

Prepared for
Illinois Power Resources Generating, LLC

Date
January 31, 2024

Project No.
1940103649-007

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

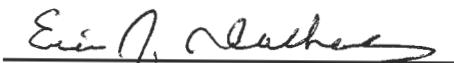
**ASH POND
EDWARDS POWER PLANT
BARTONVILLE, ILLINOIS
CCR UNIT 301**

**2023 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT ASH POND**

Project name	Edwards Power Plant Ash Pond	Ramboll
Project no.	1940103649-007	234 W. Florida Street
Recipient	Illinois Power Resources Generating, LLC	Fifth Floor
Document type	Annual Groundwater Monitoring and Corrective Action Report	Milwaukee, WI 53204
Version	FINAL	USA
Date	January 31, 2024	T 414-837-3607
Prepared by	Rachel A. Banoff, EIT	F 414-837-3608
Checked by	Lauren D. Cook	https://ramboll.com
Approved by	Eric J. Tlachac, PE	
Description	Annual Report required by 40 C.F.R. § 257.90(e)	



Rachel A. Banoff, EIT
Environmental Engineer



Eric J. Tlachac, PE
Senior Managing Engineer

CONTENTS

EXECUTIVE SUMMARY	3
1. Introduction	4
2. Monitoring and Corrective Action Program Status	6
3. Key Actions Completed in 2023	7
4. Problems Encountered and Actions to Resolve the Problems	9
5. Key Activities Planned for 2024	10
6. References	11

TABLES (IN TEXT)

Table A 2023 Assessment Monitoring Program Summary

TABLES (ATTACHED)

Table 1	Groundwater Elevations
Table 2	Analytical Results - Appendix III Parameters
Table 3	Analytical Results - Appendix IV Parameters
Table 4	Statistical Background Values
Table 5	Groundwater Protection Standards
Table 6	Determination of Statistically Significant Levels

FIGURES (ATTACHED)

Figure 1	Monitoring Well Location Map
Figure 2	Potentiometric Surface Map, February 27, 2023
Figure 3	Potentiometric Surface Map, June 12, 2023
Figure 4	Potentiometric Surface Map, August 21, 2023
Figure 5	Potentiometric Surface Map, October 27, 2023

APPENDICES

Appendix A	Laboratory Reports and Field Data Sheets
Appendix B	Statistical Methodology for Determination of Background Values
Appendix C	Statistical Methodology for Determination of Statistically Significant Levels

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
40 C.F.R.	Title 40 of the Code of Federal Regulations
A6	Quarter 1, 2023 Assessment Monitoring sampling event
A6R	Quarter 2, 2023 Assessment Monitoring resampling event
A6D	Quarter 3, 2023 Assessment Monitoring sampling event
A6DR	Quarter 4, 2023 Assessment Monitoring resampling event
ADD	Additional sample events outside of quarterly events
AP	Ash Pond
ASD	Alternative Source Demonstration
CCR	coal combustion residuals
CMA	Corrective Measures Assessment
EPP	Edwards Power Plant
GWPS	groundwater protection standard
IEPA	Illinois Environmental Protection Agency
NA	not applicable
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	Multi-Site Sampling and Analysis Plan
SSI	Statistically significant increase
SSL	statistically significant level

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.90(e) for the Ash Pond (AP) located at the Edwards Power Plant (EPP) near Bartonville, Illinois.

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

As discussed in **Section 3** of this annual report, the monitoring system was updated in 2023 to use the same monitoring system developed for compliance with Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845, which was submitted to the Illinois Environmental Protection Agency (IEPA) via an operating permit application.

No Statistically Significant Levels (SSLs) of 40 C.F.R. § 257 Appendix IV parameters over groundwater protection standards (GWPSs) were determined in 2023; therefore, a Corrective Measures Assessment (CMA) is not required. Statistically significant increases (SSIs) of Appendix III parameters above background values were determined as discussed in **Section 3**; therefore, the AP remains in the Assessment Monitoring Program.

1. INTRODUCTION

This report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of Illinois Power Resources Generating, LLC, to provide the information required by 40 C.F.R. § 257.90(e) for the AP located at the EPP near Bartonville, Illinois.

In accordance with 40 C.F.R. § 257.90(e), the owner or operator of a coal combustion residuals (CCR) unit must prepare an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year that documents the status of the Groundwater Monitoring and Corrective Action Program for the CCR unit (**Section 2**), summarizes key actions completed (**Section 3**), describes any problems encountered and actions to resolve the problems (**Section 4**), and projects key activities for the upcoming year (**Section 5**). At a minimum, the annual report must contain the following information, to the extent available:

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

- B. Provide the date when the Assessment Monitoring Program was initiated for the CCR unit.
- iv. If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in Appendix IV of §257 pursuant to §257.95(g) include all of the following:
 - A. Identify those constituents listed in Appendix IV of §257 and the names of the monitoring wells associated with such an increase.
 - B. Provide the date when the assessment of corrective measures was initiated for the CCR unit.
 - C. Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.
 - D. Provide the date when the assessment of corrective measures was completed for the CCR unit.
- v. Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection.
- vi. Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

This report provides the required information for the AP for calendar year 2023.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

No changes have occurred to the monitoring program status in calendar year 2023 and the AP remains in the Assessment Monitoring Program in accordance with 40 C.F.R. § 257.95.

3. KEY ACTIONS COMPLETED IN 2023

A summary of the samples collected from background and compliance monitoring wells in 2023 under the Assessment Monitoring Program is included in **Table A** on the following page. The groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. Beginning in 2023, the monitoring system was updated to be consistent with that proposed for compliance with 35 I.A.C. § 845, which includes all of the monitoring wells used in the 2022 40 C.F.R. § 257 monitoring system (Ramboll, 2022a). No wells were installed or decommissioned in 2023 (the wells added from the 35 I.A.C. § 845 monitoring system were installed prior to 2023).

One groundwater sample was collected from each background and compliance well during each monitoring event. The AP is also regulated under 35 I.A.C. § 845, which requires quarterly monitoring. The groundwater monitoring systems for both programs (35 I.A.C. § 845 and 40 C.F.R. § 257) are identical, so all available data from the four quarterly monitoring events in 2023 are included in this report. All samples were collected and analyzed in accordance with the Multi-Site Sampling and Analysis Plan (SAP) (Ramboll, 2023). Data collected in accordance with 35 I.A.C. § 845 was included for statistical calculations performed in accordance with 40 C.F.R. § 257.95(d)(1); however, SSLs are reported semiannually per 40 C.F.R. § 257.

Potentiometric surfaces for the quarterly sampling events are included in **Figures 2 through 5**. All monitoring data and analytical results obtained under 40 C.F.R. § 257.90 through 257.98 and 35 I.A.C. § 845 in 2023 are presented in **Tables 1 through 3**. All associated laboratory reports and field data sheets are included in **Appendix A**.

Analytical data were evaluated in accordance with the Multi-Site Statistical Analysis Plan (Ramboll, 2022b), the Multi-Site Quality Assurance Project Plan (Ramboll, 2022c), and the Multi-Site Data Management Plan (Ramboll, 2022d) to determine any SSLs of Appendix IV parameters over GWPSs and SSIs of Appendix III parameters greater than background values. SSL notifications were completed in accordance with 40 C.F.R. § 257.95(g). SSIs are highlighted in **Table 2**. Statistical background values are provided in **Table 4** and GWPSs in **Table 5**. A flow chart showing the statistical methodology for determination of background values is included as **Appendix B**. A summary of the determination of SSLs is included in **Table 6**. A flow chart showing the statistical methodology for determination of SSLs is included as **Appendix C**.

