC requirements.
- Q8 Sample was received with head space.
- Q9 Due to instrument malfunction, sample was invalidated.
- Q10 Analysis was performed by a contracted laboratory. See attached report.
- Q11 Sample contains free liquid.
- Q12 Sample does not contain free liquid.
- Q13 Sample did not ignite.
- Q14 This analyte and method are not included on the primary Laboratory Scope of TNI Accreditation.
- R1 Surrogate recovery was outside acceptance limits.
- R2 Carrier recovery was outside acceptance limits.
- R3 Internal standard recovery was outside acceptance limits.
- R4 The recovery of the reduction efficiency checks (REC) for nitrate or nitrite exceeded the method criteria.
- R5 The back calculation recovery of one or more calibration points exceeded the method criteria.
- S1 Residue weight is above or below the method criteria and needs to be re-analyzed at a different dilution.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215084

Customer: Pirkey Power Station

Date Reported: 06/29/2021

- S2 Residue weight is above the method criteria but was already analyzed with the highest dilution factor.
- S3 Residue weight is below the method criteria but was already analyzed with 1000mL.
- S4 Sample and duplicate results vary due to large amounts of solids present.
- S5 Filtration time exceeds ten minutes.
- S6 Insufficient sample was received to meet the minimum volume of the method. Residue weight is below the method criteria and was analyzed with less than 1000mL.
- S7 Sample did not achieve constant weight.
- S8 Sample with low residue was selected for duplicate analysis.
- S9 Based on history, the sample residue was only measured twice and did not achieve constant weight.
- U1 Not detected at or above method detection limit (MDL).
- V1 The associated initial calibration verification (ICV) recovery was outside acceptance limits.
- V2 The associated continuing calibration verification (CCV) recovery was outside acceptance limits.

Chain of Custody Record

Doktor Chammeev - Lepoeraw (PC7)

**4001 Bixby Road
Groveport, Ohio 43125**

Groveport, Ohio 43125
Michael Ohlinger (614-836-4184)
Facts: Dave Conover (614-836-4219)

Program

Program: Coal Combustion Residuals (CCR)

Project Name: Pirkey PP CCR

Analysis Turnaround Time (in Calendar Days)

⑥ Routine (28 days for Monitoring Wells)

	Field lined	PTFE lined	PVC lined
250 mL bottle, pH<2, ionic	250 mL bottle, then 1 L bottles, pH<2, ionic	100' PTFE lined bottle, pH<2, ionic	125 mL bottle, HCl **, ionic

21608c1

Project Name: Pirkey PP CCR		Contact Name: Leslie Fuerschbach		Contact Phone: 318-673-2744		Sampler(s): Matt Hamilton Kenny McDonald		Site Contact:		Date:	COC/Order #:		For Lab Use Only:	
Contacts: Michael Ohlinger (614-836-4184) Dave Conover (614-836-4219)														
<p>Analysis Turnaround Time (in Calendar Days) (G Routine (28 days for Monitoring Wells))</p>														
<p>Sample Specific Notes:</p>														
<p>MERCURY</p>														
<p>Dissolved Mercury</p>														
<p>Sample(e) Initials: _____</p>														
<p>Sample Date Sample Time Sample Type (C=Comp, G=Grab) Matrix # of Cont.</p>														
AD-2	5/25/2021	929	G	GW	7									
AD-3	5/25/2021	1159	G	GW	7	X	X	X	X	X	X	X	X	
AD-4	5/25/2021	1024	G	GW	7	X	X	X	X	X	X	X	X	
AD-7	5/25/2021	828	G	GW	7	X	X	X	X	X	X	X	X	
AD-12	5/24/2021	1047	G	GW	7	X	X	X	X	X	X	X	X	
AD-13	5/24/2021	954	G	GW	7	X	X	X	X	X	X	X	X	
AD-17	5/25/2021	1115	G	GW	7	X	X	X	X	X	X	X	X	
AD-18	5/25/2021	1145	G	GW	7	X	X	X	X	X	X	X	X	
AD-22	5/24/2021	1046	G	GW	7	X	X	X	X	X	X	X	X	
AD-28	5/25/2021	1022	G	GW	7	X	X	X	X	X	X	X	X	
AD-30	5/25/2021	946	G	GW	7	X	X	X	X	X	X	X	X	
AD-31	5/24/2021	1230	G	GW	7	X	X	X	X	X	X	X	X	
<p>Preservation Used: 1= ice; 2= HCl; 3= H₂SO₄; 4=HNO₃; 5=NaOH; 6= Other : F= filter in field</p>														
<p>* Six 1L Bottles must be collected for Radium for every 10th sample.</p>														
<p>Special Instructions/QC Requirements & Comments:</p>														
Relinquished by: <i>KWT NW</i>	Company: <i>F AULF</i>	Date/Time: <i>05/27/21 1410</i>	Received by: <i></i>	Date/Time: <i></i>										
Relinquished by: <i></i>	Company: <i></i>	Date/Time: <i></i>	Received by: <i></i>	Date/Time: <i></i>										
Relinquished by: <i></i>	Company: <i></i>	Date/Time: <i></i>	Received in Laboratory by: <i>Michael Ohliver</i>	Date/Time: <i>6/11/21 200pm</i>										

Special Instructions/QC Requirements & Comments:

Reservoir Usage: 1 = ICB, 2 = HCl; 3 = H2SO4; 4 = HNO3; 5 = BaCl2; 6 = C

Dolan Chemical Laboratory (DCL)

4001 Sixty Road

Groveport, Ohio 43125

Michael Ohlinger (614-836-4184)
Contacts: Dave Conover (614-836-4219)

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)		Site Contact:		Date:	For Lab Use Only: COC/Order #:	
		250 mL bottle, pH<2, HNO ₃	Field-filter 250 mL bottle, then 1 L bottles, pH<2, HNO ₃	Three (six every 10th*)	125 mL PTFE lined bottle, pH<2, HNO ₃	Field Filtered 125 mL PTFE lined bottle, HCl**, pH<2
				Dissolved Mercury		
				Sample Specific Notes:		
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
AD-32	5/24/2021	11:38	G	GW	10	X X X X X X
AD-33	5/24/2021	12:33	G	GW	7	X X X X X X
Duplicate - 1	5/24/2021	12:00	G	GW	4	X X X X
Equipment Blank	5/24/2021	10:26	G	GW	2	X X
Preservation Used: 1=Ice, 2=HCl; 3=H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other : F= filter in field						
* Six 1L Bottles must be collected for Radium for every 10th sample.						
Special Instructions/QC Requirements & Comments:						
Relinquished by:	Karen	Company:	Eagle	Date/Time:	05/27/21 1400	Received by:
Relinquished by:		Company:		Date/Time:		Received by:
Relinquished by:		Company:		Date/Time:	6/1/21	Received in Laboratory by: <i>John</i>



AEP WATER & WASTE SAMPLE RECEIPT FORM

<u>Package Type</u>			<u>Delivery Type</u>				
Cooler	Box	Bag	Envelope	PONY	UPS	FedEX	
				USPS			
				Other _____			
Plant/Customer	<u>Pirkry</u>			Number of Plastic Containers: <u>43</u>			
Opened By	<u>MSO</u>			Number of Glass Containers: <u>-</u>			
Date/Time	<u>6/1/21 2:00PM</u>			Number of Mercury Containers: <u>-</u>			
Were all temperatures within 0-6°C? Y / N or N/A Initial: _____ on ice / no ice							
2(IR Gun Ser# <u>200700321</u> , Expir. <u>06-11-22</u>) If No, specify each deviation: _____							
Was container in good condition? Y / N Comments _____							
Was Chain of Custody received? Y / N Comments _____							
Requested turnaround: <u>28 days</u> If RUSH, who was notified? _____							
pH (15 min)	Cr ⁺⁶ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)			
Was COC filled out properly?	Y / N	Comments _____					
Were samples labeled properly?	Y / N	Comments _____					
Were correct containers used?	Y / N	Comments _____					
Was pH checked & Color Coding done?	Y / N or N/A	Initial & Date: <u>MSO 6/1/21</u>					
<u>pH paper (circle one):</u> MQuant,PN1 09535.0001,LOT# <u>HC904495</u>	[OR] Lab Rat,PN4801,LOT# <u>X000RWDG21</u>						
- Was Add'l Preservative needed? Y / N If Yes: By whom & when: _____ (See Prep Book)							
Is sample filtration requested? Y / N Comments _____ (See Prep Book)							
Was the customer contacted? If Yes: Person Contacted: _____							
Lab ID# <u>215089</u>	Initial & Date & Time : _____						
Logged by <u>MSO</u>	Comments: <u>Missing many bottles FedEx says they will arrive Thursday</u>						
Reviewed by <u>SM</u>							

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.



AEP WATER & WASTE SAMPLE RECEIPT FORM

<u>Package Type</u>			<u>Delivery Type</u>			
<input checked="" type="radio"/> Cooler	Box	Bag	Envelope	PONY	UPS	<input checked="" type="radio"/> FedEX
				Other _____		
<u>Plant/Customer</u> <u>Pirkle</u>			<u>Number of Plastic Containers:</u> <u>33</u>			
<u>Opened By</u> <u>MSD</u>			<u>Number of Glass Containers:</u> _____			
<u>Date/Time</u> <u>6/2/21</u>			<u>Number of Mercury Containers:</u> <u>31</u>			
Were all temperatures within 0-6°C? Y / N or <u>N/A</u> Initial: _____ on ice <input checked="" type="radio"/> no ice						
1(IR Gun Ser# <u>200700311</u> , Expir. <u>06-11-22</u>) - If No, specify each deviation: _____						
Was container in good condition? <input checked="" type="radio"/> Y / N Comments _____						
Was Chain of Custody received? <input checked="" type="radio"/> Y / N Comments _____						
Requested turnaround: <u>Revt.</u> If RUSH, who was notified? _____						
pH (15 min)	Cr ⁺⁶ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)		
Was COC filled out properly? <input checked="" type="radio"/> Y / N Comments _____						
Were samples labeled properly? <input checked="" type="radio"/> Y / N Comments _____						
Were correct containers used? <input checked="" type="radio"/> Y / N Comments _____						
Was pH checked & Color Coding done? <input checked="" type="radio"/> Y / N or <u>N/A</u> Initial & Date: <u>JWB 6/2/21</u>						
<u>pH paper (circle one):</u> MQuant,PN1.09535.0001,LOT# <u>HC904495</u> [OR] Lab Rat,PN4801,LOT# <u>X000RWDG21</u>						
- Was Add'l Preservative needed? Y / N If Yes: By whom & when: _____ (See Prep Book)						
Is sample filtration requested? Y / N Comments _____ (See Prep Book)						
Was the customer contacted? If Yes: Person Contacted: _____						
Lab ID# <u>215084</u>	Initial & Date & Time : _____					
Comments: _____						
Logged by <u>MSD</u>	_____					
Reviewed by <u>SM</u>	_____					

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215094

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215094-001

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-8

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.986	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	93.4	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Magnesium	7.28	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Potassium	0.6	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Sodium	7.2	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4

Customer Sample ID:

Lab Number: 215094-002

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-16

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.016	mg/L	1	0.050	0.009	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.8	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Magnesium	1.47	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Potassium	0.8	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Sodium	13.8	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4

Customer Sample ID:

Lab Number: 215094-003

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-23

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.023	mg/L	1	0.050	0.009	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.3	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Magnesium	0.25	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Potassium	4.3	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Sodium	2.9	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215094

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID:

Lab Number: 215094-004

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-27

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.029	mg/L	1	0.050	0.009	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	3.6	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Magnesium	4.78	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Potassium	2.1	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Sodium	7.7	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4

Customer Sample ID:

Lab Number: 215094-005

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-34

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.063	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	39.7	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Magnesium	36.6	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Potassium	7.1	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Sodium	15.3	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4

Customer Sample ID:

Lab Number: 215094-006

Date Collected: 05/26/2021

Preparation:

Customer Description:

Sampling Point: AD-36

Date Received: 06/03/2021

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.057	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	0.6	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Magnesium	1.55	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Potassium	1.4	mg/L	1	1.0	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Sodium	6.8	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215094

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Customer Sample ID: Duplicate - 3

Customer Description:

Lab Number: 215094-007

Sampling Point:

Date Collected: 05/26/2021

Date Received: 06/03/2021

Preparation:

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.975	mg/L	1	0.050	0.009		GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	94.8	mg/L	1	0.3	0.1		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Magnesium	7.41	mg/L	1	0.10	0.02		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Potassium	0.6	mg/L	1	1.0	0.2	J1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Sodium	7.4	mg/L	1	0.5	0.2		DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4

Customer Sample ID: Equipment Blank - Landfill

Customer Description:

Lab Number: 215094-008

Sampling Point:

Date Collected: 05/26/2021

Date Received: 06/03/2021

Preparation:

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.009	mg/L	1	0.050	0.009	J1	GES	06/08/2021	EPA 200.8-1994, Rev. 5.4
Calcium	<0.1	mg/L	1	0.3	0.1	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Magnesium	<0.02	mg/L	1	0.10	0.02	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Potassium	<0.2	mg/L	1	1.0	0.2	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4
Sodium	<0.2	mg/L	1	0.5	0.2	U1	DAM	06/09/2021	EPA 200.7-1994, Rev. 4.4



Water Analysis Report

Job ID: 215094

Customer: Pirkey Power Station

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Report Verification

Date Reported: 06/29/2021

This report and the above data have been confirmed by the following analyst.