Table A. 2023 Assessment Monitoring Program Summary

Event ID	Sampling Dates ^{1, 2, 3}	Analytical Data Receipt Date ^{4, 5}	SSL(s) Determination Date	SSL(s)	ASD Completion Date
A6	February 27 - 28, 2023	July 13, 2023	October 11, 2023	None	NA
A6R	June 12 - 15, 2023	August 16, 2023	NA	NA	NA
A6D	August 21 - 23, 2023 and August 28 - 29, 2023	October 12, 2023	January 10, 2024	None	NA
A6DR	November 1 - 3, 2023 November 6, 2023, and November 17, 2023	December 14, 2023	NA	NA	NA

Notes:

ASD: Alternative Source Demonstration

NA: not applicable

SSL: Statistically Significant Level

¹ All samples were analyzed for Appendix III parameters listed in 40 C.F.R. § 257.94(e) and Appendix IV parameters listed in 40 C.F.R. § 257.95(g).

² The following background wells were sampled for each event: AP05S and AW-08

³ The following compliance wells were sampled for each event: AP07S, AW-01, AW-05, AW-06, AW-09, AW-10, AW-11, AW-14, AW-15, AW-15S, AW-16, AW-17, AW-18, AW-19, and AW-21

⁴ Data collected in accordance with 35 I.A.C. § 845 was included for statistical calculations performed in accordance with 40 C.F.R. § 257.95(d)(1); however, SSLs are reported semiannually per 40 C.F.R. § 257.

⁵ Additional samples were collected from well AW-01 and are identified on Table 2 and Table 3 as ADD events. The data was included for statistical calculations performed in accordance with 40 C.F.R. § 257.95(d)(1); however, SSLs are reported semiannually per 40 C.F.R. § 257.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the groundwater monitoring program during 2023. Groundwater samples were collected and analyzed in accordance with the SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2024

The following key activities are planned for 2024:

- Continuation of the Assessment Monitoring Program with semiannual sampling for reporting purposes scheduled for the first and third quarters of 2024 (and sampling for 35 I.A.C. § 845 scheduled for the second and fourth quarters).
- Complete evaluation of analytical data from the compliance wells to determine whether an SSL of Appendix IV parameters above GWPSs has occurred.
- If an SSL is identified, potential alternative sources (*i.e.*, a source other than the CCR unit caused the SSL or that the SSL resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality) will be evaluated.
 - If an alternative source is identified to be the cause of the SSL, a written demonstration will be completed within 90 days of SSL determination and included in the 2024 Annual Groundwater Monitoring and Corrective Action Report.
 - If an alternative source(s) is not identified to be the cause of the SSL, the applicable requirements of 40 C.F.R. §§ 257.94 through 257.98 (*e.g.*, assessment of corrective measures) as may apply in 2024 will be met, including associated recordkeeping/notifications required by 40 C.F.R. §§ 257.105 through 257.108.

6. REFERENCES

Code of Federal Regulations, Title 40, Chapter I, Subchapter I, Part 257, Subpart D, Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, effective April 17, 2015. Accessed from URL <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-257/subpart-D#page-top>

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022a. 40 C.F.R. § 257 Groundwater Monitoring Plan, Ash Pond, Edwards Power Plant, Bartonville, Illinois. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022b. Multi-Site Statistical Analysis Plan, 40 C.F.R. § 257. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022c. Multi-Site Quality Assurance Project Plan. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022d. Multi-Site Data Management Plan. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023. Multi-Site Sampling and Analysis Plan, Revision 1. October 10, 2023.

TABLES

TABLE 1
GROUNDWATER ELEVATION DATA

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
AP05S	Background	UA	02/27/2023	4.82	438.46
AP05S	Background	UA	04/12/2023	4.13	439.14
AP05S	Background	UA	05/12/2023	4.39	438.88
AP05S	Background	UA	06/12/2023	5.45	437.82
AP05S	Background	UA	07/21/2023	5.95	437.32
AP05S	Background	UA	08/21/2023	5.90	437.37
AP05S	Background	UA	09/27/2023	6.42	436.85
AP05S	Background	UA	10/27/2023	6.23	437.05
AP05S	Background	UA	11/20/2023	6.36	436.92
AP05S	Background	UA	12/27/2023	5.83	437.45
AP07S	Compliance	PMP	02/27/2023	24.30	436.78
AP07S	Compliance	PMP	04/12/2023	24.37	436.70
AP07S	Compliance	PMP	05/12/2023	24.74	436.33
AP07S	Compliance	PMP	06/12/2023	25.48	435.59
AP07S	Compliance	PMP	07/21/2023	25.36	435.72
AP07S	Compliance	PMP	08/21/2023	25.01	436.07
AP07S	Compliance	PMP	09/12/2023	[25.47]	[435.61]
AP07S	Compliance	PMP	10/27/2023	25.38	435.70
AP07S	Compliance	PMP	11/20/2023	25.38	435.70
AP07S	Compliance	PMP	12/27/2023	24.63	436.45
AW-01	Compliance	PMP	02/27/2023	4.20	460.23
AW-01	Compliance	PMP	04/12/2023	9.78	454.64
AW-01	Compliance	PMP	05/12/2023	9.88	454.54
AW-01	Compliance	PMP	06/12/2023	10.09	454.33
AW-01	Compliance	PMP	07/21/2023	10.40	454.02
AW-01	Compliance	PMP	08/21/2023	10.33	454.09
AW-01	Compliance	PMP	09/27/2023	10.54	453.89
AW-01	Compliance	PMP	10/27/2023	10.12	454.31
AW-01	Compliance	PMP	11/20/2023	12.04	452.39
AW-01	Compliance	PMP	12/27/2023	9.74	454.69
AW-05	Compliance	UA	02/27/2023	7.61	435.76
AW-05	Compliance	UA	04/12/2023	7.94	435.43
AW-05	Compliance	UA	05/12/2023	8.19	435.18
AW-05	Compliance	UA	06/12/2023	9.06	434.30
AW-05	Compliance	UA	07/21/2023	8.91	434.46
AW-05	Compliance	UA	08/21/2023	8.79	434.58
AW-05	Compliance	UA	09/27/2023	8.79	434.58
AW-05	Compliance	UA	10/27/2023	8.43	434.94
AW-05	Compliance	UA	11/20/2023	8.81	434.56
AW-05	Compliance	UA	12/27/2023	8.21	435.16
AW-06	Compliance	UA	02/27/2023	26.89	434.68
AW-06	Compliance	UA	04/12/2023	27.29	434.27
AW-06	Compliance	UA	05/12/2023	27.34	434.22
AW-06	Compliance	UA	06/12/2023	27.59	433.97
AW-06	Compliance	UA	07/21/2023	27.81	433.75
AW-06	Compliance	UA	08/21/2023	27.58	433.98

TABLE 1
GROUNDWATER ELEVATION DATA

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
AW-06	Compliance	UA	09/27/2023	27.67	433.90
AW-06	Compliance	UA	10/27/2023	27.48	434.09
AW-06	Compliance	UA	11/20/2023	27.39	434.18
AW-06	Compliance	UA	12/27/2023	27.00	434.57
AW-08	Background	UA	02/27/2023	24.58	437.96
AW-08	Background	UA	04/12/2023	22.06	440.47
AW-08	Background	UA	05/12/2023	22.88	439.65
AW-08	Background	UA	06/12/2023	23.99	438.54
AW-08	Background	UA	07/21/2023	24.84	437.69
AW-08	Background	UA	08/21/2023	24.84	437.69
AW-08	Background	UA	09/27/2023	25.34	437.20
AW-08	Background	UA	10/27/2023	25.41	437.13
AW-08	Background	UA	11/20/2023	25.78	436.76
AW-08	Background	UA	12/27/2023	25.00	437.54
AW-09	Compliance	UA	02/27/2023	25.94	435.51
AW-09	Compliance	UA	04/12/2023	26.40	435.04
AW-09	Compliance	UA	05/12/2023	26.50	434.94
AW-09	Compliance	UA	06/12/2023	26.64	434.80
AW-09	Compliance	UA	07/21/2023	26.95	434.50
AW-09	Compliance	UA	08/21/2023	26.81	434.64
AW-09	Compliance	UA	09/27/2023	26.97	434.48
AW-09	Compliance	UA	10/27/2023	27.29	434.16
AW-09	Compliance	UA	11/20/2023	27.09	434.36
AW-09	Compliance	UA	12/27/2023	26.42	435.03
AW-10	Compliance	UA	02/27/2023	1.55	438.38
AW-10	Compliance	UA	04/12/2023	1.89	438.03
AW-10	Compliance	UA	05/12/2023	1.93	437.99
AW-10	Compliance	UA	06/12/2023	2.19	437.73
AW-10	Compliance	UA	08/28/2023	[2.35]	[437.58]
AW-10	Compliance	UA	08/28/2023	[2.35]	[437.58]
AW-10	Compliance	UA	09/11/2023	[2.23]	[437.70]
AW-10	Compliance	UA	10/27/2023	2.33	437.60
AW-10	Compliance	UA	11/20/2023	2.54	437.39
AW-10	Compliance	UA	12/27/2023	2.24	437.69
AW-11	Compliance	UA	02/27/2023	5.69	434.18
AW-11	Compliance	UA	04/12/2023	5.44	434.42
AW-11	Compliance	UA	05/12/2023	5.42	434.44
AW-11	Compliance	UA	06/12/2023	5.74	434.12
AW-11	Compliance	UA	07/21/2023	6.35	433.51
AW-11	Compliance	UA	08/21/2023	6.32	433.54
AW-11	Compliance	UA	09/27/2023	6.56	433.31
AW-11	Compliance	UA	10/27/2023	7.03	432.84
AW-11	Compliance	UA	11/20/2023	6.88	432.99
AW-11	Compliance	UA	12/27/2023	6.39	433.48
AW-14	Compliance	UA	02/27/2023	6.88	432.52
AW-14	Compliance	UA	06/12/2023	7.33	432.07

TABLE 1
GROUNDWATER ELEVATION DATA

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
AW-14	Compliance	UA	08/21/2023	7.07	432.33
AW-14	Compliance	UA	10/27/2023	8.30	431.10
AW-15	Compliance	UA	02/27/2023	8.92	432.59
AW-15	Compliance	UA	04/12/2023	8.14	433.36
AW-15	Compliance	UA	05/12/2023	8.00	433.50
AW-15	Compliance	UA	06/12/2023	8.09	433.41
AW-15	Compliance	UA	07/21/2023	8.51	432.99
AW-15	Compliance	UA	08/21/2023	8.68	432.82
AW-15	Compliance	UA	10/27/2023	10.02	431.49
AW-15	Compliance	UA	11/20/2023	9.99	431.52
AW-15	Compliance	UA	12/27/2023	9.52	431.99
AW-15S	Compliance	PMP	02/27/2023	10.05	430.66
AW-15S	Compliance	PMP	04/12/2023	9.46	431.24
AW-15S	Compliance	PMP	05/12/2023	9.46	431.24
AW-15S	Compliance	PMP	06/12/2023	9.94	430.76
AW-15S	Compliance	PMP	07/21/2023	10.06	430.64
AW-15S	Compliance	PMP	08/21/2023	9.82	430.88
AW-15S	Compliance	PMP	09/27/2023	10.25	430.46
AW-15S	Compliance	PMP	10/27/2023	10.04	430.67
AW-15S	Compliance	PMP	11/20/2023	11.08	429.63
AW-15S	Compliance	PMP	12/27/2023	9.52	431.19
AW-16	Compliance	UA	02/27/2023	24.60	437.19
AW-16	Compliance	UA	04/12/2023	24.54	437.24
AW-16	Compliance	UA	05/12/2023	24.44	437.34
AW-16	Compliance	UA	06/12/2023	24.69	437.09
AW-16	Compliance	UA	07/21/2023	25.05	436.73
AW-16	Compliance	UA	08/21/2023	25.21	436.58
AW-16	Compliance	UA	09/27/2023	25.59	436.20
AW-16	Compliance	UA	10/27/2023	25.92	435.87
AW-16	Compliance	UA	11/20/2023	26.05	435.74
AW-16	Compliance	UA	12/27/2023	25.62	436.17
AW-17	Compliance	UA	02/27/2023	24.85	437.25
AW-17	Compliance	UA	04/12/2023	25.29	436.80
AW-17	Compliance	UA	05/12/2023	25.32	436.77
AW-17	Compliance	UA	06/12/2023	25.42	436.67
AW-17	Compliance	UA	07/21/2023	25.95	436.14
AW-17	Compliance	UA	08/21/2023	26.14	435.96
AW-17	Compliance	UA	09/27/2023	26.20	435.90
AW-17	Compliance	UA	10/27/2023	26.56	435.54
AW-17	Compliance	UA	11/20/2023	26.52	435.58
AW-17	Compliance	UA	12/27/2023	26.08	436.02
AW-18	Compliance	UA	02/27/2023	26.96	435.69
AW-18	Compliance	UA	04/12/2023	27.84	434.80
AW-18	Compliance	UA	05/12/2023	27.93	434.71
AW-18	Compliance	UA	06/12/2023	28.14	434.50
AW-18	Compliance	UA	07/21/2023	27.99	434.65

TABLE 1
GROUNDWATER ELEVATION DATA

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
AW-18	Compliance	UA	08/21/2023	27.79	434.85
AW-18	Compliance	UA	09/27/2023	28.01	434.64
AW-18	Compliance	UA	10/27/2023	28.00	434.65
AW-18	Compliance	UA	11/20/2023	27.96	434.69
AW-18	Compliance	UA	12/27/2023	27.33	435.32
AW-19	Compliance	UA	02/27/2023	13.39	447.35
AW-19	Compliance	UA	04/12/2023	14.46	446.27
AW-19	Compliance	UA	05/12/2023	14.53	446.20
AW-19	Compliance	UA	06/12/2023	14.69	446.04
AW-19	Compliance	UA	07/21/2023	14.34	446.39
AW-19	Compliance	UA	08/21/2023	14.19	446.54
AW-19	Compliance	UA	10/27/2023	14.16	446.58
AW-19	Compliance	UA	11/20/2023	14.05	446.69
AW-19	Compliance	UA	12/27/2023	13.81	446.93
AW-21	Compliance	UA	02/27/2023	16.35	444.26
AW-21	Compliance	UA	04/12/2023	17.92	442.68
AW-21	Compliance	UA	05/12/2023	17.99	442.61
AW-21	Compliance	UA	06/12/2023	18.45	442.15
AW-21	Compliance	UA	07/21/2023	18.20	442.40
AW-21	Compliance	UA	08/21/2023	17.41	443.19
AW-21	Compliance	UA	09/27/2023	18.03	442.58
AW-21	Compliance	UA	10/27/2023	17.80	442.81
AW-21	Compliance	UA	11/20/2023	17.84	442.77
AW-21	Compliance	UA	12/27/2023	16.84	443.77
XPW01A	Water Level	CCR	02/27/2023	11.16	453.00
XPW01A	Water Level	CCR	04/12/2023	12.58	451.57
XPW01A	Water Level	CCR	05/12/2023	12.58	451.57
XPW01A	Water Level	CCR	06/12/2023	12.93	451.22
XPW01A	Water Level	CCR	07/21/2023	12.14	452.01
XPW01A	Water Level	CCR	08/21/2023	11.86	452.30
XPW01A	Water Level	CCR	09/27/2023	12.05	452.11
XPW01A	Water Level	CCR	10/27/2023	11.89	452.27
XPW01A	Water Level	CCR	11/20/2023	12.24	451.92
XPW01A	Water Level	CCR	12/27/2023	11.34	452.82
XPW02	Water Level	CCR	02/27/2023	19.78	454.01
XPW02	Water Level	CCR	04/12/2023	21.29	452.49
XPW02	Water Level	CCR	05/12/2023	21.55	452.23
XPW02	Water Level	CCR	06/12/2023	22.09	451.69
XPW02	Water Level	CCR	07/21/2023	21.99	451.79
XPW02	Water Level	CCR	08/21/2023	20.77	453.01
XPW02	Water Level	CCR	08/22/2023	[20.65]	[453.14]
XPW02	Water Level	CCR	10/27/2023	21.63	452.16
XPW02	Water Level	CCR	11/20/2023	21.48	452.31
XPW02	Water Level	CCR	12/27/2023	20.42	453.37
XPW03	Water Level	CCR	02/27/2023	16.34	449.70
XPW03	Water Level	CCR	04/12/2023	17.71	448.32