Michael Ohlinger, Chemist

Email: msohlinger@aep.com

Phone: 614-836-4184

Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215094

Customer: Pirkey Power Station

Date Reported: 06/29/2021

Data Qualifier Legend

- B1 Analyte detected in method blank (MB) at or above the method criteria.
- B2 Analyte detected in initial calibration blank (ICB) at or above the method criteria.
- B3 Analyte detected in continuing calibration blank (CCB) at or above the method criteria.
- B4 The interference check standard (ICS) exceeded the method criteria on this parameter.
- H1 Sample was received past holding time.
- H2 Sample analysis performed past holding time.
- J1 Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
- J2 Concentration estimated. Analyte exceeded calibration range.
- L1 The associated laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) recovery was outside acceptance limits.
- M1 The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.
- M2 Analyzed by method of standard additions (MSA).
- O1 The reporting limit for oil and grease is directly affected by the collected sample volume.
- O2 Client did not provide additional bottles; therefore, the MS and duplicate are missing in this batch.
- O3 Client did not provide additional bottles; therefore, the duplicate is missing in this batch.
- O4 Sample was transferred to a different bottle due to excess fine particulate. The particulate was rinsed with hexane, and the hexane layer was transferred to the corresponding bottle. The hexane rinse was completed three times.
- P1 The precision between duplicate results was above acceptance limits.
- P2 The precision on the laboratory control sample duplicate (LCSD) was above acceptance limits.
- P3 The precision on the matrix spike duplicate (MSD) was above acceptance limits.
- P4 The precision on the inorganic efficiency check (IEC) exceeded the method criteria.
- Q1 Sample received in inappropriate sample container.
- Q2 Sample was received damaged. The sample was recoverable.
- Q3 Sample container was received damaged. Unable to recover the sample.
- Q4 Sample was received outside of thermal preservation range.
- Q5 Sample was received with improper chemical preservation.
- Q6 Insufficient sample was received by the laboratory to perform the requested analysis.
- Q7 Insufficient sample was received to meet method QC requirements.
- Q8 Sample was received with head space.
- Q9 Due to instrument malfunction, sample was invalidated.
- Q10 Analysis was performed by a contracted laboratory. See attached report.
- Q11 Sample contains free liquid.
- Q12 Sample does not contain free liquid.
- Q13 Sample did not ignite.
- Q14 This analyte and method are not included on the primary Laboratory Scope of TNI Accreditation.
- R1 Surrogate recovery was outside acceptance limits.
- R2 Carrier recovery was outside acceptance limits.
- R3 Internal standard recovery was outside acceptance limits.
- R4 The recovery of the reduction efficiency checks (REC) for nitrate or nitrite exceeded the method criteria.
- R5 The back calculation recovery of one or more calibration points exceeded the method criteria.
- S1 Residue weight is above or below the method criteria and needs to be re-analyzed at a different dilution.
- S2 Residue weight is above the method criteria but was already analyzed with the highest dilution factor.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215094

Customer: Pirkey Power Station

Date Reported: 06/29/2021

- S3 Residue weight is below the method criteria but was already analyzed with 1000mL.
- S4 Sample and duplicate results vary due to large amounts of solids present.
- S5 Filtration time exceeds ten minutes.
- S6 Insufficient sample was received to meet the minimum volume of the method. Residue weight is below the method criteria and was analyzed with less than 1000mL.
- S7 Sample did not achieve constant weight.
- S8 Sample with low residue was selected for duplicate analysis.
- S9 Based on history, the sample residue was only measured twice and did not achieve constant weight.
- U1 Not detected at or above method detection limit (MDL).
- V1 The associated initial calibration verification (ICV) recovery was outside acceptance limits.
- V2 The associated continuing calibration verification (CCV) recovery was outside acceptance limits.



AEP WATER & WASTE SAMPLE RECEIPT FORM

<u>Package Type</u>				<u>Delivery Type</u>			
<input checked="" type="checkbox"/> Cooler	Box	Bag	Envelope	PONY	UPS	FedEX	USPS
				Other _____			
<u>Plant/Customer</u> <u>Rickey</u>				<u>Number of Plastic Containers:</u> <u>8</u>			
<u>Opened By</u> <u>MSD</u>				<u>Number of Glass Containers:</u> <u>-</u>			
<u>Date/Time</u> <u>6/2/21 2:30PM</u>				<u>Number of Mercury Containers:</u> <u>-</u>			
Were all temperatures within 0-6°C? Y / N or <u>N/A</u> Initial: _____ on ice / <u>no ice</u>							
1(IR Gun Ser# <u>200700311</u> , Expir. <u>06-11-22</u>) - If No, specify each deviation: _____							
Was container in good condition? <u>Y</u> / N Comments _____							
Was Chain of Custody received? <u>Y</u> / N Comments _____							
Requested turnaround: <u>28 days</u> If RUSH, who was notified? _____							
pH (15 min)	Cr ⁺⁶ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)			
Was COC filled out properly? <u>Y</u> / N Comments _____							
Were samples labeled properly? <u>Y</u> / N Comments _____							
Were correct containers used? <u>Y</u> / N Comments _____							
Was pH checked & Color Coding done? <u>Y</u> / <u>N</u> or N/A Initial & Date: <u>JWB 6/2/21</u>							
<u>pH paper (circle one):</u> MQuant,PN1.09535.0001,LOT# <u>HC904495</u> [OR] Lab Rat,PN4801,LOT# <u>X000RWDG21</u>							
- Was Add'l Preservative needed? <u>Y</u> / <u>N</u> If Yes: By whom & when: _____ (See Prep Book)							
Is sample filtration requested? <u>Y</u> / <u>N</u> Comments _____ (See Prep Book)							
Was the customer contacted? If Yes: Person Contacted: _____							
Lab ID# <u>215094</u> Initial & Date & Time : _____							
Comments: _____							
Logged by <u>MSD</u> _____							
Reviewed by <u>SM</u> _____							

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 215424

Customer: Pirkey Power Station

Date Reported: 08/09/2021

Customer Sample ID: AD-34

Customer Description:

Lab Number: 215424-001

Preparation:

Date Collected: 07/27/2021 10:33

Date Received: 07/29/2021 10:53

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Fluoride	0.82	mg/L	5	0.15	0.05		CRJ	07/30/2021 14:32	EPA 300.1-1997, Rev. 1.0

Customer Sample ID: AD-36

Customer Description:

Lab Number: 215424-002

Preparation:

Date Collected: 07/27/2021 10:09

Date Received: 07/29/2021 10:53

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	8.67	mg/L	2	0.04	0.02		CRJ	07/30/2021 13:16	EPA 300.1-1997, Rev. 1.0
Fluoride	0.07	mg/L	2	0.06	0.02		CRJ	07/30/2021 13:16	EPA 300.1-1997, Rev. 1.0

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Calcium	0.3	mg/L	1	0.3	0.1		SH	08/05/2021 12:57	EPA 200.7-1994, Rev. 4.4



Water Analysis Report

Job ID: 215424

Customer: Pirkey Power Station

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Report Verification

Date Reported: 08/09/2021

This report and the above data have been confirmed by the following analyst.

Michael Ohlinger, Chemist

Email: msohlinger@aep.com

Phone: 614-836-4184

Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.

Dolan Chemical Laboratory (DCL)

Groveport, Ohio 43125

Contacts: Michael Ohlinger (614-836-4184)
Dave Conover (614-836-4219)

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Project Name: Pirkey PP CCR-Landfill		Analysis Turnaround Time (in Calendar Days)		Date:		For Lab Use Only:	
Contact Name: Leslie Fuerschbach		⑥ Routine (28 days for Monitoring Wells)		COC/Order #:			
Contact Phone: 318-673-2744		Sampler(s): Matt Hamilton		Site Contact:			
Project Name: Pirkey PP CCR-Landfill		Analysis Turnaround Time (in Calendar Days)		Date:		For Lab Use Only:	
Contact Name: Leslie Fuerschbach		⑥ Routine (28 days for Monitoring Wells)		COC/Order #:			
Contact Phone: 318-673-2744		Sampler(s): Matt Hamilton		Site Contact:			
Preservation Used: 1= Ics, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other		Special Instructions/QC Requirements & Comments:		Date/Time:		Date/Time:	
* Six 1L Bottles must be collected for Radium for every 10th sample.				Received by: <i>S. Lee</i>		Date/Time: <i>7-28-21</i>	
Relinquished by: <i>John Miller</i>		Company: <i>Easke</i>		Date/Time: <i>7-28-21</i>		Date/Time: <i>7-28-21</i>	
Relinquished by: <i></i>		Company: <i></i>		Date/Time: <i></i>		Date/Time: <i></i>	
Relinquished by: <i></i>		Company: <i></i>		Date/Time: <i></i>		Date/Time: <i></i>	

Preservation Used: 1=Ice; 2=HCl; 3=H₂SO₄; 4=HNO₃; 5=NaOH; 6=Other — **F=filter in field**

- SIX 11 Bottles must be collected for Radium for every 1000 sample

Special Instructions/QC Requirements & Comments:

Relinquished by: <i>Mark Mull</i>	Company: <i>Eack</i>	Date/Time: <i>7-28-21</i>	Received by: <i></i>	Date/Time: <i></i>
Relinquished by: <i></i>	Company: <i></i>	Date/Time: <i></i>	Received by: <i></i>	Date/Time: <i></i>
Relinquished by: <i></i>	Company: <i></i>	Date/Time: <i></i>	Received in Laboratory by: <i>S. Eak</i>	Date/Time: <i>7-28-21</i>

AEP WATER & WASTE SAMPLE RECEIPT FORM

<u>Package Type</u>				<u>Delivery Type</u>			
Cooler	Box	Bag	Envelope	PONY	UPS	FedEX	USPS
				Other _____			
<u>Plant/Customer</u> <u>Wells Pitkey</u>				<u>Number of Plastic Containers:</u> <u>3</u>			
<u>Opened By</u> <u>SM</u>				<u>Number of Glass Containers:</u> _____			
<u>Date/Time</u> <u>7-29-21 10:55</u>				<u>Number of Mercury Containers:</u> _____			
Were all temperatures within 0-6°C? <u>Y</u> <u>N</u> or N/A Initial: <u>SM</u> <u>on ice</u> <u>no ice</u>							
1(IR Gun Ser# <u>200700311</u> , Expir. <u>06-11-22</u>) - If No, specify each deviation: _____							
Was container in good condition? <u>Y</u> <u>N</u> Comments _____							
Was Chain of Custody received? <u>Y</u> <u>N</u> Comments _____							
Requested turnaround: <u>2 weeks</u> If RUSH, who was notified? _____							
pH (15 min)	Cr ⁶ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)			
Was COC filled out properly?	<u>Y</u> <u>N</u>	Comments _____					
Were samples labeled properly?	<u>Y</u> <u>N</u>	Comments _____					
Were correct containers used?	<u>Y</u> <u>N</u>	Comments _____					
Was pH checked & Color Coding done?	<u>Y</u> <u>N</u> or N/A	Initial & Date: <u>SM 7-29-21</u>					
<u>pH paper (circle one):</u> MQuant,PN1.09535 0001,LOT# <u>HC904495</u> [OR] Lab Rat,PN4801,LOT# <u>X000RWDG21</u>							
- Was Add'l Preservative needed? <u>Y</u> <u>N</u> If Yes: By whom & when: _____	(See Prep Book)						
Is sample filtration requested?	<u>Y</u> <u>N</u>	Comments _____ (See Prep Book)					
Was the customer contacted?		If Yes: Person Contacted: _____					
Lab ID# <u>215424</u>	Initial & Date & Time: _____						
Logged by <u>SM</u>	Comments: _____						
Reviewed by <u>Mso</u>							

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216283

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-2

Customer Description:

Lab Number: 216283-001

Preparation:

Date Collected: 11/16/2021 10:10

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.24	mg/L	2	0.10	0.02		CRJ	12/02/2021 17:33	EPA 300.1-1997, Rev. 1.0
Chloride	29.2	mg/L	2	0.04	0.02		CRJ	12/02/2021 17:33	EPA 300.1-1997, Rev. 1.0
Fluoride	0.15	mg/L	2	0.06	0.02		CRJ	12/02/2021 17:33	EPA 300.1-1997, Rev. 1.0
Sulfate	200	mg/L	10	2.0	0.3		CRJ	12/02/2021 17:07	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	40	mg/L	1	50	20	J1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	410	mg/L	1	50	20		SDW	11/20/2021 10:33	SM 2540C-2011
TSS, Non-Filterable Residue	<0.5	mg/L	0.25	2.5	0.5	S6, U1	SDW	11/20/2021 10:33	SM 2540D-2011

Customer Sample ID: AD-3

Customer Description:

Lab Number: 216283-002

Preparation:

Date Collected: 11/16/2021 11:39

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.04	mg/L	2	0.10	0.02	J1	CRJ	12/02/2021 16:42	EPA 300.1-1997, Rev. 1.0
Chloride	6.42	mg/L	2	0.04	0.02		CRJ	12/02/2021 16:42	EPA 300.1-1997, Rev. 1.0
Fluoride	0.12	mg/L	2	0.06	0.02		CRJ	12/02/2021 16:42	EPA 300.1-1997, Rev. 1.0
Sulfate	31.3	mg/L	2	0.40	0.06		CRJ	12/02/2021 16:42	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	10	mg/L	1	20	5	J1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	150	mg/L	1	50	20		SDW	11/20/2021 10:33	SM 2540C-2011
TSS, Non-Filterable Residue	23.6	mg/L	0.40	4.0	0.8		SDW	11/20/2021 10:33	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216283

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-4

Customer Description:

Lab Number: 216283-003

Preparation:

Date Collected: 11/16/2021 11:08

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.13	mg/L	2	0.10	0.02		CRJ	12/02/2021 18:23	EPA 300.1-1997, Rev. 1.0
Chloride	3.94	mg/L	2	0.04	0.02		CRJ	12/02/2021 18:23	EPA 300.1-1997, Rev. 1.0
Fluoride	<0.02	mg/L	2	0.06	0.02	U1	CRJ	12/02/2021 18:23	EPA 300.1-1997, Rev. 1.0
Sulfate	17.2	mg/L	2	0.40	0.06		CRJ	12/02/2021 18:23	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	20	mg/L	1	50	20	J1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	130	mg/L	1	50	20		SDW	11/20/2021 10:43	SM 2540C-2011
TSS, Non-Filterable Residue	0.8	mg/L	0.25	2.5	0.5	S6, J1	SDW	11/20/2021 10:43	SM 2540D-2011

Customer Sample ID: AD-7

Customer Description:

Lab Number: 216283-004

Preparation:

Date Collected: 11/16/2021 08:37

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	2.66	mg/L	2	0.10	0.02		CRJ	12/02/2021 21:47	EPA 300.1-1997, Rev. 1.0
Chloride	33.6	mg/L	2	0.04	0.02		CRJ	12/02/2021 21:47	EPA 300.1-1997, Rev. 1.0
Fluoride	0.44	mg/L	2	0.06	0.02		CRJ	12/02/2021 21:47	EPA 300.1-1997, Rev. 1.0
Sulfate	62.6	mg/L	2	0.40	0.06		CRJ	12/02/2021 21:47	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	60	mg/L	1	50	20		GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	260	mg/L	1	50	20		SDW	11/20/2021 10:43	SM 2540C-2011
TSS, Non-Filterable Residue	5.0	mg/L	0.25	2.5	0.5	S6	SDW	11/20/2021 10:43	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216283

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-12

Customer Description:

Lab Number: 216283-005

Preparation:

Date Collected: 11/15/2021 10:29

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.08	mg/L	2	0.10	0.02	J1	CRJ	12/02/2021 20:56	EPA 300.1-1997, Rev. 1.0
Chloride	8.03	mg/L	2	0.04	0.02		CRJ	12/02/2021 20:56	EPA 300.1-1997, Rev. 1.0
Fluoride	0.07	mg/L	2	0.06	0.02		CRJ	12/02/2021 20:56	EPA 300.1-1997, Rev. 1.0
Sulfate	2.90	mg/L	2	0.40	0.06		CRJ	12/02/2021 20:56	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	90	mg/L	1	50	20		SDW	11/20/2021 10:53	SM 2540C-2011
TSS, Non-Filterable Residue	<0.5	mg/L	0.25	2.5	0.5	U1	SDW	11/20/2021 10:53	SM 2540D-2011

Customer Sample ID: AD-13

Customer Description:

Lab Number: 216283-006

Preparation:

Date Collected: 11/15/2021 09:38

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.20	mg/L	2	0.10	0.02		CRJ	12/02/2021 23:28	EPA 300.1-1997, Rev. 1.0
Chloride	42.3	mg/L	10	0.2	0.1		CRJ	12/02/2021 23:03	EPA 300.1-1997, Rev. 1.0
Fluoride	0.26	mg/L	2	0.06	0.02		CRJ	12/02/2021 23:28	EPA 300.1-1997, Rev. 1.0
Sulfate	70.8	mg/L	2	0.40	0.06		CRJ	12/02/2021 23:28	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	20	mg/L	1	50	20	J1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	220	mg/L	1	50	20		SDW	11/20/2021 10:53	SM 2540C-2011
TSS, Non-Filterable Residue	62.4	mg/L	0.40	4.0	0.8	P1	SDW	11/20/2021 10:53	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216283

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-17

Customer Description:

Lab Number: 216283-007

Preparation:

Date Collected: 11/16/2021 10:52

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.15	mg/L	2	0.10	0.02		CRJ	12/02/2021 22:38	EPA 300.1-1997, Rev. 1.0
Chloride	31.3	mg/L	2	0.04	0.02		CRJ	12/02/2021 22:38	EPA 300.1-1997, Rev. 1.0
Fluoride	0.29	mg/L	2	0.06	0.02		CRJ	12/02/2021 22:38	EPA 300.1-1997, Rev. 1.0
Sulfate	2.58	mg/L	2	0.40	0.06		CRJ	12/02/2021 22:38	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	20	mg/L	1	50	20	J1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	90	mg/L	1	50	20		SDW	11/20/2021 11:08	SM 2540C-2011
TSS, Non-Filterable Residue	1.5	mg/L	0.25	2.5	0.5	S6, J1	SDW	11/20/2021 11:08	SM 2540D-2011

Customer Sample ID: AD-18

Customer Description:

Lab Number: 216283-008

Preparation:

Date Collected: 11/17/2021 08:25

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.02	mg/L	2	0.10	0.02	J1	CRJ	12/03/2021 00:19	EPA 300.1-1997, Rev. 1.0
Chloride	5.99	mg/L	2	0.04	0.02		CRJ	12/03/2021 00:19	EPA 300.1-1997, Rev. 1.0
Fluoride	<0.02	mg/L	2	0.06	0.02	U1	CRJ	12/03/2021 00:19	EPA 300.1-1997, Rev. 1.0
Sulfate	6.23	mg/L	2	0.40	0.06		CRJ	12/03/2021 00:19	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	<20	mg/L	1	50	20	U1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	100	mg/L	1	50	20		SDW	11/20/2021 11:08	SM 2540C-2011
TSS, Non-Filterable Residue	2.8	mg/L	0.25	2.5	0.5	S6	SDW	11/20/2021 11:08	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216283

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-22

Customer Description:

Lab Number: 216283-009

Preparation:

Date Collected: 11/15/2021 11:21

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.75	mg/L	2	0.10	0.02		CRJ	12/03/2021 01:10	EPA 300.1-1997, Rev. 1.0
Chloride	108	mg/L	10	0.2	0.1		CRJ	12/03/2021 00:45	EPA 300.1-1997, Rev. 1.0
Fluoride	0.35	mg/L	2	0.06	0.02		CRJ	12/03/2021 01:10	EPA 300.1-1997, Rev. 1.0
Sulfate	236	mg/L	10	2.0	0.3		CRJ	12/03/2021 00:45	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	100	mg/L	1	50	20		GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	570	mg/L	2	100	40		SDW	11/20/2021 11:18	SM 2540C-2011
TSS, Non-Filterable Residue	1.1	mg/L	0.22	2.2	0.4	S6, J1	SDW	11/20/2021 11:18	SM 2540D-2011

Customer Sample ID: AD-28

Customer Description:

Lab Number: 216283-010

Preparation:

Date Collected: 11/16/2021 09:53

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.06	mg/L	2	0.10	0.02	J1	CRJ	12/03/2021 02:01	EPA 300.1-1997, Rev. 1.0
Chloride	4.79	mg/L	2	0.04	0.02		CRJ	12/03/2021 02:01	EPA 300.1-1997, Rev. 1.0
Fluoride	0.58	mg/L	2	0.06	0.02		CRJ	12/03/2021 02:01	EPA 300.1-1997, Rev. 1.0
Sulfate	24.2	mg/L	2	0.40	0.06		CRJ	12/03/2021 02:01	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	20	mg/L	1	50	20	J1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	100	mg/L	1	50	20		SDW	11/20/2021 11:18	SM 2540C-2011
TSS, Non-Filterable Residue	1.5	mg/L	0.25	2.5	0.5	S6, J1	SDW	11/20/2021 11:18	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216283

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-30

Customer Description:

Lab Number: 216283-011

Preparation:

Date Collected: 11/15/2021 12:12

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.39	mg/L	2	0.10	0.02		CRJ	12/03/2021 04:59	EPA 300.1-1997, Rev. 1.0
Chloride	30.9	mg/L	2	0.04	0.02		CRJ	12/03/2021 04:59	EPA 300.1-1997, Rev. 1.0
Fluoride	0.05	mg/L	2	0.06	0.02	J1	CRJ	12/03/2021 04:59	EPA 300.1-1997, Rev. 1.0
Sulfate	149	mg/L	10	2.0	0.3		CRJ	12/03/2021 04:34	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	20	mg/L	1	50	20	J1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	330	mg/L	1	50	20		SDW	11/20/2021 11:28	SM 2540C-2011
TSS, Non-Filterable Residue	1.0	mg/L	0.25	2.5	0.5	S6, J1	SDW	11/20/2021 11:28	SM 2540D-2011

Customer Sample ID: AD-31

Customer Description:

Lab Number: 216283-012

Preparation:

Date Collected: 11/16/2021 08:58

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.24	mg/L	2	0.10	0.02		CRJ	12/03/2021 05:24	EPA 300.1-1997, Rev. 1.0
Chloride	20.1	mg/L	2	0.04	0.02		CRJ	12/03/2021 05:24	EPA 300.1-1997, Rev. 1.0
Fluoride	0.13	mg/L	2	0.06	0.02		CRJ	12/03/2021 05:24	EPA 300.1-1997, Rev. 1.0
Sulfate	76.6	mg/L	2	0.40	0.06		CRJ	12/03/2021 05:24	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	30	mg/L	1	50	20	J1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	250	mg/L	1	50	20		SDW	11/20/2021 11:28	SM 2540C-2011
TSS, Non-Filterable Residue	23.2	mg/L	0.25	2.5	0.5	S6	SDW	11/20/2021 11:28	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216283

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-32

Customer Description:

Lab Number: 216283-013

Preparation:

Date Collected: 11/15/2021 11:24

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	2.08	mg/L	2	0.10	0.02		CRJ	12/03/2021 08:22	EPA 300.1-1997, Rev. 1.0
Chloride	24.3	mg/L	2	0.04	0.02		CRJ	12/03/2021 08:22	EPA 300.1-1997, Rev. 1.0
Fluoride	0.78	mg/L	2	0.06	0.02		CRJ	12/03/2021 08:22	EPA 300.1-1997, Rev. 1.0
Sulfate	334	mg/L	25	5.0	0.8		CRJ	12/03/2021 07:57	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	110	mg/L	1	50	20		GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	580	mg/L	1	50	20		SDW	11/20/2021 11:38	SM 2540C-2011
TSS, Non-Filterable Residue	5.3	mg/L	0.25	2.5	0.5	S6	SDW	11/20/2021 11:38	SM 2540D-2011

Customer Sample ID: AD-33

Customer Description:

Lab Number: 216283-014

Preparation:

Date Collected: 11/15/2021 12:18

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.16	mg/L	2	0.10	0.02		CRJ	12/03/2021 09:27	EPA 300.1-1997, Rev. 1.0
Chloride	8.60	mg/L	2	0.04	0.02		CRJ	12/03/2021 09:27	EPA 300.1-1997, Rev. 1.0
Fluoride	0.17	mg/L	2	0.06	0.02		CRJ	12/03/2021 09:27	EPA 300.1-1997, Rev. 1.0
Sulfate	41.9	mg/L	2	0.40	0.06		CRJ	12/03/2021 09:27	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	30	mg/L	1	50	20	J1	GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	150	mg/L	1	50	20		SDW	11/20/2021 11:38	SM 2540C-2011
TSS, Non-Filterable Residue	1.8	mg/L	0.25	2.5	0.5	S6, J1	SDW	11/20/2021 11:38	SM 2540D-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216283

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: Duplicate - 2

Customer Description:

Lab Number: 216283-015

Preparation:

Date Collected: 11/16/2021 12:00

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	2.87	mg/L	2	0.10	0.02		CRJ	12/03/2021 07:06	EPA 300.1-1997, Rev. 1.0
Chloride	38.3	mg/L	2	0.04	0.02		CRJ	12/03/2021 07:06	EPA 300.1-1997, Rev. 1.0
Fluoride	0.42	mg/L	2	0.06	0.02		CRJ	12/03/2021 07:06	EPA 300.1-1997, Rev. 1.0
Sulfate	61.6	mg/L	2	0.40	0.06		CRJ	12/03/2021 07:06	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Acidity, as CaCO ₃ to pH 8.3	60	mg/L	1	50	20		GES	11/23/2021 15:11	SM 2310B-2011
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	270	mg/L	1	50	20		SDW	11/20/2021 11:48	SM 2540C-2011
TSS, Non-Filterable Residue	<0.5	mg/L	0.25	2.5	0.5	S6, U1	SDW	11/20/2021 11:48	SM 2540D-2011

Report Verification

This report and the above data have been confirmed by the following analyst.

Michael Ohlinger, Chemist

Email: msohlinger@aep.com

Phone: 614-836-4184

Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.



Water Analysis Report

Job ID: 216283

Customer: Pirkey Power Station

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Date Reported: 12/15/2021

Data Qualifier Legend

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

U1 - Not detected at or above method detection limit (MDL).

S6 - Insufficient sample was received to meet the minimum volume of the method. Residue weight is below the method criteria and was analyzed with less than 1000mL.

P1 - The precision between duplicate results was above acceptance limits.

Dolan Chemical Laboratory (DCL)
 4001 Bixby Road
 Groveport, Ohio 43125
 Contacts: Michael Ohlinger (614-836-4184)
 Dave Conover (614-836-4219)

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)		Site Contact:		Date:	For Lab Use Only:	
					COC/Order #	
Project Name: Pirkey PP CCR Contact Name: Leslie Fuerschbach Contact Phone: 318-673-2744		Analysis Turnaround Time (in Calendar Days) ⚡ Routine (28 days for Monitoring Wells)			216283 (45)	
Sampler(s): Matt Hamilton Kenny McDonald		Sample(s) Initials: Mercury			Sample Specific Notes:	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	
AD-2	1/1/16/2021	1010	G	GW	1	X
AD-3	1/1/16/2021	1139	G	GW	1	X
AD-4	1/1/16/2021	1108	G	GW	1	X
AD-7	1/1/16/2021	637	G	GW	1	X
AD-12	1/1/15/2021	1029	G	GW	1	X
AD-13	1/1/15/2021	938	G	GW	1	X
AD-17	1/1/16/2021	1032	G	GW	1	X
AD-18	1/1/17/2021	825	G	GW	1	X
AD-22	1/1/15/2021	1121	G	GW	1	X
AD-28	1/1/16/2021	953	G	GW	1	X
AD-30	1/1/15/2021	1212	G	GW	1	X
AD-31	1/1/16/2021	858	G	GW	1	X
Preservation Used: 1= ice, 2= HCl; 3= H ₂ SO ₄ ; 4= HNO ₃ ; 5=NaOH; 6= Other ; F= filter in field						4 F4 1 1 4
* Six 1L Bottles must be collected for Radium for every 10th sample.						
Relinquished by:	Company: Engle	Date/Time: 1/1/21 12:00	Received by:	Date/Time:		
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Date/Time:		

M. McDonald AD-18 *1/19/21 12:30pm*

Dolan Chemical Laboratory (DCL)

Chain of Custody Record

4001 Dixie Road

Groveport, Ohio 43125

Michael Ohlinger (614-836-4184)
Contacts: Dave Conover (614-836-4219)

Project Name: Pirkey PP CCR

Contact Name: Leslie Fuerschbach

Contact Phone: 318-673-2744

Sample(s): Matt Hamilton Kenny McDonald

Program: Coal Combustion Residuals (CCR)		Site Contact:		Date:	For Lab Use Only:	
					COC/Order #:	
Analysis Turnaround Time (in Calendar Days) <input checked="" type="checkbox"/> Routine (28 days for Monitoring Wells)		250 mL bottle, pH<2, HNO ₃	Field-filter 250 mL bottle, then pH>2, HNO ₃	1 L bottle, Cool, 0-4°C	Three (six every 10th) 1 L bottles, pH<2, HNO ₃	2142)3 (pg)
Sample(s) initials Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
AD-32		11/15/2021	1124	G	GW	1
AD-33		11/15/2021	1218	G	GW	1
Duplicate - 2		11/16/2021	1200	G	GW	1
Sample Specific Notes: Dissolved Mercury Alkalinity, acidity TDS, TSS, Br, Cl, SO ₄ , F, HNO ₃						
Preservation Used: 1= ice, 2= HCl; 3= H ₂ SO ₄ ; 4=NaOH; 6= Other : F= filter in field 4 F4 1 4						
* Six 1L Bottles must be collected for Radium for every 10th sample.						
Special Instructions/QC Requirements & Comments:						
Relinquished by	Company	Date/Time:	Received by	Date/Time:		
<i>Jett Jett</i>	Eagle	11-18-21 12:00				
Relinquished by	Company	Date/Time:	Received by	Date/Time:		
Relinquished by	Company	Date/Time:	Received by	Date/Time:		