TABLE 1
GROUNDWATER ELEVATION DATA

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
XPW03	Water Level	CCR	05/12/2023	17.77	448.26
XPW03	Water Level	CCR	06/12/2023	18.20	447.83
XPW03	Water Level	CCR	07/21/2023	18.01	448.03
XPW03	Water Level	CCR	08/21/2023	17.20	448.84
XPW03	Water Level	CCR	08/28/2023	[17.51]	[448.53]
XPW03	Water Level	CCR	10/27/2023	18.23	447.81
XPW03	Water Level	CCR	11/20/2023	18.36	447.68
XPW03	Water Level	CCR	12/27/2023	17.34	448.70
SG-01	Water Level	SW	02/27/2023	NA	441.00
SG-01	Water Level	SW	06/12/2023	NA	441.50
SG-01	Water Level	SW	08/21/2023	NA	435.00
SG-01	Water Level	SW	10/27/2023	NA	431.00
SG-01	Water Level	SW	11/20/2023	NA	440.04
SG-01	Water Level	SW	12/27/2023	NA	440.64

Notes:

Only wells with groundwater elevations measured are included.

BMP = below measuring point

Bracketing [] indicates that the measurement was obtained outside of the episodic depth to groundwater measurements time frame.

NA = not available/not applicable

NAVD88 = North American Vertical Datum of 1988

Monitored Unit Abbreviations:

CCR = coal combustion residuals

PMP = potential migration pathway

SW = surface water

UA = uppermost aquifer

Generated 2024-01-14 02:04:21.014824 by banoffra

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AP05S	UA	Background	02/28/2023	A6	Boron, total	mg/L	0.340	NA	NA
AP05S	UA	Background	06/14/2023	A6R	Boron, total	mg/L	0.330 J+	NA	NA
AP05S	UA	Background	08/23/2023	A6D	Boron, total	mg/L	0.320 J+	NA	NA
AP05S	UA	Background	11/06/2023	A6DR	Boron, total	mg/L	0.330 J+	NA	NA
AP05S	UA	Background	02/28/2023	A6	Calcium, total	mg/L	120	NA	NA
AP05S	UA	Background	06/14/2023	A6R	Calcium, total	mg/L	110	NA	NA
AP05S	UA	Background	08/23/2023	A6D	Calcium, total	mg/L	100	NA	NA
AP05S	UA	Background	11/06/2023	A6DR	Calcium, total	mg/L	110	NA	NA
AP05S	UA	Background	02/28/2023	A6	Chloride, total	mg/L	33.0	NA	NA
AP05S	UA	Background	06/14/2023	A6R	Chloride, total	mg/L	46.0	NA	NA
AP05S	UA	Background	08/23/2023	A6D	Chloride, total	mg/L	41.0	NA	NA
AP05S	UA	Background	11/06/2023	A6DR	Chloride, total	mg/L	46.0	NA	NA
AP05S	UA	Background	02/28/2023	A6	Fluoride, total	mg/L	0.088 J	NA	NA
AP05S	UA	Background	06/14/2023	A6R	Fluoride, total	mg/L	0.04 U	NA	NA
AP05S	UA	Background	08/23/2023	A6D	Fluoride, total	mg/L	0.095 J	NA	NA
AP05S	UA	Background	11/06/2023	A6DR	Fluoride, total	mg/L	0.04 U	NA	NA
AP05S	UA	Background	02/28/2023	A6	pH (field)	SU	7.0	NA	NA
AP05S	UA	Background	06/14/2023	A6R	pH (field)	SU	6.8	NA	NA
AP05S	UA	Background	08/23/2023	A6D	pH (field)	SU	6.9	NA	NA
AP05S	UA	Background	11/06/2023	A6DR	pH (field)	SU	6.8	NA	NA
AP05S	UA	Background	02/28/2023	A6	Sulfate, total	mg/L	14.0	NA	NA
AP05S	UA	Background	06/14/2023	A6R	Sulfate, total	mg/L	3.10	NA	NA
AP05S	UA	Background	08/23/2023	A6D	Sulfate, total	mg/L	5.60	NA	NA
AP05S	UA	Background	11/06/2023	A6DR	Sulfate, total	mg/L	0.18 U	NA	NA
AP05S	UA	Background	02/28/2023	A6	Total Dissolved Solids	mg/L	820	NA	NA
AP05S	UA	Background	06/14/2023	A6R	Total Dissolved Solids	mg/L	1,400 J+	NA	NA
AP05S	UA	Background	08/23/2023	A6D	Total Dissolved Solids	mg/L	890 J	NA	NA
AP05S	UA	Background	11/06/2023	A6DR	Total Dissolved Solids	mg/L	960	NA	NA
AW-08	UA	Background	02/28/2023	A6	Boron, total	mg/L	0.100	NA	NA
AW-08	UA	Background	06/14/2023	A6R	Boron, total	mg/L	0.0920 J+	NA	NA
AW-08	UA	Background	08/28/2023	A6D	Boron, total	mg/L	0.120 J+	NA	NA
AW-08	UA	Background	11/06/2023	A6DR	Boron, total	mg/L	0.350 J+	NA	NA
AW-08	UA	Background	02/28/2023	A6	Calcium, total	mg/L	140	NA	NA
AW-08	UA	Background	06/14/2023	A6R	Calcium, total	mg/L	140	NA	NA
AW-08	UA	Background	08/28/2023	A6D	Calcium, total	mg/L	140	NA	NA
AW-08	UA	Background	11/06/2023	A6DR	Calcium, total	mg/L	760	NA	NA
AW-08	UA	Background	02/28/2023	A6	Chloride, total	mg/L	14.0	NA	NA
AW-08	UA	Background	06/14/2023	A6R	Chloride, total	mg/L	16.0	NA	NA
AW-08	UA	Background	08/28/2023	A6D	Chloride, total	mg/L	15.0	NA	NA
AW-08	UA	Background	11/06/2023	A6DR	Chloride, total	mg/L	20.0	NA	NA
AW-08	UA	Background	02/28/2023	A6	Fluoride, total	mg/L	0.223 J	NA	NA
AW-08	UA	Background	06/14/2023	A6R	Fluoride, total	mg/L	0.0669 J	NA	NA
AW-08	UA	Background	08/28/2023	A6D	Fluoride, total	mg/L	0.195 J	NA	NA
AW-08	UA	Background	11/06/2023	A6DR	Fluoride, total	mg/L	0.175 J	NA	NA
AW-08	UA	Background	02/28/2023	A6	pH (field)	SU	8.9	NA	NA
AW-08	UA	Background	06/14/2023	A6R	pH (field)	SU	7.1	NA	NA

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-08	UA	Background	08/28/2023	A6D	pH (field)	SU	6.9	NA	NA
AW-08	UA	Background	11/06/2023	A6DR	pH (field)	SU	7.3	NA	NA
AW-08	UA	Background	02/28/2023	A6	Sulfate, total	mg/L	0.35 J	NA	NA
AW-08	UA	Background	06/14/2023	A6R	Sulfate, total	mg/L	0.18 U	NA	NA
AW-08	UA	Background	08/28/2023	A6D	Sulfate, total	mg/L	0.18 U	NA	NA
AW-08	UA	Background	11/06/2023	A6DR	Sulfate, total	mg/L	0.18 U	NA	NA
AW-08	UA	Background	02/28/2023	A6	Total Dissolved Solids	mg/L	740	NA	NA
AW-08	UA	Background	06/14/2023	A6R	Total Dissolved Solids	mg/L	660 J+	NA	NA
AW-08	UA	Background	08/28/2023	A6D	Total Dissolved Solids	mg/L	720	NA	NA
AW-08	UA	Background	11/06/2023	A6DR	Total Dissolved Solids	mg/L	720	NA	NA
AP07S	PMP	Compliance	02/28/2023	A6	Boron, total	mg/L	7.90	0.429	Confirmed
AP07S	PMP	Compliance	06/15/2023	A6R	Boron, total	mg/L	18.0	0.429	Confirmed
AP07S	PMP	Compliance	08/28/2023	A6D	Boron, total	mg/L	9.40	0.429	Confirmed
AP07S	PMP	Compliance	11/03/2023	A6DR	Boron, total	mg/L	8.20	0.429	Confirmed
AP07S	PMP	Compliance	02/28/2023	A6	Calcium, total	mg/L	130	177	No Exceedance
AP07S	PMP	Compliance	06/15/2023	A6R	Calcium, total	mg/L	240	177	Exceedance Not Confirmed
AP07S	PMP	Compliance	08/28/2023	A6D	Calcium, total	mg/L	160	177	No Exceedance
AP07S	PMP	Compliance	11/03/2023	A6DR	Calcium, total	mg/L	130	177	No Exceedance
AP07S	PMP	Compliance	02/28/2023	A6	Chloride, total	mg/L	73.0	44.0	Confirmed
AP07S	PMP	Compliance	06/15/2023	A6R	Chloride, total	mg/L	76.0	44.0	Confirmed
AP07S	PMP	Compliance	08/28/2023	A6D	Chloride, total	mg/L	83.0	44.0	Confirmed
AP07S	PMP	Compliance	11/03/2023	A6DR	Chloride, total	mg/L	73.0	44.0	Confirmed
AP07S	PMP	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.248 J	0.376	No Exceedance
AP07S	PMP	Compliance	06/15/2023	A6R	Fluoride, total	mg/L	0.151 J	0.376	No Exceedance
AP07S	PMP	Compliance	08/28/2023	A6D	Fluoride, total	mg/L	0.215 J	0.376	No Exceedance
AP07S	PMP	Compliance	11/03/2023	A6DR	Fluoride, total	mg/L	0.229 J	0.376	No Exceedance
AP07S	PMP	Compliance	02/28/2023	A6	pH (field)	SU	7.1	6.6/7.4	No Exceedance
AP07S	PMP	Compliance	06/15/2023	A6R	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AP07S	PMP	Compliance	08/28/2023	A6D	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AP07S	PMP	Compliance	11/03/2023	A6DR	pH (field)	SU	7.5	6.6/7.4	Exceedance Not Confirmed
AP07S	PMP	Compliance	02/28/2023	A6	Sulfate, total	mg/L	180	80.7	Confirmed
AP07S	PMP	Compliance	06/15/2023	A6R	Sulfate, total	mg/L	480	80.7	Confirmed
AP07S	PMP	Compliance	08/28/2023	A6D	Sulfate, total	mg/L	240	80.7	Confirmed
AP07S	PMP	Compliance	11/03/2023	A6DR	Sulfate, total	mg/L	180	80.7	Confirmed
AP07S	PMP	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	720	955	No Exceedance
AP07S	PMP	Compliance	06/15/2023	A6R	Total Dissolved Solids	mg/L	1,600	955	Exceedance Not Confirmed
AP07S	PMP	Compliance	08/28/2023	A6D	Total Dissolved Solids	mg/L	880	955	No Exceedance
AP07S	PMP	Compliance	11/03/2023	A6DR	Total Dissolved Solids	mg/L	720	955	No Exceedance
AW-01	PMP	Compliance	01/10/2023	ADD	Boron, total	mg/L	0.0750	NA	NA
AW-01	PMP	Compliance	02/28/2023	A6	Boron, total	mg/L	1.10	0.429	Exceedance Not Confirmed
AW-01	PMP	Compliance	06/14/2023	A6R	Boron, total	mg/L	0.0720 J+	0.429	No Exceedance
AW-01	PMP	Compliance	08/22/2023	A6D	Boron, total	mg/L	0.0920 J+	0.429	No Exceedance
AW-01	PMP	Compliance	11/06/2023	A6DR	Boron, total	mg/L	0.0860 J+	0.429	No Exceedance
AW-01	PMP	Compliance	01/10/2023	ADD	Calcium, total	mg/L	170	NA	NA