WATER & WASTE SAMPLE RECEIPT FORM

<u>Package Type</u>				<u>Delivery Type</u>			
Cooler	Box	Bag	Envelope	PONY	UPS	FedEX	USPS
				Other _____			
<u>Plant/Customer</u> <u>Dickey</u>				<u>Number of Plastic Containers:</u> <u>15</u>			
<u>Opened By</u> <u>SM, Hlw</u>				<u>Number of Glass Containers:</u> _____			
<u>Date/Time</u> <u>11/19/21 12:30</u>				<u>Number of Mercury Containers:</u> _____			
Were all temperatures within 0-6°C? Y / N or N/A Initial: <u>SM</u> on ice / no ice				1(IR Gun Ser# <u>200700311</u> , Expir. <u>06-11-22</u>) - If No, specify each deviation: _____			
Was container in good condition? Y / N Comments _____							
Was Chain of Custody received? Y / N Comments _____							
Requested turnaround: <u>20 days</u> If RUSH, who was notified? _____							
pH (15 min)	Cr ⁶⁺ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)			
Was COC filled out properly?	Y / N	Comments _____					
Were samples labeled properly?	Y / N	Comments _____					
Were correct containers used?	Y / N	Comments _____					
Was pH checked & Color Coding done?	Y / N or N/A	Initial & Date: <u>01/19/21</u>					
<u>pH paper (circle one):</u> MQuant,PN1.09535.0001,LOT# <u>HC904495</u>	[OR] Lab Rat,PN4801,LOT# <u>X000RWDG21</u>						
- Was Add'l Preservative needed? Y / N If Yes: By whom & when:	(See Prep Book)						
Is sample filtration requested?	Y / N	Comments _____ (See Prep Book)					
Was the customer contacted?	If Yes: Person Contacted: _____						
Lab ID# <u>216283</u>	Initial & Date & Time: _____						
Logged by <u>MSD</u>	Comments: <u>Only 1 Liter Bottles were sent for Analysis.</u>						
Reviewed by <u>MHC</u>	<u>At least 2 Bottles each would be needed.</u>						
<u>SH</u>							

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216284

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-8

Customer Description:

Lab Number: 216284-001

Preparation:

Date Collected: 11/17/2021 11:21

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.63	mg/L	2	0.10	0.02		CRJ	12/03/2021 22:44	EPA 300.1-1997, Rev. 1.0
Chloride	15.4	mg/L	2	0.04	0.02		CRJ	12/03/2021 22:44	EPA 300.1-1997, Rev. 1.0
Fluoride	2.31	mg/L	2	0.06	0.02		CRJ	12/03/2021 22:44	EPA 300.1-1997, Rev. 1.0
Sulfate	97.2	mg/L	10	2.0	0.3		CRJ	12/03/2021 22:19	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	220	mg/L	1	50	20		SDW	11/20/2021 11:48	SM 2540C-2011

Customer Sample ID: AD-16

Customer Description:

Lab Number: 216284-002

Preparation:

Date Collected: 11/17/2021 12:26

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.11	mg/L	2	0.10	0.02		CRJ	12/03/2021 21:54	EPA 300.1-1997, Rev. 1.0
Chloride	22.3	mg/L	2	0.04	0.02		CRJ	12/03/2021 21:54	EPA 300.1-1997, Rev. 1.0
Fluoride	0.07	mg/L	2	0.06	0.02		CRJ	12/03/2021 21:54	EPA 300.1-1997, Rev. 1.0
Sulfate	9.64	mg/L	2	0.40	0.06		CRJ	12/03/2021 21:54	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	110	mg/L	1	50	20		SDW	11/20/2021 11:58	SM 2540C-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216284

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-23

Customer Description:

Lab Number: 216284-003

Preparation:

Date Collected: 11/17/2021 10:55

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.13	mg/L	2	0.10	0.02		CRJ	12/03/2021 23:35	EPA 300.1-1997, Rev. 1.0
Chloride	7.11	mg/L	2	0.04	0.02		CRJ	12/03/2021 23:35	EPA 300.1-1997, Rev. 1.0
Fluoride	0.05	mg/L	2	0.06	0.02	J1	CRJ	12/03/2021 23:35	EPA 300.1-1997, Rev. 1.0
Sulfate	7.84	mg/L	2	0.40	0.06		CRJ	12/03/2021 23:35	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	70	mg/L	1	50	20		SDW	11/20/2021 11:58	SM 2540C-2011

Customer Sample ID: AD-27

Customer Description:

Lab Number: 216284-004

Preparation:

Date Collected: 11/17/2021 11:37

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.19	mg/L	2	0.10	0.02		CRJ	12/04/2021 02:33	EPA 300.1-1997, Rev. 1.0
Chloride	11.6	mg/L	2	0.04	0.02		CRJ	12/04/2021 02:33	EPA 300.1-1997, Rev. 1.0
Fluoride	0.20	mg/L	2	0.06	0.02		CRJ	12/04/2021 02:33	EPA 300.1-1997, Rev. 1.0
Sulfate	56.4	mg/L	2	0.40	0.06		CRJ	12/04/2021 02:33	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	190	mg/L	1	50	20	P1	SDW	11/20/2021 12:06	SM 2540C-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216284

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-34

Customer Description:

Lab Number: 216284-005

Preparation:

Date Collected: 11/17/2021 09:21

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.09	mg/L	5	0.25	0.05	J1	CRJ	12/04/2021 01:42	EPA 300.1-1997, Rev. 1.0
Chloride	7.09	mg/L	5	0.10	0.05		CRJ	12/04/2021 01:42	EPA 300.1-1997, Rev. 1.0
Fluoride	1.11	mg/L	5	0.15	0.05		CRJ	12/04/2021 01:42	EPA 300.1-1997, Rev. 1.0
Sulfate	1280	mg/L	50	10	2		CRJ	12/04/2021 01:17	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	1850	mg/L	1	50	20		SDW	11/20/2021 12:12	SM 2540C-2011

Customer Sample ID: AD-36

Customer Description:

Lab Number: 216284-006

Preparation:

Date Collected: 11/17/2021 10:18

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.22	mg/L	2	0.10	0.02		CRJ	12/04/2021 02:59	EPA 300.1-1997, Rev. 1.0
Chloride	8.97	mg/L	2	0.04	0.02		CRJ	12/04/2021 02:59	EPA 300.1-1997, Rev. 1.0
Fluoride	0.05	mg/L	2	0.06	0.02	J1	CRJ	12/04/2021 02:59	EPA 300.1-1997, Rev. 1.0
Sulfate	2.89	mg/L	2	0.40	0.06		CRJ	12/04/2021 02:59	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	50	mg/L	1	50	20	P1	SDW	11/20/2021 12:28	SM 2540C-2011



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216284

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: Duplicate - 3

Customer Description:

Lab Number: 216284-007

Preparation:

Date Collected: 11/17/2021 12:00

Date Received: 11/19/2021 12:00

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.09	mg/L	5	0.25	0.05	J1	CRJ	12/04/2021 00:26	EPA 300.1-1997, Rev. 1.0
Chloride	7.03	mg/L	5	0.10	0.05		CRJ	12/04/2021 00:26	EPA 300.1-1997, Rev. 1.0
Fluoride	1.12	mg/L	5	0.15	0.05		CRJ	12/04/2021 00:26	EPA 300.1-1997, Rev. 1.0
Sulfate	1270	mg/L	50	10	2		CRJ	12/04/2021 00:01	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO ₃	<5	mg/L	1	20	5	U1	MGK	11/22/2021 10:47	SM 2320B-2011
TDS, Filterable Residue	1810	mg/L	1	50	20		SDW	11/20/2021 12:34	SM 2540C-2011

Report Verification

This report and the above data have been confirmed by the following analyst.

Michael Ohlinger, Chemist

Email: msohlinger@aep.com

Phone: 614-836-4184

Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.



Water Analysis Report

Job ID: 216284

Customer: Pirkey Power Station

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Date Reported: 12/15/2021

Data Qualifier Legend

U1 - Not detected at or above method detection limit (MDL).

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

P1 - The precision between duplicate results was above acceptance limits.

Dolan Chemical Laboratory (DCL)

Dolan Chemical Laboratory (DCL)

Dolan Chemical Laboratory (DCL)

Dolan Chemical Laboratory (DCL)

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)									
Site Contact:		Date:	For Lab Use Only:						
			COC/Order #:						
Project Name: Pirkey PP-Landfill CCR Contact Name: Leslie Fuerenschbach Contact Phone: 318-673-2744 Sampler(s): Matt Hamilton Kenny McDonald		Analysis Turnaround Time (in Calendar Days) ⌚ Routine (28 days for Monitoring Wells)	Field-filter 250 mL bottle, pH<2, HNO3	1 L bottle, Cool, 0-6C then pH<2, HNO3	Three (six every 10hr) 1 L bottles, pH<2, HNO3				
			Ra-226, Ra-228		216284				
			Ba, Alkalinity TDS, F, Cl, SO ₄ , Dissolved Mercury						
			Mercury						
			Sample Date	Sample Time (C=Comp, G=Grab)	# of Cont.				
			Sample Type	Matrix	Sample(s) Initiates				
		Sample Identification			Sample Specific Notes:				
		AD-8	11/17/2021	G	GW 1	X			
		AD-16	11/17/2021	G	GW 1	X			
		AD-23	11/17/2021	G	GW 1	X			
		AD-27	11/17/2021	G	GW 1	X			
		AD-34	11/17/2021	G	GW 1	X			
		AD-36	11/17/2021	G	GW 1	X			
		Duplicate - 3	11/17/2021	G	GW 1	X			
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4= HNO ₃ ; 5= NaOH; 6= Other ; F= filter in field						4	F4	1	4
Special Instructions/QC Requirements & Comments: * Six 1L Bottles must be collected for Radium for every 10th sample.									
Relinquished by:	Company <i>East Edge</i>	Date/Time: <i>11-18-21 12:00</i>	Received by:						Date/Time:
Relinquished by:	Company <i></i>	Date/Time:	Received by:						Date/Time:
Relinquished by:	Company <i></i>	Date/Time:	Received in Laboratory by:						Date/Time: <i>11/19/21 12:30 PM</i>
Form COC-04, AEP Chain of Custody (COC) Record for Coal Combustion Residual (CCR) Sampling - Shreveport, Rev. 1, 1/10/17									

Preservation Used: 1=Ice, 2=HCl; 3=H₂SO₄; 4=HNO₃; 5=NaOH; 6=Other
Six 1L Bottles must be collected for Radium for every 10th sample.

THE BIBLICAL JEWISHNESS OF JESUS

Special Instructions/CC Requirements Comments:

Relinquished by: <i>Jeff Jeff</i>	Company: <i>Eagle</i>	Date/Time: <i>1-18-21 1200</i>	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: <i>Markel White</i>	Date/Time: <i>1/19/21 12:30 PM</i>

Form COC-04 AFP Chain of Custody (COC) Record for Coal Combustion Residua (CCR) Sampling - Shreveport Rev. 1 11/01/17



WATER & WASTE SAMPLE RECEIPT FORM

<u>Package Type</u>				<u>Delivery Type</u>			
Cooler	Box	Bag	Envelope	PONY	UPS	FedEX	USPS
				Other _____			
<u>Plant/Customer</u> <i>Ruske</i>				<u>Number of Plastic Containers:</u> <i>7</i>			
<u>Opened By</u> <i>SM H-M6K</i>				<u>Number of Glass Containers:</u> _____			
<u>Date/Time</u> <i>11-19-21 12:30</i>				<u>Number of Mercury Containers:</u> _____			
Were all temperatures within 0-6°C? Y / N or N/A Initial: <i>SOM</i> on ice / no ice				_____			
1(IR Gun Ser# <u>200700311</u> , Expir. <u>06-11-22</u>) - If No, specify each deviation: _____				_____			
Was container in good condition? Y / N Comments _____				_____			
Was Chain of Custody received? Y / N Comments _____				_____			
Requested turnaround: <i>10 days</i> If RUSH, who was notified? _____				_____			
pH (15 min)	Cr ⁺⁶ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)			
Was COC filled out properly? Y / N Comments _____				_____			
Were samples labeled properly? Y / N Comments _____				_____			
Were correct containers used? Y / N Comments _____				_____			
Was pH checked & Color Coding done? Y / N or N/A Initial & Date: <i>SOM 11-19-21</i>				_____			
<u>pH paper (circle one):</u> MQuant,PN1.09535.0001,LOT# <i>HC904495</i> [OR] Lab Rat,PN4801,LOT# <i>X000RWDG21</i>				_____			
- Was Add'l Preservative needed? Y / N If Yes: By whom & when: _____ (See Prep Book)				_____			
Is sample filtration requested? Y / N Comments _____ (See Prep Book)				_____			
Was the customer contacted? If Yes: Person Contacted: _____				_____			
Lab ID#	<i>216284</i>			Initial & Date & Time : _____			
				Comments: _____			
Logged by	<i>HSD</i>			_____			
Reviewed by	<i>M6K</i>			_____			

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216296

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-8

Customer Description:

Lab Number: 216296-001

Preparation:

Date Collected: 11/17/2021 11:21

Date Received: 11/22/2021 14:30

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.693	mg/L	1	0.050	0.009		GES	11/23/2021 20:28	EPA 200.8-1994, Rev. 5.4
Calcium	21.9	mg/L	1	0.05	0.02	M1, P3	GES	11/23/2021 20:28	EPA 200.8-1994, Rev. 5.4
Magnesium	2.36	mg/L	1	0.10	0.02		GES	11/23/2021 20:28	EPA 200.8-1994, Rev. 5.4
Potassium	0.55	mg/L	1	0.10	0.02		GES	11/23/2021 20:28	EPA 200.8-1994, Rev. 5.4
Sodium	9.03	mg/L	1	0.20	0.05	M1	GES	11/23/2021 20:28	EPA 200.8-1994, Rev. 5.4

Customer Sample ID: AD-16

Customer Description:

Lab Number: 216296-002

Preparation:

Date Collected: 11/17/2021 12:26

Date Received: 11/22/2021 14:30

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.206	mg/L	1	0.050	0.009		GES	11/23/2021 19:11	EPA 200.8-1994, Rev. 5.4
Calcium	0.94	mg/L	1	0.05	0.02		GES	11/23/2021 19:11	EPA 200.8-1994, Rev. 5.4
Magnesium	1.62	mg/L	1	0.10	0.02		GES	11/23/2021 19:11	EPA 200.8-1994, Rev. 5.4
Potassium	1.25	mg/L	1	0.10	0.02		GES	11/23/2021 19:11	EPA 200.8-1994, Rev. 5.4
Sodium	11.4	mg/L	1	0.20	0.05		GES	11/23/2021 19:11	EPA 200.8-1994, Rev. 5.4