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-01	PMP	Compliance	02/28/2023	A6	Calcium, total	mg/L	180	177	Confirmed
AW-01	PMP	Compliance	06/14/2023	A6R	Calcium, total	mg/L	180	177	Confirmed
AW-01	PMP	Compliance	08/22/2023	A6D	Calcium, total	mg/L	190	177	Confirmed
AW-01	PMP	Compliance	11/06/2023	A6DR	Calcium, total	mg/L	190	177	Confirmed
AW-01	PMP	Compliance	01/10/2023	ADD	Chloride, total	mg/L	14.0	NA	NA
AW-01	PMP	Compliance	02/28/2023	A6	Chloride, total	mg/L	110	44.0	Exceedance Not Confirmed
AW-01	PMP	Compliance	06/14/2023	A6R	Chloride, total	mg/L	10.0	44.0	No Exceedance
AW-01	PMP	Compliance	08/22/2023	A6D	Chloride, total	mg/L	12.0	44.0	No Exceedance
AW-01	PMP	Compliance	11/06/2023	A6DR	Chloride, total	mg/L	10.0	44.0	No Exceedance
AW-01	PMP	Compliance	01/10/2023	ADD	Fluoride, total	mg/L	0.277	NA	NA
AW-01	PMP	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.177 J	0.376	No Exceedance
AW-01	PMP	Compliance	06/14/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-01	PMP	Compliance	08/22/2023	A6D	Fluoride, total	mg/L	0.280	0.376	No Exceedance
AW-01	PMP	Compliance	11/06/2023	A6DR	Fluoride, total	mg/L	0.14 J	0.376	No Exceedance
AW-01	PMP	Compliance	01/10/2023	ADD	pH (field)	SU	6.8	NA	NA
AW-01	PMP	Compliance	02/28/2023	A6	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-01	PMP	Compliance	06/14/2023	A6R	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-01	PMP	Compliance	08/22/2023	A6D	pH (field)	SU	6.6	6.6/7.4	No Exceedance
AW-01	PMP	Compliance	11/06/2023	A6DR	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-01	PMP	Compliance	01/10/2023	ADD	Sulfate, total	mg/L	41.0	NA	NA
AW-01	PMP	Compliance	02/28/2023	A6	Sulfate, total	mg/L	280	80.7	Exceedance Not Confirmed
AW-01	PMP	Compliance	06/14/2023	A6R	Sulfate, total	mg/L	52.0	80.7	No Exceedance
AW-01	PMP	Compliance	08/22/2023	A6D	Sulfate, total	mg/L	52.0	80.7	No Exceedance
AW-01	PMP	Compliance	11/06/2023	A6DR	Sulfate, total	mg/L	50.0	80.7	No Exceedance
AW-01	PMP	Compliance	01/10/2023	ADD	Total Dissolved Solids	mg/L	760	NA	NA
AW-01	PMP	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	1,000	955	Exceedance Not Confirmed
AW-01	PMP	Compliance	06/14/2023	A6R	Total Dissolved Solids	mg/L	780 J+	955	No Exceedance
AW-01	PMP	Compliance	08/22/2023	A6D	Total Dissolved Solids	mg/L	830	955	No Exceedance
AW-01	PMP	Compliance	11/06/2023	A6DR	Total Dissolved Solids	mg/L	770	955	No Exceedance
AW-05	UA	Compliance	02/28/2023	A6	Boron, total	mg/L	4.50	0.429	Confirmed
AW-05	UA	Compliance	06/15/2023	A6R	Boron, total	mg/L	3.60	0.429	Confirmed
AW-05	UA	Compliance	08/28/2023	A6D	Boron, total	mg/L	8.60	0.429	Confirmed
AW-05	UA	Compliance	11/06/2023	A6DR	Boron, total	mg/L	11.0	0.429	Confirmed
AW-05	UA	Compliance	02/28/2023	A6	Calcium, total	mg/L	170	177	No Exceedance
AW-05	UA	Compliance	06/15/2023	A6R	Calcium, total	mg/L	170	177	No Exceedance
AW-05	UA	Compliance	08/28/2023	A6D	Calcium, total	mg/L	180	177	Confirmed
AW-05	UA	Compliance	11/06/2023	A6DR	Calcium, total	mg/L	180	177	Confirmed
AW-05	UA	Compliance	02/28/2023	A6	Chloride, total	mg/L	78.0	44.0	Confirmed
AW-05	UA	Compliance	06/15/2023	A6R	Chloride, total	mg/L	71.0	44.0	Confirmed
AW-05	UA	Compliance	08/28/2023	A6D	Chloride, total	mg/L	78.0	44.0	Confirmed
AW-05	UA	Compliance	11/06/2023	A6DR	Chloride, total	mg/L	81.0	44.0	Confirmed
AW-05	UA	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.186 J	0.376	No Exceedance
AW-05	UA	Compliance	06/15/2023	A6R	Fluoride, total	mg/L	0.173 J	0.376	No Exceedance
AW-05	UA	Compliance	08/28/2023	A6D	Fluoride, total	mg/L	0.166 J	0.376	No Exceedance
AW-05	UA	Compliance	11/06/2023	A6DR	Fluoride, total	mg/L	0.139 J	0.376	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-05	UA	Compliance	02/28/2023	A6	pH (field)	SU	7.2	6.6/7.4	No Exceedance
AW-05	UA	Compliance	06/15/2023	A6R	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-05	UA	Compliance	08/28/2023	A6D	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-05	UA	Compliance	11/06/2023	A6DR	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-05	UA	Compliance	02/28/2023	A6	Sulfate, total	mg/L	320	80.7	Confirmed
AW-05	UA	Compliance	06/15/2023	A6R	Sulfate, total	mg/L	350	80.7	Confirmed
AW-05	UA	Compliance	08/28/2023	A6D	Sulfate, total	mg/L	460	80.7	Exceedance Not Confirmed
AW-05	UA	Compliance	11/06/2023	A6DR	Sulfate, total	mg/L	5.70	80.7	No Exceedance
AW-05	UA	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	1,100	955	Confirmed
AW-05	UA	Compliance	06/15/2023	A6R	Total Dissolved Solids	mg/L	1,100	955	Confirmed
AW-05	UA	Compliance	08/28/2023	A6D	Total Dissolved Solids	mg/L	1,200	955	Confirmed
AW-05	UA	Compliance	11/06/2023	A6DR	Total Dissolved Solids	mg/L	1,300	955	Confirmed
AW-06	UA	Compliance	02/28/2023	A6	Boron, total	mg/L	0.180	0.429	No Exceedance
AW-06	UA	Compliance	06/14/2023	A6R	Boron, total	mg/L	0.120 J+	0.429	No Exceedance
AW-06	UA	Compliance	08/28/2023	A6D	Boron, total	mg/L	0.130 J+	0.429	No Exceedance
AW-06	UA	Compliance	11/06/2023	A6DR	Boron, total	mg/L	0.150 J+	0.429	No Exceedance
AW-06	UA	Compliance	02/28/2023	A6	Calcium, total	mg/L	110	177	No Exceedance
AW-06	UA	Compliance	06/14/2023	A6R	Calcium, total	mg/L	100	177	No Exceedance
AW-06	UA	Compliance	08/28/2023	A6D	Calcium, total	mg/L	120	177	No Exceedance
AW-06	UA	Compliance	11/06/2023	A6DR	Calcium, total	mg/L	110	177	No Exceedance
AW-06	UA	Compliance	02/28/2023	A6	Chloride, total	mg/L	31.0	44.0	No Exceedance
AW-06	UA	Compliance	06/14/2023	A6R	Chloride, total	mg/L	35.0	44.0	No Exceedance
AW-06	UA	Compliance	08/28/2023	A6D	Chloride, total	mg/L	33.0	44.0	No Exceedance
AW-06	UA	Compliance	11/06/2023	A6DR	Chloride, total	mg/L	37.0	44.0	No Exceedance
AW-06	UA	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.327	0.376	No Exceedance
AW-06	UA	Compliance	06/14/2023	A6R	Fluoride, total	mg/L	0.319	0.376	No Exceedance
AW-06	UA	Compliance	08/28/2023	A6D	Fluoride, total	mg/L	0.284	0.376	No Exceedance
AW-06	UA	Compliance	11/06/2023	A6DR	Fluoride, total	mg/L	0.282	0.376	No Exceedance
AW-06	UA	Compliance	02/28/2023	A6	pH (field)	SU	7.4	6.6/7.4	No Exceedance
AW-06	UA	Compliance	06/14/2023	A6R	pH (field)	SU	7.1	6.6/7.4	No Exceedance
AW-06	UA	Compliance	08/28/2023	A6D	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-06	UA	Compliance	11/06/2023	A6DR	pH (field)	SU	7.4	6.6/7.4	No Exceedance
AW-06	UA	Compliance	02/28/2023	A6	Sulfate, total	mg/L	22.0	80.7	No Exceedance
AW-06	UA	Compliance	06/14/2023	A6R	Sulfate, total	mg/L	21.0	80.7	No Exceedance
AW-06	UA	Compliance	08/28/2023	A6D	Sulfate, total	mg/L	27.0	80.7	No Exceedance
AW-06	UA	Compliance	11/06/2023	A6DR	Sulfate, total	mg/L	23.0	80.7	No Exceedance
AW-06	UA	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	610	955	No Exceedance
AW-06	UA	Compliance	06/14/2023	A6R	Total Dissolved Solids	mg/L	600 J+	955	No Exceedance
AW-06	UA	Compliance	08/28/2023	A6D	Total Dissolved Solids	mg/L	560	955	No Exceedance
AW-06	UA	Compliance	11/06/2023	A6DR	Total Dissolved Solids	mg/L	570	955	No Exceedance
AW-09	UA	Compliance	02/28/2023	A6	Boron, total	mg/L	0.100	0.429	No Exceedance
AW-09	UA	Compliance	06/12/2023	A6R	Boron, total	mg/L	0.260	0.429	No Exceedance
AW-09	UA	Compliance	08/29/2023	A6D	Boron, total	mg/L	0.310	0.429	No Exceedance
AW-09	UA	Compliance	11/06/2023	A6DR	Boron, total	mg/L	0.310 J+	0.429	No Exceedance
AW-09	UA	Compliance	02/28/2023	A6	Calcium, total	mg/L	140	177	No Exceedance
AW-09	UA	Compliance	06/12/2023	A6R	Calcium, total	mg/L	120	177	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-09	UA	Compliance	08/29/2023	A6D	Calcium, total	mg/L	120	177	No Exceedance
AW-09	UA	Compliance	11/06/2023	A6DR	Calcium, total	mg/L	120	177	No Exceedance
AW-09	UA	Compliance	02/28/2023	A6	Chloride, total	mg/L	26.0	44.0	No Exceedance
AW-09	UA	Compliance	06/12/2023	A6R	Chloride, total	mg/L	29.0	44.0	No Exceedance
AW-09	UA	Compliance	08/29/2023	A6D	Chloride, total	mg/L	28.0	44.0	No Exceedance
AW-09	UA	Compliance	11/06/2023	A6DR	Chloride, total	mg/L	29.0	44.0	No Exceedance
AW-09	UA	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-09	UA	Compliance	06/12/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-09	UA	Compliance	08/29/2023	A6D	Fluoride, total	mg/L	0.145 J	0.376	No Exceedance
AW-09	UA	Compliance	11/06/2023	A6DR	Fluoride, total	mg/L	0.128 J	0.376	No Exceedance
AW-09	UA	Compliance	02/28/2023	A6	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-09	UA	Compliance	06/12/2023	A6R	pH (field)	SU	6.9	6.6/7.4	No Exceedance
AW-09	UA	Compliance	08/29/2023	A6D	pH (field)	SU	7.1	6.6/7.4	No Exceedance
AW-09	UA	Compliance	11/06/2023	A6DR	pH (field)	SU	7.1	6.6/7.4	No Exceedance
AW-09	UA	Compliance	02/28/2023	A6	Sulfate, total	mg/L	0.23 J	80.7	No Exceedance
AW-09	UA	Compliance	06/12/2023	A6R	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-09	UA	Compliance	08/29/2023	A6D	Sulfate, total	mg/L	0.22 J	80.7	No Exceedance
AW-09	UA	Compliance	11/06/2023	A6DR	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-09	UA	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	830	955	No Exceedance
AW-09	UA	Compliance	06/12/2023	A6R	Total Dissolved Solids	mg/L	790	955	No Exceedance
AW-09	UA	Compliance	08/29/2023	A6D	Total Dissolved Solids	mg/L	840	955	No Exceedance
AW-09	UA	Compliance	11/06/2023	A6DR	Total Dissolved Solids	mg/L	800	955	No Exceedance
AW-10	UA	Compliance	02/28/2023	A6	Boron, total	mg/L	0.520	0.429	Confirmed
AW-10	UA	Compliance	06/13/2023	A6R	Boron, total	mg/L	0.460	0.429	Confirmed
AW-10	UA	Compliance	08/28/2023	A6D	Boron, total	mg/L	0.500	0.429	Confirmed
AW-10	UA	Compliance	11/06/2023	A6DR	Boron, total	mg/L	0.470 J+	0.429	Confirmed
AW-10	UA	Compliance	02/28/2023	A6	Calcium, total	mg/L	140	177	No Exceedance
AW-10	UA	Compliance	06/13/2023	A6R	Calcium, total	mg/L	130	177	No Exceedance
AW-10	UA	Compliance	08/28/2023	A6D	Calcium, total	mg/L	140	177	No Exceedance
AW-10	UA	Compliance	11/06/2023	A6DR	Calcium, total	mg/L	140	177	No Exceedance
AW-10	UA	Compliance	02/28/2023	A6	Chloride, total	mg/L	85.0	44.0	Confirmed
AW-10	UA	Compliance	06/13/2023	A6R	Chloride, total	mg/L	89.0	44.0	Confirmed
AW-10	UA	Compliance	08/28/2023	A6D	Chloride, total	mg/L	86.0	44.0	Confirmed
AW-10	UA	Compliance	11/06/2023	A6DR	Chloride, total	mg/L	84.0	44.0	Confirmed
AW-10	UA	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.0973 J	0.376	No Exceedance
AW-10	UA	Compliance	06/13/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-10	UA	Compliance	08/28/2023	A6D	Fluoride, total	mg/L	0.182 J	0.376	No Exceedance
AW-10	UA	Compliance	11/06/2023	A6DR	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-10	UA	Compliance	02/28/2023	A6	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-10	UA	Compliance	06/13/2023	A6R	pH (field)	SU	6.9	6.6/7.4	No Exceedance
AW-10	UA	Compliance	08/28/2023	A6D	pH (field)	SU	6.4	6.6/7.4	Exceedance Not Confirmed
AW-10	UA	Compliance	11/06/2023	A6DR	pH (field)	SU	7.3	6.6/7.4	No Exceedance
AW-10	UA	Compliance	02/28/2023	A6	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-10	UA	Compliance	06/13/2023	A6R	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-10	UA	Compliance	08/28/2023	A6D	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-10	UA	Compliance	11/06/2023	A6DR	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-10	UA	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	1,300	955	Confirmed
AW-10	UA	Compliance	06/13/2023	A6R	Total Dissolved Solids	mg/L	1,200	955	Confirmed
AW-10	UA	Compliance	08/28/2023	A6D	Total Dissolved Solids	mg/L	1,300	955	Confirmed
AW-10	UA	Compliance	11/06/2023	A6DR	Total Dissolved Solids	mg/L	1,100	955	Confirmed
AW-11	UA	Compliance	02/28/2023	A6	Boron, total	mg/L	0.240	0.429	No Exceedance
AW-11	UA	Compliance	06/13/2023	A6R	Boron, total	mg/L	0.240	0.429	No Exceedance
AW-11	UA	Compliance	08/28/2023	A6D	Boron, total	mg/L	0.240 J+	0.429	No Exceedance
AW-11	UA	Compliance	11/03/2023	A6DR	Boron, total	mg/L	0.260 J+	0.429	No Exceedance
AW-11	UA	Compliance	02/28/2023	A6	Calcium, total	mg/L	170	177	No Exceedance
AW-11	UA	Compliance	06/13/2023	A6R	Calcium, total	mg/L	160	177	No Exceedance
AW-11	UA	Compliance	08/28/2023	A6D	Calcium, total	mg/L	170	177	No Exceedance
AW-11	UA	Compliance	11/03/2023	A6DR	Calcium, total	mg/L	160	177	No Exceedance
AW-11	UA	Compliance	02/28/2023	A6	Chloride, total	mg/L	30.0	44.0	No Exceedance
AW-11	UA	Compliance	06/13/2023	A6R	Chloride, total	mg/L	33.0	44.0	No Exceedance
AW-11	UA	Compliance	08/28/2023	A6D	Chloride, total	mg/L	32.0	44.0	No Exceedance
AW-11	UA	Compliance	11/03/2023	A6DR	Chloride, total	mg/L	33.0	44.0	No Exceedance
AW-11	UA	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.0647 J	0.376	No Exceedance
AW-11	UA	Compliance	06/13/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-11	UA	Compliance	08/28/2023	A6D	Fluoride, total	mg/L	0.153 J	0.376	No Exceedance
AW-11	UA	Compliance	11/03/2023	A6DR	Fluoride, total	mg/L	0.0662 J	0.376	No Exceedance
AW-11	UA	Compliance	02/28/2023	A6	pH (field)	SU	7.2	6.6/7.4	No Exceedance
AW-11	UA	Compliance	06/13/2023	A6R	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-11	UA	Compliance	08/28/2023	A6D	pH (field)	SU	6.3	6.6/7.4	Exceedance Not Confirmed
AW-11	UA	Compliance	11/03/2023	A6DR	pH (field)	SU	6.9	6.6/7.4	No Exceedance
AW-11	UA	Compliance	02/28/2023	A6	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-11	UA	Compliance	06/13/2023	A6R	Sulfate, total	mg/L	0.18 J	80.7	No Exceedance
AW-11	UA	Compliance	08/28/2023	A6D	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-11	UA	Compliance	11/03/2023	A6DR	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-11	UA	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	1,000	955	Confirmed
AW-11	UA	Compliance	06/13/2023	A6R	Total Dissolved Solids	mg/L	1,100	955	Confirmed
AW-11	UA	Compliance	08/28/2023	A6D	Total Dissolved Solids	mg/L	1,000	955	Exceedance Not Confirmed
AW-11	UA	Compliance	11/03/2023	A6DR	Total Dissolved Solids	mg/L	870	955	No Exceedance
AW-14	UA	Compliance	02/28/2023	A6	Boron, total	mg/L	0.180	0.429	No Exceedance
AW-14	UA	Compliance	06/13/2023	A6R	Boron, total	mg/L	0.180	0.429	No Exceedance
AW-14	UA	Compliance	08/23/2023	A6D	Boron, total	mg/L	0.180 J+	0.429	No Exceedance
AW-14	UA	Compliance	11/03/2023	A6DR	Boron, total	mg/L	0.240 J+	0.429	No Exceedance
AW-14	UA	Compliance	02/28/2023	A6	Calcium, total	mg/L	170	177	No Exceedance
AW-14	UA	Compliance	06/13/2023	A6R	Calcium, total	mg/L	180	177	Exceedance Not Confirmed
AW-14	UA	Compliance	08/23/2023	A6D	Calcium, total	mg/L	170	177	No Exceedance
AW-14	UA	Compliance	11/03/2023	A6DR	Calcium, total	mg/L	170	177	No Exceedance
AW-14	UA	Compliance	02/28/2023	A6	Chloride, total	mg/L	21.0	44.0	No Exceedance
AW-14	UA	Compliance	06/13/2023	A6R	Chloride, total	mg/L	24.0	44.0	No Exceedance
AW-14	UA	Compliance	08/23/2023	A6D	Chloride, total	mg/L	24.0	44.0	No Exceedance
AW-14	UA	Compliance	11/03/2023	A6DR	Chloride, total	mg/L	28.0	44.0	No Exceedance
AW-14	UA	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.0778 J	0.376	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-14	UA	Compliance	06/13/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-14	UA	Compliance	08/23/2023	A6D	Fluoride, total	mg/L	0.116 J	0.376	No Exceedance
AW-14	UA	Compliance	11/03/2023	A6DR	Fluoride, total	mg/L	0.0524 J	0.376	No Exceedance
AW-14	UA	Compliance	02/28/2023	A6	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-14	UA	Compliance	06/13/2023	A6R	pH (field)	SU	6.9	6.6/7.4	No Exceedance
AW-14	UA	Compliance	08/23/2023	A6D	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-14	UA	Compliance	11/03/2023	A6DR	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-14	UA	Compliance	02/28/2023	A6	Sulfate, total	mg/L	5.70	80.7	No Exceedance
AW-14	UA	Compliance	06/13/2023	A6R	Sulfate, total	mg/L	2.90	80.7	No Exceedance
AW-14	UA	Compliance	08/23/2023	A6D	Sulfate, total	mg/L	1.80 J+	80.7	No Exceedance
AW-14	UA	Compliance	11/03/2023	A6DR	Sulfate, total	mg/L	6.50	80.7	No Exceedance
AW-14	UA	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	1,100	955	Confirmed
AW-14	UA	Compliance	06/13/2023	A6R	Total Dissolved Solids	mg/L	1,000	955	Confirmed
AW-14	UA	Compliance	08/23/2023	A6D	Total Dissolved Solids	mg/L	960	955	Confirmed
AW-14	UA	Compliance	11/03/2023	A6DR	Total Dissolved Solids	mg/L	980	955	Confirmed
AW-15	UA	Compliance	02/27/2023	A6	Boron, total	mg/L	0.370	0.429	No Exceedance
AW-15	UA	Compliance	06/12/2023	A6R	Boron, total	mg/L	0.360	0.429	No Exceedance
AW-15	UA	Compliance	08/23/2023	A6D	Boron, total	mg/L	0.370	0.429	No Exceedance
AW-15	UA	Compliance	11/02/2023	A6DR	Boron, total	mg/L	0.400 J+	0.429	No Exceedance
AW-15	UA	Compliance	02/27/2023	A6	Calcium, total	mg/L	140	177	No Exceedance
AW-15	UA	Compliance	06/12/2023	A6R	Calcium, total	mg/L	140	177	No Exceedance
AW-15	UA	Compliance	08/23/2023	A6D	Calcium, total	mg/L	140	177	No Exceedance
AW-15	UA	Compliance	11/02/2023	A6DR	Calcium, total	mg/L	140	177	No Exceedance
AW-15	UA	Compliance	02/27/2023	A6	Chloride, total	mg/L	32.0	44.0	No Exceedance
AW-15	UA	Compliance	06/12/2023	A6R	Chloride, total	mg/L	35.0	44.0	No Exceedance
AW-15	UA	Compliance	08/23/2023	A6D	Chloride, total	mg/L	34.0	44.0	No Exceedance
AW-15	UA	Compliance	11/02/2023	A6DR	Chloride, total	mg/L	34.0	44.0	No Exceedance
AW-15	UA	Compliance	02/27/2023	A6	Fluoride, total	mg/L	0.067 J	0.376	No Exceedance
AW-15	UA	Compliance	06/12/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-15	UA	Compliance	08/23/2023	A6D	Fluoride, total	mg/L	0.082 J	0.376	No Exceedance
AW-15	UA	Compliance	11/02/2023	A6DR	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-15	UA	Compliance	02/27/2023	A6	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-15	UA	Compliance	06/12/2023	A6R	pH (field)	SU	6.6	6.6/7.4	No Exceedance
AW-15	UA	Compliance	08/23/2023	A6D	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-15	UA	Compliance	11/02/2023	A6DR	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-15	UA	Compliance	02/27/2023	A6	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-15	UA	Compliance	06/12/2023	A6R	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-15	UA	Compliance	08/23/2023	A6D	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-15	UA	Compliance	11/02/2023	A6DR	Sulfate, total	mg/L	0.21 J	80.7	No Exceedance
AW-15	UA	Compliance	02/27/2023	A6	Total Dissolved Solids	mg/L	1,100	955	Confirmed
AW-15	UA	Compliance	06/12/2023	A6R	Total Dissolved Solids	mg/L	1,400	955	Confirmed
AW-15	UA	Compliance	08/23/2023	A6D	Total Dissolved Solids	mg/L	1,100	955	Confirmed
AW-15	UA	Compliance	11/17/2023	A6DR	Total Dissolved Solids	mg/L	1,000 J	955	Confirmed
AW-15S	PMP	Compliance	02/27/2023	A6	Boron, total	mg/L	5.90	0.429	Confirmed
AW-15S	PMP	Compliance	06/12/2023	A6R	Boron, total	mg/L	6.70	0.429	Confirmed
AW-15S	PMP	Compliance	08/23/2023	A6D	Boron, total	mg/L	5.70	0.429	Confirmed