Customer Sample ID: AD-23

Customer Description:

Lab Number: 216296-003

Preparation:

Date Collected: 11/17/2021 10:55

Date Received: 11/22/2021 14:30

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.045	mg/L	1	0.050	0.009	J1	GES	11/23/2021 20:44	EPA 200.8-1994, Rev. 5.4
Calcium	0.22	mg/L	1	0.05	0.02		GES	11/23/2021 20:44	EPA 200.8-1994, Rev. 5.4
Magnesium	0.20	mg/L	1	0.10	0.02		GES	11/23/2021 20:44	EPA 200.8-1994, Rev. 5.4
Potassium	3.22	mg/L	1	0.10	0.02		GES	11/23/2021 20:44	EPA 200.8-1994, Rev. 5.4
Sodium	2.35	mg/L	1	0.20	0.05		GES	11/23/2021 20:44	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216296

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: AD-27

Customer Description:

Lab Number: 216296-004

Preparation:

Date Collected: 11/17/2021 11:37

Date Received: 11/22/2021 14:30

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.040	mg/L	1	0.050	0.009	J1	GES	11/23/2021 20:49	EPA 200.8-1994, Rev. 5.4
Calcium	3.76	mg/L	1	0.05	0.02		GES	11/23/2021 20:49	EPA 200.8-1994, Rev. 5.4
Magnesium	4.66	mg/L	1	0.10	0.02		GES	11/23/2021 20:49	EPA 200.8-1994, Rev. 5.4
Potassium	2.08	mg/L	1	0.10	0.02		GES	11/23/2021 20:49	EPA 200.8-1994, Rev. 5.4
Sodium	6.52	mg/L	1	0.20	0.05		GES	11/23/2021 20:49	EPA 200.8-1994, Rev. 5.4

Customer Sample ID: AD-34

Customer Description:

Lab Number: 216296-005

Preparation:

Date Collected: 11/17/2021 09:21

Date Received: 11/22/2021 14:30

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.069	mg/L	1	0.050	0.009		GES	11/23/2021 20:54	EPA 200.8-1994, Rev. 5.4
Calcium	45.8	mg/L	1	0.05	0.02		GES	11/23/2021 20:54	EPA 200.8-1994, Rev. 5.4
Magnesium	37.9	mg/L	1	0.10	0.02		GES	11/23/2021 20:54	EPA 200.8-1994, Rev. 5.4
Potassium	7.63	mg/L	1	0.10	0.02		GES	11/23/2021 20:54	EPA 200.8-1994, Rev. 5.4
Sodium	14.1	mg/L	1	0.20	0.05		GES	11/23/2021 20:54	EPA 200.8-1994, Rev. 5.4

Customer Sample ID: AD-36

Customer Description:

Lab Number: 216296-006

Preparation:

Date Collected: 11/17/2021 10:18

Date Received: 11/22/2021 14:30

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.070	mg/L	1	0.050	0.009		GES	11/23/2021 20:59	EPA 200.8-1994, Rev. 5.4
Calcium	0.25	mg/L	1	0.05	0.02		GES	11/23/2021 20:59	EPA 200.8-1994, Rev. 5.4
Magnesium	1.16	mg/L	1	0.10	0.02		GES	11/23/2021 20:59	EPA 200.8-1994, Rev. 5.4
Potassium	1.37	mg/L	1	0.10	0.02		GES	11/23/2021 20:59	EPA 200.8-1994, Rev. 5.4
Sodium	4.13	mg/L	1	0.20	0.05		GES	11/23/2021 20:59	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216296

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Customer Sample ID: Duplicate - 3

Customer Description:

Lab Number: 216296-007

Preparation:

Date Collected: 11/17/2021 12:00

Date Received: 11/22/2021 14:30

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.066	mg/L	1	0.050	0.009		GES	11/23/2021 21:04	EPA 200.8-1994, Rev. 5.4
Calcium	45.7	mg/L	1	0.05	0.02		GES	11/23/2021 21:04	EPA 200.8-1994, Rev. 5.4
Magnesium	37.6	mg/L	1	0.10	0.02		GES	11/23/2021 21:04	EPA 200.8-1994, Rev. 5.4
Potassium	7.62	mg/L	1	0.10	0.02		GES	11/23/2021 21:04	EPA 200.8-1994, Rev. 5.4
Sodium	14.1	mg/L	1	0.20	0.05		GES	11/23/2021 21:04	EPA 200.8-1994, Rev. 5.4

Customer Sample ID: Equipment Blank - Landfill

Customer Description:

Lab Number: 216296-008

Preparation:

Date Collected: 11/17/2021 08:59

Date Received: 11/22/2021 14:30

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Boron	0.014	mg/L	1	0.050	0.009	J1	GES	11/23/2021 21:09	EPA 200.8-1994, Rev. 5.4
Calcium	0.03	mg/L	1	0.05	0.02	J1	GES	11/23/2021 21:09	EPA 200.8-1994, Rev. 5.4
Magnesium	<0.02	mg/L	1	0.10	0.02	U1	GES	11/23/2021 21:09	EPA 200.8-1994, Rev. 5.4
Potassium	<0.02	mg/L	1	0.10	0.02	U1	GES	11/23/2021 21:09	EPA 200.8-1994, Rev. 5.4
Sodium	<0.05	mg/L	1	0.20	0.05	U1	GES	11/23/2021 21:09	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216296

Customer: Pirkey Power Station

Date Reported: 12/15/2021

Report Verification

This report and the above data have been confirmed by the following analyst.

Michael Ohlinger, Chemist

Email: msohlinger@aep.com

Phone: 614-836-4184

Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.

Data Qualifier Legend

M1 - The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.

P3 - The precision on the matrix spike duplicate (MSD) was above acceptance limits.

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

U1 - Not detected at or above method detection limit (MDL).

Dolan Chemical Laboratory (DCL)

4001 Bixby Road
Cincinnati, Ohio 45213

Michael Ohlinger (614-836-4184)

Chain of Custody Record

Chain of Custody Record									
Program: Coal Combustion Residuals (CCR)					Date:	For Lab Use Only:			
Site Contact:									
Project Name: Pirkle PP CCR-Landfill									
Contact Name: Leslie Fuergeschbach									
Contact Phone: 314-573-2744									
Sampler(s): Matt Hamilton Kenny McDonald									
					Analysis Turnaround Time (in Calendar Days) ◆ Routine (28 days for Monitoring Wells)				
					Sampler(s) Initials B, Ca, Na, Mg, K Dissolved B, Cs, Li, Sb, As, Ba, Be, Cd, Cr, Co, Fe, Mn, Mo, Pb, Se, Tl and Na K Mn Sr Ra-226, Ra-228 Mercury Dissolved Mercury				
					Sample Specific Notes: 216296				
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab, M=Matrix)	# of Cont.				
AD-8		11/17/2021	1121	G	GW	1	X		
AD-16		11/17/2021	1226	G	GW	1	X		
AD-23		11/17/2021	1055	G	GW	1	X		
AD-27		11/17/2021	1137	G	GW	1	X		
AD-34		11/17/2021	921	G	GW	1	X		
AD-36		11/17/2021	1018	G	GW	1	X		
Duplicate - 3		11/17/2021	1200	G	GW	1	X		
Equipment Blank: Landfill		11/17/2021	859	G	GW	1	X		
Preservation Used: 1=Ice, 2=HCl; 3=H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other _____ ; F= filter in field									
• Six 1L Bottles must be collected for Radium for every 10th sample.									
Special Instructions/QC Requirements & Comments:									
Relinquished by:	Company:	Date/Time:	Received By:	Date/Time:					
Relinquished by:	Company:	Date/Time:	Received By:	Date/Time:					
Relinquished by:	Company:	Date/Time:	Received By:	Date/Time:					



AEP WATER & WASTE SAMPLE RECEIPT FORM

<u>Package Type</u>				<u>Delivery Type</u>			
<input checked="" type="checkbox"/> Cooler	Box	Bag	Envelope	PONY	UPS	<input checked="" type="checkbox"/> FedEx	USPS
				Other _____			
<u>Plant/Customer</u> <u>Pirkley</u>				<u>Number of Plastic Containers:</u> <u>8</u>			
<u>Opened By</u> <u>MSO</u>				<u>Number of Glass Containers:</u> _____			
<u>Date/Time</u> <u>11/22/21 12:30PM</u>				<u>Number of Mercury Containers:</u> _____			
Were all temperatures within 0-6°C? Y / N or N/A Initial: _____ on ice / no ice 1(IR Gun Ser# <u>200700311</u> , Expir. <u>06-11-22</u>) - If No, specify each deviation: _____							
Was container in good condition? <input checked="" type="checkbox"/> Y / N Comments _____							
Was Chain of Custody received? <input checked="" type="checkbox"/> Y / N Comments _____							
Requested turnaround: <u>Routine</u> If RUSH, who was notified? _____							
pH (15 min)	Cr ⁶ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)			
Was COC filled out properly? <input checked="" type="checkbox"/> Y / N Comments _____							
Were samples labeled properly? <input checked="" type="checkbox"/> Y / N Comments _____							
Were correct containers used? <input checked="" type="checkbox"/> Y / N Comments _____							
Was pH checked & Color Coding done? <input checked="" type="checkbox"/> Y / N or N/A Initial & Date: <u>MHR/JAB/JWB 11/22/21</u>							
<u>pH paper (circle one):</u> MQuant,PN1.09535.0001,LOT# <u>HC904495</u> [OR] Lab Rat,PN4801,LOT# <u>X000RWDG21</u>							
- Was Add'l Preservative needed? <input checked="" type="checkbox"/> Y / N If Yes: By whom & when: _____ (See Prep Book)							
Is sample filtration requested? <input checked="" type="checkbox"/> Y / N Comments _____ (See Prep Book)							
Was the customer contacted? If Yes: Person Contacted: _____							
Lab ID# <u>216296</u> Initial & Date & Time : _____							
Comments: _____							
Logged by <u>MSO</u> _____							
Reviewed by <u>SH</u> _____							

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-2

Customer Description:

Lab Number: 216298-001

Preparation:

Date Collected: 11/16/2021 10:10

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Arsenic	0.62	µg/L	1	0.10	0.03		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Barium	19.2	µg/L	1	0.20	0.05		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Beryllium	0.575	µg/L	1	0.050	0.007		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Boron	2.62	mg/L	1	0.050	0.009		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Cadmium	0.078	µg/L	1	0.020	0.004		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Calcium	2.63	mg/L	1	0.05	0.02		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Chromium	0.37	µg/L	1	0.20	0.04		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Cobalt	21.2	µg/L	1	0.020	0.003		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Iron	0.632	mg/L	1	0.020	0.006		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Lead	0.51	µg/L	1	0.20	0.05		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Lithium	0.0539	mg/L	1	0.00020	0.00005		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Magnesium	5.21	mg/L	1	0.10	0.02		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Manganese	0.0850	mg/L	1	0.0010	0.0002		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Mercury	49	ng/L	2	10	4		JAB	12/07/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Potassium	1.33	mg/L	1	0.10	0.02		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Selenium	1.75	µg/L	1	0.50	0.09		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Sodium	89.1	mg/L	1	0.20	0.05		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Strontium	0.0407	mg/L	1	0.0020	0.0004		GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4
Thallium	0.11	µg/L	1	0.20	0.04	J1	GES	11/23/2021 21:14	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.50	pCi/L		0.20	0.43	ST	12/15/2021 01:31	SW-846 9315-1986, Rev. 0
Carrier Recovery	89.3	%						
Radium-228	1.19	pCi/L		0.21	0.66	TTP	12/10/2021 12:44	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	83.1	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-2

Customer Description:

Lab Number: 216298-001-01

Preparation: Dissolved

Date Collected: 11/16/2021 10:10

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Arsenic	0.58	µg/L	1	0.10	0.03		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Barium	18.9	µg/L	1	0.20	0.05		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Beryllium	0.573	µg/L	1	0.050	0.007		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Boron	2.51	mg/L	1	0.050	0.009		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Cadmium	0.083	µg/L	1	0.020	0.004		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Calcium	2.56	mg/L	1	0.05	0.02		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Chromium	0.41	µg/L	1	0.20	0.04		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Cobalt	20.5	µg/L	1	0.020	0.003		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Iron	0.629	mg/L	1	0.020	0.006		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Lead	0.50	µg/L	1	0.20	0.05		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Lithium	0.0531	mg/L	1	0.00020	0.00005		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Magnesium	4.97	mg/L	1	0.10	0.02		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Manganese	0.0833	mg/L	1	0.0010	0.0002		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Mercury	14	ng/L	1	5	2		JAB	12/07/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Potassium	1.30	mg/L	1	0.10	0.02		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Selenium	1.69	µg/L	1	0.50	0.09		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Sodium	85.3	mg/L	1	0.20	0.05		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Strontium	0.0395	mg/L	1	0.0020	0.0004		GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4
Thallium	0.10	µg/L	1	0.20	0.04	J1	GES	11/23/2021 21:19	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-3

Customer Description:

Lab Number: 216298-002

Preparation:

Date Collected: 11/16/2021 11:39

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Arsenic	1.90	µg/L	1	0.10	0.03		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Barium	64.1	µg/L	1	0.20	0.05		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Beryllium	0.200	µg/L	1	0.050	0.007		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Boron	0.054	mg/L	1	0.050	0.009		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Cadmium	0.016	µg/L	1	0.020	0.004	J1	GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Calcium	4.92	mg/L	1	0.05	0.02		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Chromium	0.63	µg/L	1	0.20	0.04		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Cobalt	5.87	µg/L	1	0.020	0.003		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Iron	10.7	mg/L	1	0.020	0.006		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Lead	0.43	µg/L	1	0.20	0.05		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Lithium	0.0722	mg/L	1	0.00020	0.00005		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Magnesium	2.90	mg/L	1	0.10	0.02		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Manganese	0.0871	mg/L	1	0.0010	0.0002		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Mercury	6	ng/L	1	5	2		JAB	12/07/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Potassium	2.72	mg/L	1	0.10	0.02		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Sodium	9.49	mg/L	1	0.20	0.05		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Strontium	0.0359	mg/L	1	0.0020	0.0004		GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/23/2021 21:25	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.64	pCi/L		0.21	0.39	ST	12/15/2021 01:31	SW-846 9315-1986, Rev. 0
Carrier Recovery	93.9	%						
Radium-228	0.68	pCi/L		0.17	0.55	TTP	12/10/2021 12:44	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	84.6	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-3

Customer Description:

Lab Number: 216298-002-01

Preparation: Dissolved

Date Collected: 11/16/2021 11:39

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Arsenic	0.44	µg/L	1	0.10	0.03		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Barium	60.0	µg/L	1	0.20	0.05		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Beryllium	0.133	µg/L	1	0.050	0.007		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Boron	0.042	mg/L	1	0.050	0.009	J1	GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Cadmium	0.018	µg/L	1	0.020	0.004	J1	GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Calcium	5.06	mg/L	1	0.05	0.02		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Chromium	0.28	µg/L	1	0.20	0.04		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Cobalt	5.82	µg/L	1	0.020	0.003		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Iron	5.96	mg/L	1	0.020	0.006		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Lithium	0.0737	mg/L	1	0.00020	0.00005		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Magnesium	3.15	mg/L	1	0.10	0.02		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Manganese	0.0865	mg/L	1	0.0010	0.0002		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Mercury	3	ng/L	1	5	2	J1	JAB	12/07/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Potassium	2.73	mg/L	1	0.10	0.02		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Sodium	10.2	mg/L	1	0.20	0.05		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Strontium	0.0351	mg/L	1	0.0020	0.0004		GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/29/2021 17:59	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-4

Customer Description:

Lab Number: 216298-003

Preparation:

Date Collected: 11/16/2021 11:08

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Arsenic	0.25	µg/L	1	0.10	0.03		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Barium	122	µg/L	1	0.20	0.05	M1, P3	GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Beryllium	0.280	µg/L	1	0.050	0.007		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Boron	0.012	mg/L	1	0.050	0.009	J1	GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Cadmium	0.022	µg/L	1	0.020	0.004		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Calcium	2.13	mg/L	1	0.05	0.02		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Chromium	0.28	µg/L	1	0.20	0.04		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Cobalt	3.08	µg/L	1	0.020	0.003		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Iron	2.73	mg/L	1	0.020	0.006	P3	GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Lithium	0.0211	mg/L	1	0.00020	0.00005		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Magnesium	0.53	mg/L	1	0.10	0.02		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Manganese	0.0307	mg/L	1	0.0010	0.0002		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Mercury	15	ng/L	1	5	2		JAB	12/07/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Potassium	1.96	mg/L	1	0.10	0.02		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Sodium	5.95	mg/L	1	0.20	0.05		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Strontium	0.0173	mg/L	1	0.0020	0.0004		GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4
Thallium	0.08	µg/L	1	0.20	0.04	J1	GES	11/29/2021 18:04	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.93	pCi/L		0.25	0.37	ST	12/15/2021 01:31	SW-846 9315-1986, Rev. 0
Carrier Recovery	95.9	%						
Radium-228	0.67	pCi/L		0.17	0.53	TTP	12/10/2021 12:44	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	83.3	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-4

Customer Description:

Lab Number: 216298-003-01

Preparation: Dissolved

Date Collected: 11/16/2021 11:08

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Arsenic	0.20	µg/L	1	0.10	0.03		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Barium	129	µg/L	1	0.20	0.05		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Beryllium	0.264	µg/L	1	0.050	0.007		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Boron	0.013	mg/L	1	0.050	0.009	J1	GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Cadmium	0.022	µg/L	1	0.020	0.004		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Calcium	2.25	mg/L	1	0.05	0.02		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Chromium	0.22	µg/L	1	0.20	0.04		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Cobalt	3.20	µg/L	1	0.020	0.003		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Iron	2.62	mg/L	1	0.020	0.006		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Lithium	0.0207	mg/L	1	0.00020	0.00005		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Magnesium	0.55	mg/L	1	0.10	0.02		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Manganese	0.0316	mg/L	1	0.0010	0.0002		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Mercury	4	ng/L	1	5	2	J1	JAB	12/07/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Potassium	2.01	mg/L	1	0.10	0.02		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Sodium	6.01	mg/L	1	0.20	0.05		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Strontium	0.0181	mg/L	1	0.0020	0.0004		GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4
Thallium	0.13	µg/L	1	0.20	0.04	J1	GES	11/29/2021 18:19	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-7

Customer Description:

Lab Number: 216298-004

Preparation:

Date Collected: 11/16/2021 08:37

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Arsenic	1.05	µg/L	1	0.10	0.03		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Barium	37.3	µg/L	1	0.20	0.05		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Beryllium	4.86	µg/L	1	0.050	0.007		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Boron	2.24	mg/L	1	0.050	0.009		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Cadmium	0.734	µg/L	1	0.020	0.004		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Calcium	4.56	mg/L	1	0.05	0.02		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Chromium	0.37	µg/L	1	0.20	0.04		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Cobalt	38.3	µg/L	1	0.020	0.003		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Iron	0.147	mg/L	1	0.020	0.006		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Lead	0.80	µg/L	1	0.20	0.05		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Lithium	0.0760	mg/L	1	0.00020	0.00005		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Magnesium	8.22	mg/L	1	0.10	0.02		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Manganese	0.0898	mg/L	1	0.0010	0.0002		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Mercury	480	ng/L	20	100	40		JAB	12/10/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Potassium	2.37	mg/L	1	0.10	0.02		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Selenium	3.47	µg/L	1	0.50	0.09		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Sodium	15.4	mg/L	1	0.20	0.05		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Strontium	0.0619	mg/L	1	0.0020	0.0004		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4
Thallium	0.26	µg/L	1	0.20	0.04		GES	11/29/2021 18:24	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	1.99	pCi/L		0.39	0.47	ST	12/15/2021 01:31	SW-846 9315-1986, Rev. 0
Carrier Recovery	84.0	%						
Radium-228	3.60	pCi/L		0.19	0.48	TTP	12/10/2021 12:44	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	84.8	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-7

Customer Description:

Lab Number: 216298-004-01

Preparation: Dissolved

Date Collected: 11/16/2021 08:37

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Arsenic	1.02	µg/L	1	0.10	0.03		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Barium	37.2	µg/L	1	0.20	0.05		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Beryllium	4.80	µg/L	1	0.050	0.007		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Boron	2.31	mg/L	1	0.050	0.009		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Cadmium	0.737	µg/L	1	0.020	0.004		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Calcium	4.53	mg/L	1	0.05	0.02		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Chromium	0.30	µg/L	1	0.20	0.04		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Cobalt	37.5	µg/L	1	0.020	0.003		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Iron	0.488	mg/L	1	0.020	0.006		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Lead	0.76	µg/L	1	0.20	0.05		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Lithium	0.0776	mg/L	1	0.00020	0.00005		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Magnesium	7.99	mg/L	1	0.10	0.02		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Manganese	0.0903	mg/L	1	0.0010	0.0002		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Mercury	101	ng/L	2	10	4		JAB	12/10/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Potassium	2.35	mg/L	1	0.10	0.02		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Selenium	3.31	µg/L	1	0.50	0.09		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Sodium	15.4	mg/L	1	0.20	0.05		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Strontium	0.0599	mg/L	1	0.0020	0.0004		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4
Thallium	0.25	µg/L	1	0.20	0.04		GES	11/29/2021 18:29	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-12

Customer Description:

Lab Number: 216298-005

Preparation:

Date Collected: 11/15/2021 10:29

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Arsenic	0.05	µg/L	1	0.10	0.03	J1	GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Barium	26.5	µg/L	1	0.20	0.05		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Beryllium	0.148	µg/L	1	0.050	0.007		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Boron	0.012	mg/L	1	0.050	0.009	J1	GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Cadmium	0.01	µg/L	1	0.020	0.004	J1	GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Calcium	0.28	mg/L	1	0.05	0.02		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Chromium	0.30	µg/L	1	0.20	0.04		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Cobalt	1.38	µg/L	1	0.020	0.003		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Iron	0.035	mg/L	1	0.020	0.006		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Lead	0.07	µg/L	1	0.20	0.05	J1	GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Lithium	0.0110	mg/L	1	0.00020	0.00005		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Magnesium	0.45	mg/L	1	0.10	0.02		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Manganese	0.0052	mg/L	1	0.0010	0.0002		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Potassium	0.55	mg/L	1	0.10	0.02		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Selenium	0.10	µg/L	1	0.50	0.09	J1	GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Sodium	5.10	mg/L	1	0.20	0.05		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Strontium	0.0027	mg/L	1	0.0020	0.0004		GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/29/2021 18:34	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.44	pCi/L		0.18	0.38	ST	12/15/2021 01:31	SW-846 9315-1986, Rev. 0
Carrier Recovery	98.7	%						
Radium-228	1.32	pCi/L		0.19	0.57	TTP	12/10/2021 12:44	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	85.9	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-12

Customer Description:

Lab Number: 216298-005-01

Preparation: Dissolved

Date Collected: 11/15/2021 10:29

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Arsenic	0.04	µg/L	1	0.10	0.03	J1	GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Barium	27.1	µg/L	1	0.20	0.05		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Beryllium	0.146	µg/L	1	0.050	0.007		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Boron	0.011	mg/L	1	0.050	0.009	J1	GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Cadmium	0.012	µg/L	1	0.020	0.004	J1	GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Calcium	0.32	mg/L	1	0.05	0.02		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Chromium	0.45	µg/L	1	0.20	0.04		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Cobalt	1.42	µg/L	1	0.020	0.003		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Iron	0.019	mg/L	1	0.020	0.006	J1	GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Lead	0.07	µg/L	1	0.20	0.05	J1	GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Lithium	0.0112	mg/L	1	0.00020	0.00005		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Magnesium	0.46	mg/L	1	0.10	0.02		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Manganese	0.0054	mg/L	1	0.0010	0.0002		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Potassium	0.58	mg/L	1	0.10	0.02		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Selenium	0.11	µg/L	1	0.50	0.09	J1	GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Sodium	5.22	mg/L	1	0.20	0.05		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Strontium	0.0029	mg/L	1	0.0020	0.0004		GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/29/2021 18:40	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-13

Customer Description:

Lab Number: 216298-006

Preparation:

Date Collected: 11/15/2021 09:38

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Arsenic	4.39	µg/L	1	0.10	0.03		GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Barium	41.7	µg/L	1	0.20	0.05		GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Beryllium	0.344	µg/L	1	0.050	0.007		GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Boron	0.063	mg/L	1	0.050	0.009		GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Calcium	8.61	mg/L	1	0.05	0.02		GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Chromium	0.34	µg/L	1	0.20	0.04		GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Cobalt	45.9	µg/L	1	0.020	0.003	M1	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Iron	52.3	mg/L	2	0.04	0.01	M1, P3	GES	11/30/2021 09:21	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Lithium	0.135	mg/L	1	0.00020	0.00005	M1	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Magnesium	12.6	mg/L	1	0.10	0.02	M1, P3	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Manganese	0.436	mg/L	1	0.0010	0.0002	M1, P3	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Potassium	4.97	mg/L	1	0.10	0.02		GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Sodium	16.8	mg/L	1	0.20	0.05	P3	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Strontium	0.0392	mg/L	1	0.0020	0.0004		GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 09:04	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.55	pCi/L		0.11	0.13	ST	12/15/2021 08:15	SW-846 9315-1986, Rev. 0
Carrier Recovery	82.5	%						
Radium-228	1.01	pCi/L		0.18	0.58	TTP	12/14/2021 13:43	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	80.7	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-13

Customer Description:

Lab Number: 216298-006-01

Preparation: Dissolved

Date Collected: 11/15/2021 09:38

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Arsenic	1.39	µg/L	1	0.10	0.03		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Barium	40.6	µg/L	1	0.20	0.05		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Beryllium	0.167	µg/L	1	0.050	0.007		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Boron	0.066	mg/L	1	0.050	0.009		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Calcium	8.71	mg/L	1	0.05	0.02		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Chromium	0.23	µg/L	1	0.20	0.04		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Cobalt	46.3	µg/L	1	0.020	0.003		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Iron	42.9	mg/L	2	0.04	0.01		GES	11/30/2021 09:42	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Lithium	0.139	mg/L	1	0.00020	0.00005		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Magnesium	12.8	mg/L	1	0.10	0.02		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Manganese	0.446	mg/L	1	0.0010	0.0002		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Potassium	5.01	mg/L	1	0.10	0.02		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Sodium	17.4	mg/L	1	0.20	0.05		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Strontium	0.0399	mg/L	1	0.0020	0.0004		GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 09:37	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-17

Customer Description:

Lab Number: 216298-007

Preparation:

Date Collected: 11/16/2021 10:52

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Arsenic	0.21	µg/L	1	0.10	0.03		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Barium	266	µg/L	1	0.20	0.05		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Beryllium	0.686	µg/L	1	0.050	0.007		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Boron	0.022	mg/L	1	0.050	0.009	J1	GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Cadmium	0.058	µg/L	1	0.020	0.004		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Calcium	0.98	mg/L	1	0.05	0.02		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Chromium	0.33	µg/L	1	0.20	0.04		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Cobalt	11.8	µg/L	1	0.020	0.003		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Iron	0.122	mg/L	1	0.020	0.006		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Lead	0.13	µg/L	1	0.20	0.05	J1	GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Lithium	0.0236	mg/L	1	0.00020	0.00005		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Magnesium	4.34	mg/L	1	0.10	0.02		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Manganese	0.0409	mg/L	1	0.0010	0.0002		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Mercury	350	ng/L	10	50	20		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Potassium	1.14	mg/L	1	0.10	0.02		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Selenium	0.35	µg/L	1	0.50	0.09	J1	GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Sodium	8.56	mg/L	1	0.20	0.05		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Strontium	0.0204	mg/L	1	0.0020	0.0004		GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4
Thallium	0.04	µg/L	1	0.20	0.04	J1	GES	11/30/2021 09:47	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	2.65	pCi/L		0.24	0.12	ST	12/15/2021 08:15	SW-846 9315-1986, Rev. 0
Carrier Recovery	97.1	%						
Radium-228	3.77	pCi/L		0.20	0.50	TTP	12/14/2021 13:43	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	85.6	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-17

Customer Description:

Lab Number: 216298-007-01

Preparation: Dissolved

Date Collected: 11/16/2021 10:52

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Arsenic	0.15	µg/L	1	0.10	0.03		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Barium	267	µg/L	1	0.20	0.05		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Beryllium	0.690	µg/L	1	0.050	0.007		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Boron	0.023	mg/L	1	0.050	0.009	J1	GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Cadmium	0.066	µg/L	1	0.020	0.004		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Calcium	1.06	mg/L	1	0.05	0.02		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Chromium	0.25	µg/L	1	0.20	0.04		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Cobalt	11.7	µg/L	1	0.020	0.003		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Iron	0.046	mg/L	1	0.020	0.006		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Lead	0.15	µg/L	1	0.20	0.05	J1	GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Lithium	0.0241	mg/L	1	0.00020	0.00005		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Magnesium	4.34	mg/L	1	0.10	0.02		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Manganese	0.0411	mg/L	1	0.0010	0.0002		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Mercury	270	ng/L	10	50	20		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Potassium	1.15	mg/L	1	0.10	0.02		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Selenium	0.33	µg/L	1	0.50	0.09	J1	GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Sodium	8.47	mg/L	1	0.20	0.05		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Strontium	0.0207	mg/L	1	0.0020	0.0004		GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4
Thallium	0.04	µg/L	1	0.20	0.04	J1	GES	11/30/2021 09:52	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-18

Customer Description:

Lab Number: 216298-008

Preparation:

Date Collected: 11/17/2021 08:25

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Arsenic	0.19	µg/L	1	0.10	0.03		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Barium	82.2	µg/L	1	0.20	0.05		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Beryllium	0.078	µg/L	1	0.050	0.007		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Boron	0.01	mg/L	1	0.050	0.009	J1	GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Cadmium	0.011	µg/L	1	0.020	0.004	J1	GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Calcium	0.20	mg/L	1	0.05	0.02		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Chromium	0.31	µg/L	1	0.20	0.04		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Cobalt	0.801	µg/L	1	0.020	0.003		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Iron	0.290	mg/L	1	0.020	0.006		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Lithium	0.0124	mg/L	1	0.00020	0.00005		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Magnesium	0.30	mg/L	1	0.10	0.02		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Manganese	0.0033	mg/L	1	0.0010	0.0002		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Mercury	30	ng/L	1	5	2		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Potassium	0.72	mg/L	1	0.10	0.02		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Selenium	0.11	µg/L	1	0.50	0.09	J1	GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Sodium	5.69	mg/L	1	0.20	0.05		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Strontium	0.0041	mg/L	1	0.0020	0.0004		GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 09:57	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.70	pCi/L		0.12	0.13	ST	12/15/2021 08:15	SW-846 9315-1986, Rev. 0
Carrier Recovery	92.8	%						
Radium-228	1.21	pCi/L		0.17	0.52	TTP	12/14/2021 13:43	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	82.3	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-18

Customer Description:

Lab Number: 216298-008-01

Preparation: Dissolved

Date Collected: 11/17/2021 08:25

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Arsenic	0.07	µg/L	1	0.10	0.03	J1	GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Barium	77.0	µg/L	1	0.20	0.05		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Beryllium	0.073	µg/L	1	0.050	0.007		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Boron	0.01	mg/L	1	0.050	0.009	J1	GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Cadmium	0.011	µg/L	1	0.020	0.004	J1	GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Calcium	0.20	mg/L	1	0.05	0.02		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Chromium	0.19	µg/L	1	0.20	0.04	J1	GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Cobalt	0.749	µg/L	1	0.020	0.003		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Iron	0.091	mg/L	1	0.020	0.006		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Lithium	0.0122	mg/L	1	0.00020	0.00005		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Magnesium	0.28	mg/L	1	0.10	0.02		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Manganese	0.0031	mg/L	1	0.0010	0.0002		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Mercury	13	ng/L	1	5	2		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Potassium	0.69	mg/L	1	0.10	0.02		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Sodium	5.32	mg/L	1	0.20	0.05		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Strontium	0.0038	mg/L	1	0.0020	0.0004		GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 10:02	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-22

Customer Description:

Lab Number: 216298-009

Preparation:

Date Collected: 11/15/2021 11:21

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Arsenic	1.85	µg/L	1	0.10	0.03		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Barium	17.9	µg/L	1	0.20	0.05		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Beryllium	2.50	µg/L	1	0.050	0.007		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Boron	0.030	mg/L	1	0.050	0.009	J1	GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Cadmium	0.502	µg/L	1	0.020	0.004		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Calcium	11.7	mg/L	1	0.05	0.02		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Chromium	0.27	µg/L	1	0.20	0.04		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Cobalt	69.9	µg/L	1	0.020	0.003		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Iron	36.9	mg/L	2	0.04	0.01		GES	11/30/2021 10:20	EPA 200.8-1994, Rev. 5.4
Lead	0.09	µg/L	1	0.20	0.05	J1	GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Lithium	0.122	mg/L	1	0.00020	0.00005		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Magnesium	16.1	mg/L	1	0.10	0.02		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Manganese	0.339	mg/L	1	0.0010	0.0002		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Mercury	56	ng/L	4	20	7		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Potassium	3.69	mg/L	1	0.10	0.02		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Selenium	1.92	µg/L	1	0.50	0.09		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Sodium	92.3	mg/L	1	0.20	0.05		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Strontium	0.0883	mg/L	1	0.0020	0.0004		GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4
Thallium	0.14	µg/L	1	0.20	0.04	J1	GES	11/30/2021 10:08	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.84	pCi/L		0.14	0.15	ST	12/15/2021 08:15	SW-846 9315-1986, Rev. 0
Carrier Recovery	83.4	%						
Radium-228	2.04	pCi/L		0.20	0.57	TTP	12/14/2021 13:43	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	69.9	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-22

Customer Description:

Lab Number: 216298-009-01

Preparation: Dissolved

Date Collected: 11/15/2021 11:21

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Arsenic	1.70	µg/L	1	0.10	0.03		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Barium	18.2	µg/L	1	0.20	0.05		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Beryllium	2.48	µg/L	1	0.050	0.007		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Boron	0.029	mg/L	1	0.050	0.009	J1	GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Cadmium	0.508	µg/L	1	0.020	0.004		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Calcium	11.8	mg/L	1	0.05	0.02		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Chromium	0.30	µg/L	1	0.20	0.04		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Cobalt	70.5	µg/L	1	0.020	0.003		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Iron	38.4	mg/L	2	0.04	0.01		GES	11/30/2021 10:25	EPA 200.8-1994, Rev. 5.4
Lead	0.08	µg/L	1	0.20	0.05	J1	GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Lithium	0.121	mg/L	1	0.00020	0.00005		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Magnesium	16.2	mg/L	1	0.10	0.02		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Manganese	0.339	mg/L	1	0.0010	0.0002		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Mercury	23	ng/L	1	5	2		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Potassium	3.72	mg/L	1	0.10	0.02		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Selenium	1.95	µg/L	1	0.50	0.09		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Sodium	93.1	mg/L	1	0.20	0.05		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Strontium	0.0902	mg/L	1	0.0020	0.0004		GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4
Thallium	0.14	µg/L	1	0.20	0.04	J1	GES	11/30/2021 10:13	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-28

Customer Description:

Lab Number: 216298-010

Preparation:

Date Collected: 11/16/2021 09:53

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Arsenic	0.27	µg/L	1	0.10	0.03		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Barium	120	µg/L	1	0.20	0.05		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Beryllium	0.501	µg/L	1	0.050	0.007		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Boron	0.363	mg/L	1	0.050	0.009		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Cadmium	0.049	µg/L	1	0.020	0.004		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Calcium	1.22	mg/L	1	0.05	0.02		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Chromium	0.59	µg/L	1	0.20	0.04		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Cobalt	11.8	µg/L	1	0.020	0.003		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Iron	0.370	mg/L	1	0.020	0.006		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Lead	0.10	µg/L	1	0.20	0.05	J1	GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Lithium	0.0240	mg/L	1	0.00020	0.00005		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Magnesium	2.67	mg/L	1	0.10	0.02		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Manganese	0.0478	mg/L	1	0.0010	0.0002		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Mercury	24	ng/L	1	5	2		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Potassium	0.79	mg/L	1	0.10	0.02		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Selenium	0.17	µg/L	1	0.50	0.09	J1	GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Sodium	6.74	mg/L	1	0.20	0.05		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Strontium	0.0180	mg/L	1	0.0020	0.0004		GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 10:30	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.92	pCi/L		0.14	0.12	ST	12/15/2021 08:15	SW-846 9315-1986, Rev. 0
Carrier Recovery	87.3	%						
Radium-228	1.25	pCi/L		0.15	0.46	TTP	12/14/2021 13:43	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	81.6	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-28

Customer Description:

Lab Number: 216298-010-01

Preparation: Dissolved

Date Collected: 11/16/2021 09:53

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Arsenic	0.06	µg/L	1	0.10	0.03	J1	GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Barium	116	µg/L	1	0.20	0.05		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Beryllium	0.494	µg/L	1	0.050	0.007		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Boron	0.362	mg/L	1	0.050	0.009		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Cadmium	0.053	µg/L	1	0.020	0.004		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Calcium	1.27	mg/L	1	0.05	0.02		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Chromium	0.37	µg/L	1	0.20	0.04		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Cobalt	11.4	µg/L	1	0.020	0.003		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Iron	0.036	mg/L	1	0.020	0.006		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Lead	0.07	µg/L	1	0.20	0.05	J1	GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Lithium	0.0243	mg/L	1	0.00020	0.00005		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Magnesium	2.61	mg/L	1	0.10	0.02		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Manganese	0.0464	mg/L	1	0.0010	0.0002		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Mercury	11	ng/L	1	5	2		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Potassium	0.77	mg/L	1	0.10	0.02		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Selenium	0.14	µg/L	1	0.50	0.09	J1	GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Sodium	6.64	mg/L	1	0.20	0.05		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Strontium	0.0178	mg/L	1	0.0020	0.0004		GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 10:35	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-30

Customer Description:

Lab Number: 216298-011

Preparation:

Date Collected: 11/15/2021 12:12

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Arsenic	0.21	µg/L	1	0.10	0.03		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Barium	113	µg/L	1	0.20	0.05		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Beryllium	0.107	µg/L	1	0.050	0.007		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Boron	2.78	mg/L	1	0.050	0.009		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Cadmium	0.008	µg/L	1	0.020	0.004	J1	GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Calcium	0.67	mg/L	1	0.05	0.02		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Chromium	0.51	µg/L	1	0.20	0.04		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Cobalt	4.55	µg/L	1	0.020	0.003		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Iron	0.243	mg/L	1	0.020	0.006		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Lead	0.06	µg/L	1	0.20	0.05	J1	GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Lithium	0.0113	mg/L	1	0.00020	0.00005		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Magnesium	2.37	mg/L	1	0.10	0.02		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Manganese	0.0216	mg/L	1	0.0010	0.0002		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Mercury	60	ng/L	1	5	2		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Potassium	0.93	mg/L	1	0.10	0.02		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Selenium	0.33	µg/L	1	0.50	0.09	J1	GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Sodium	85.2	mg/L	1	0.20	0.05		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Strontium	0.0107	mg/L	1	0.0020	0.0004		GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 11:32	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.84	pCi/L		0.15	0.16	ST	12/15/2021 08:15	SW-846 9315-1986, Rev. 0
Carrier Recovery	68.9	%						
Radium-228	0.64	pCi/L		0.17	0.55	TTP	12/14/2021 13:43	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	81.7	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-30

Customer Description:

Lab Number: 216298-011-01

Preparation: Dissolved

Date Collected: 11/15/2021 12:12

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Arsenic	0.15	µg/L	1	0.10	0.03		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Barium	109	µg/L	1	0.20	0.05		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Beryllium	0.104	µg/L	1	0.050	0.007		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Boron	2.77	mg/L	1	0.050	0.009		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Cadmium	0.011	µg/L	1	0.020	0.004	J1	GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Calcium	0.76	mg/L	1	0.05	0.02		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Chromium	0.35	µg/L	1	0.20	0.04		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Cobalt	4.48	µg/L	1	0.020	0.003		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Iron	0.099	mg/L	1	0.020	0.006		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Lead	0.05	µg/L	1	0.20	0.05	J1	GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Lithium	0.0114	mg/L	1	0.00020	0.00005		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Magnesium	2.34	mg/L	1	0.10	0.02		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Manganese	0.0215	mg/L	1	0.0010	0.0002		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Mercury	34	ng/L	1	5	2		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Potassium	0.94	mg/L	1	0.10	0.02		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Selenium	0.31	µg/L	1	0.50	0.09	J1	GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Sodium	84.8	mg/L	1	0.20	0.05		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Strontium	0.0107	mg/L	1	0.0020	0.0004		GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 11:37	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-31

Customer Description:

Lab Number: 216298-012

Preparation:

Date Collected: 11/16/2021 08:58

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Arsenic	0.26	µg/L	1	0.10	0.03		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Barium	32.1	µg/L	1	0.20	0.05		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Beryllium	0.801	µg/L	1	0.050	0.007		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Boron	0.024	mg/L	1	0.050	0.009	J1	GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Cadmium	0.063	µg/L	1	0.020	0.004		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Calcium	2.68	mg/L	1	0.05	0.02		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Chromium	0.39	µg/L	1	0.20	0.04		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Cobalt	9.18	µg/L	1	0.020	0.003		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Iron	0.183	mg/L	1	0.020	0.006		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Lead	0.34	µg/L	1	0.20	0.05		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Lithium	0.0648	mg/L	1	0.00020	0.00005		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Magnesium	3.82	mg/L	1	0.10	0.02		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Manganese	0.0258	mg/L	1	0.0010	0.0002		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Mercury	1790	ng/L	50	250	90		JAB	12/10/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Potassium	1.60	mg/L	1	0.10	0.02		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Selenium	0.33	µg/L	1	0.50	0.09	J1	GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Sodium	31.0	mg/L	1	0.20	0.05		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Strontium	0.0379	mg/L	1	0.0020	0.0004		GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4
Thallium	0.08	µg/L	1	0.20	0.04	J1	GES	11/30/2021 11:42	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.87	pCi/L		0.13	0.12	ST	12/15/2021 08:15	SW-846 9315-1986, Rev. 0
Carrier Recovery	89.5	%						
Radium-228	2.52	pCi/L		0.18	0.49	TTP	12/14/2021 13:43	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	78.5	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-31

Customer Description:

Lab Number: 216298-012-01

Preparation: Dissolved

Date Collected: 11/16/2021 08:58

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Arsenic	0.54	µg/L	1	0.10	0.03		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Barium	34.4	µg/L	1	0.20	0.05		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Beryllium	0.797	µg/L	1	0.050	0.007		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Boron	0.021	mg/L	1	0.050	0.009	J1	GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Cadmium	0.058	µg/L	1	0.020	0.004		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Calcium	2.53	mg/L	1	0.05	0.02		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Chromium	1.04	µg/L	1	0.20	0.04		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Cobalt	9.07	µg/L	1	0.020	0.003		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Iron	0.553	mg/L	1	0.020	0.006		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Lead	0.46	µg/L	1	0.20	0.05		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Lithium	0.0643	mg/L	1	0.00020	0.00005		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Magnesium	3.70	mg/L	1	0.10	0.02		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Manganese	0.0253	mg/L	1	0.0010	0.0002		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Mercury	239	ng/L	4	20	7		JAB	12/10/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Potassium	1.55	mg/L	1	0.10	0.02		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Selenium	0.37	µg/L	1	0.50	0.09	J1	GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Sodium	30.2	mg/L	1	0.20	0.05		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Strontium	0.0375	mg/L	1	0.0020	0.0004		GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4
Thallium	0.08	µg/L	1	0.20	0.04	J1	GES	11/30/2021 11:47	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-32

Customer Description:

Lab Number: 216298-013

Preparation:

Date Collected: 11/15/2021 11:24

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Arsenic	2.39	µg/L	1	0.10	0.03		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Barium	22.5	µg/L	1	0.20	0.05		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Beryllium	3.90	µg/L	1	0.050	0.007		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Boron	1.70	mg/L	1	0.050	0.009		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Cadmium	0.452	µg/L	1	0.020	0.004		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Calcium	16.8	mg/L	1	0.05	0.02		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Chromium	0.75	µg/L	1	0.20	0.04		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Cobalt	39.9	µg/L	1	0.020	0.003		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Iron	3.51	mg/L	1	0.020	0.006		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Lead	0.52	µg/L	1	0.20	0.05		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Lithium	0.0698	mg/L	1	0.00020	0.00005		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Magnesium	14.4	mg/L	1	0.10	0.02		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Manganese	0.0827	mg/L	1	0.0010	0.0002		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Mercury	1400	ng/L	100	500	200		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Potassium	3.95	mg/L	1	0.10	0.02		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Selenium	7.70	µg/L	1	0.50	0.09		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Sodium	68.3	mg/L	1	0.20	0.05		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Strontium	0.337	mg/L	1	0.0020	0.0004		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4
Thallium	0.25	µg/L	1	0.20	0.04		GES	11/30/2021 11:52	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.70	pCi/L		0.12	0.12	ST	12/15/2021 08:15	SW-846 9315-1986, Rev. 0
Carrier Recovery	82.0	%						
Radium-228	3.90	pCi/L		0.24	0.69	TTP	12/14/2021 13:43	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	81.5	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-32

Customer Description:

Lab Number: 216298-013-01

Preparation: Dissolved

Date Collected: 11/15/2021 11:24

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Arsenic	2.25	µg/L	1	0.10	0.03		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Barium	21.8	µg/L	1	0.20	0.05		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Beryllium	3.85	µg/L	1	0.050	0.007		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Boron	1.68	mg/L	1	0.050	0.009		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Cadmium	0.455	µg/L	1	0.020	0.004		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Calcium	16.6	mg/L	1	0.05	0.02		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Chromium	0.52	µg/L	1	0.20	0.04		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Cobalt	39.3	µg/L	1	0.020	0.003		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Iron	2.42	mg/L	1	0.020	0.006		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Lead	0.50	µg/L	1	0.20	0.05		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Lithium	0.0694	mg/L	1	0.00020	0.00005		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Magnesium	14.1	mg/L	1	0.10	0.02		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Manganese	0.0818	mg/L	1	0.0010	0.0002		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Mercury	320	ng/L	10	50	20		JAB	12/09/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Potassium	3.88	mg/L	1	0.10	0.02		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Selenium	7.45	µg/L	1	0.50	0.09		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Sodium	67.0	mg/L	1	0.20	0.05		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Strontium	0.335	mg/L	1	0.0020	0.0004		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4
Thallium	0.24	µg/L	1	0.20	0.04		GES	11/30/2021 11:57	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-33

Customer Description:

Lab Number: 216298-014

Preparation:

Date Collected: 11/15/2021 12:18

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Arsenic	0.40	µg/L	1	0.10	0.03		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Barium	45.1	µg/L	1	0.20	0.05		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Beryllium	0.916	µg/L	1	0.050	0.007		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Boron	0.093	mg/L	1	0.050	0.009		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Cadmium	0.043	µg/L	1	0.020	0.004		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Calcium	0.98	mg/L	1	0.05	0.02		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Chromium	0.28	µg/L	1	0.20	0.04		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Cobalt	6.75	µg/L	1	0.020	0.003		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Iron	0.152	mg/L	1	0.020	0.006		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Lead	0.23	µg/L	1	0.20	0.05		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Lithium	0.0177	mg/L	1	0.00020	0.00005		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Magnesium	2.68	mg/L	1	0.10	0.02		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Manganese	0.0054	mg/L	1	0.0010	0.0002		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Mercury	14600	ng/L	400	2000	700		JAB	12/10/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Potassium	0.26	mg/L	1	0.10	0.02		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Selenium	1.0	µg/L	1	0.50	0.09		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Sodium	15.1	mg/L	1	0.20	0.05		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Strontium	0.0213	mg/L	1	0.0020	0.0004		GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 12:14	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.49	pCi/L		0.10	0.13	ST	12/15/2021 08:15	SW-846 9315-1986, Rev. 0
Carrier Recovery	87.8	%						
Radium-228	1.16	pCi/L		0.21	0.66	TTP	12/14/2021 13:43	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	82.8	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: AD-33

Customer Description:

Lab Number: 216298-014-01

Preparation: Dissolved

Date Collected: 11/15/2021 12:18

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Arsenic	0.30	µg/L	1	0.10	0.03		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Barium	43.4	µg/L	1	0.20	0.05		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Beryllium	0.892	µg/L	1	0.050	0.007		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Boron	0.089	mg/L	1	0.050	0.009		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Cadmium	0.042	µg/L	1	0.020	0.004		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Calcium	0.97	mg/L	1	0.05	0.02		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Chromium	0.20	µg/L	1	0.20	0.04		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Cobalt	6.53	µg/L	1	0.020	0.003		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Iron	0.033	mg/L	1	0.020	0.006		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Lead	0.19	µg/L	1	0.20	0.05	J1	GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Lithium	0.0173	mg/L	1	0.00020	0.00005		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Magnesium	2.57	mg/L	1	0.10	0.02		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Manganese	0.0052	mg/L	1	0.0010	0.0002		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Mercury	3300	ng/L	100	500	200		JAB	12/10/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Potassium	0.25	mg/L	1	0.10	0.02		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Selenium	0.90	µg/L	1	0.50	0.09		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Sodium	14.5	mg/L	1	0.20	0.05		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Strontium	0.0205	mg/L	1	0.0020	0.0004		GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 12:19	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: Duplicate - 2

Customer Description:

Lab Number: 216298-015

Preparation:

Date Collected: 11/16/2021 12:00

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Arsenic	0.99	µg/L	1	0.10	0.03		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Barium	46.0	µg/L	1	0.20	0.05		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Beryllium	4.84	µg/L	1	0.050	0.007		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Boron	2.30	mg/L	1	0.050	0.009		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Cadmium	0.749	µg/L	1	0.020	0.004		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Calcium	4.67	mg/L	1	0.05	0.02		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Chromium	0.42	µg/L	1	0.20	0.04		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Cobalt	37.7	µg/L	1	0.020	0.003		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Iron	0.147	mg/L	1	0.020	0.006		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Lead	0.84	µg/L	1	0.20	0.05		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Lithium	0.0748	mg/L	1	0.00020	0.00005		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Magnesium	8.32	mg/L	1	0.10	0.02		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Manganese	0.0920	mg/L	1	0.0010	0.0002		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Mercury	510	ng/L	20	100	40		JAB	12/10/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Potassium	2.49	mg/L	1	0.10	0.02		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Selenium	3.20	µg/L	1	0.50	0.09		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Sodium	16.0	mg/L	1	0.20	0.05		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Strontium	0.0637	mg/L	1	0.0020	0.0004		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4
Thallium	0.25	µg/L	1	0.20	0.04		GES	11/30/2021 12:24	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: Duplicate - 2

Customer Description:

Lab Number: 216298-015-01

Preparation: Dissolved

Date Collected: 11/16/2021 12:00

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Arsenic	0.95	µg/L	1	0.10	0.03		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Barium	44.6	µg/L	1	0.20	0.05		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Beryllium	4.66	µg/L	1	0.050	0.007		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Boron	2.36	mg/L	1	0.050	0.009		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Cadmium	0.711	µg/L	1	0.020	0.004		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Calcium	4.64	mg/L	1	0.05	0.02		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Chromium	0.50	µg/L	1	0.20	0.04		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Cobalt	36.6	µg/L	1	0.020	0.003		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Iron	0.484	mg/L	1	0.020	0.006		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Lead	0.78	µg/L	1	0.20	0.05		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Lithium	0.0743	mg/L	1	0.00020	0.00005		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Magnesium	8.09	mg/L	1	0.10	0.02		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Manganese	0.0919	mg/L	1	0.0010	0.0002		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Mercury	113	ng/L	2	10	4		JAB	12/10/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Potassium	2.47	mg/L	1	0.10	0.02		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Selenium	3.26	µg/L	1	0.50	0.09		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Sodium	15.7	mg/L	1	0.20	0.05		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Strontium	0.0618	mg/L	1	0.0020	0.0004		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4
Thallium	0.27	µg/L	1	0.20	0.04		GES	11/30/2021 12:56	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Customer Sample ID: Equipment Blank

Customer Description:

Lab Number: 216298-016

Preparation:

Date Collected: 11/16/2021 10:46

Date Received: 11/22/2021 12:00

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Barium	0.08	µg/L	1	0.20	0.05	J1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.007	µg/L	1	0.050	0.007	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Boron	<0.009	mg/L	1	0.050	0.009	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Calcium	<0.02	mg/L	1	0.05	0.02	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Chromium	0.27	µg/L	1	0.20	0.04		GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Cobalt	0.012	µg/L	1	0.020	0.003	J1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Iron	<0.006	mg/L	1	0.020	0.006	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Lithium	<0.00005	mg/L	1	0.00020	0.00005	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Magnesium	<0.02	mg/L	1	0.10	0.02	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Manganese	<0.0002	mg/L	1	0.0010	0.0002	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	JAB	12/10/2021 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Potassium	<0.02	mg/L	1	0.10	0.02	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Selenium	<0.09	µg/L	1	0.50	0.09	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Sodium	<0.05	mg/L	1	0.20	0.05	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Strontium	<0.0004	mg/L	1	0.0020	0.0004	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4
Thallium	<0.04	µg/L	1	0.20	0.04	U1	GES	11/30/2021 14:38	EPA 200.8-1994, Rev. 5.4



Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 216298

Customer: Pirkey Power Station

Date Reported: 12/20/2021

Report Verification

This report and the above data have been confirmed by the following analyst.

Michael Ohlinger, Chemist

Email: msohlinger@aep.com

Phone: 614-836-4184

Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.

Data Qualifier Legend

U1 - Not detected at or above method detection limit (MDL).

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

M1 - The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.

P3 - The precision on the matrix spike duplicate (MSD) was above acceptance limits.

Dolan Chemical Laboratory (DCI)

4001 Bixby Road
Groveport, Ohio 43125Contact: Michael Ohlinger (614-836-4219)
Project Name: Pirkey PP CCR

Contact Name: Leslie Fuerischbach

Contact Phone: 318-673-2744

Sampler(s): Matt Hamilton Kenny McDonald

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Site Contact:

For Lab Use Only:

Analysis Turnaround Time (in Calendar Days)	Date:	COC/Order #:
6 Routine (28 days for Monitoring Wells)	216298 (pg)	RA-226, RA-228

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes
AD-2	11/16/2021	1010	G	GW	7	
AD-3	11/16/2021	1139	G	GW	7	
AD-4	11/16/2021	1108	G	GW	7	
AD-7	11/16/2021	837	G	GW	10	
AD-12	11/15/2021	1029	G	GW	7	
AD-13	11/15/2021	938	G	GW	7	
AD-17	11/16/2021	1052	G	GW	7	
AD-18	11/17/2021	825	G	GW	7	
AD-22	11/15/2021	1121	G	GW	7	
AD-28	11/16/2021	953	G	GW	7	
AD-30	11/15/2021	1212	G	GW	7	
AD-31	11/16/2021	858	G	GW	7	

* Preservation Used: 1= Ice, 2= HCl; 3= H₂SO₄; 4=HNO₃; 5=NaOH; 6= Other
 * Six 1L Bottles must be collected for Radium for every 10th sample.

Special Instructions/QC Requirements & Comments:

Relinquished by <i>Dolan</i>	Company <i>Env</i>	Date/Time: <i>11-18-21</i>	Received by <i>12:00</i>	Date/Time:
Relinquished by	Company:	Date/Time:	Received by	Date/Time:
Relinquished by	Company:	Date/Time:	Received in Laboratory by <i>Jeffrey Smith</i>	Date/Time: <i>11/22/21 12:30pm</i>



WATER & WASTE SAMPLE RECEIPT FORM

<u>Package Type</u>				<u>Delivery Type</u>			
Cooler	Box	Bag	Envelope	PONY	UPS	<input checked="" type="checkbox"/> FedEX	USPS
				Other _____			
<u>Plant/Customer</u> <u>PKH-1</u>				<u>Number of Plastic Containers:</u> <u>76</u>			
<u>Opened By</u> <u>MSJ</u>				<u>Number of Glass Containers:</u> <u>-</u>			
<u>Date/Time</u> <u>11/22/21</u> <u>12:30 PM</u>				<u>Number of Mercury Containers:</u> <u>31</u>			
Were all temperatures within 0-6°C? Y / N or N/A Initial: <u>MSJ</u> on ice / <input checked="" type="checkbox"/> no ice							
1(IR Gun Ser# <u>200700311</u> , Expir. <u>06-11-22</u>) - If No, specify each deviation: _____							
Was container in good condition? <input checked="" type="checkbox"/> Y / N Comments _____							
Was Chain of Custody received? <input checked="" type="checkbox"/> Y / N Comments _____							
Requested turnaround: <u>24hr</u> If RUSH, who was notified? _____							
pH (15 min)	Cr ⁶ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)			

Was COC filled out properly? Y / N Comments _____

Were samples labeled properly? Y / N Comments _____

Were correct containers used? Y / N Comments _____

Was pH checked & Color Coding done? Y / N or N/A Initial & Date: JAB/JWB / 11/22/21

pH paper (circle one): MQuant,PN1.09535.0001,LOT# HC904495 [OR] Lab Rat,PN4801,LOT# X000RWDG21

- Was Add'l Preservative needed? Y / N If Yes: By whom & when: _____ (See Prep Book)

Is sample filtration requested? Y / N Comments _____ (See Prep Book)

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 216298 Initial & Date & Time : _____

Logged by MSJ Comments: _____

Reviewed by SM _____

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.