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-15S	PMP	Compliance	11/02/2023	A6DR	Boron, total	mg/L	6.00	0.429	Confirmed
AW-15S	PMP	Compliance	02/27/2023	A6	Calcium, total	mg/L	260	177	Confirmed
AW-15S	PMP	Compliance	06/12/2023	A6R	Calcium, total	mg/L	280	177	Confirmed
AW-15S	PMP	Compliance	08/23/2023	A6D	Calcium, total	mg/L	270	177	Confirmed
AW-15S	PMP	Compliance	11/02/2023	A6DR	Calcium, total	mg/L	270	177	Confirmed
AW-15S	PMP	Compliance	02/27/2023	A6	Chloride, total	mg/L	28.0	44.0	No Exceedance
AW-15S	PMP	Compliance	06/12/2023	A6R	Chloride, total	mg/L	31.0	44.0	No Exceedance
AW-15S	PMP	Compliance	08/23/2023	A6D	Chloride, total	mg/L	31.0	44.0	No Exceedance
AW-15S	PMP	Compliance	11/02/2023	A6DR	Chloride, total	mg/L	30.0	44.0	No Exceedance
AW-15S	PMP	Compliance	02/27/2023	A6	Fluoride, total	mg/L	0.252	0.376	No Exceedance
AW-15S	PMP	Compliance	06/12/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-15S	PMP	Compliance	08/23/2023	A6D	Fluoride, total	mg/L	0.284	0.376	No Exceedance
AW-15S	PMP	Compliance	11/02/2023	A6DR	Fluoride, total	mg/L	0.258	0.376	No Exceedance
AW-15S	PMP	Compliance	02/27/2023	A6	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-15S	PMP	Compliance	06/12/2023	A6R	pH (field)	SU	6.7	6.6/7.4	No Exceedance
AW-15S	PMP	Compliance	08/23/2023	A6D	pH (field)	SU	6.9	6.6/7.4	No Exceedance
AW-15S	PMP	Compliance	11/02/2023	A6DR	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-15S	PMP	Compliance	02/27/2023	A6	Sulfate, total	mg/L	510	80.7	Confirmed
AW-15S	PMP	Compliance	06/12/2023	A6R	Sulfate, total	mg/L	590	80.7	Confirmed
AW-15S	PMP	Compliance	08/23/2023	A6D	Sulfate, total	mg/L	570	80.7	Confirmed
AW-15S	PMP	Compliance	11/02/2023	A6DR	Sulfate, total	mg/L	550	80.7	Confirmed
AW-15S	PMP	Compliance	02/27/2023	A6	Total Dissolved Solids	mg/L	1,300	955	Confirmed
AW-15S	PMP	Compliance	06/12/2023	A6R	Total Dissolved Solids	mg/L	990	955	Confirmed
AW-15S	PMP	Compliance	08/23/2023	A6D	Total Dissolved Solids	mg/L	1,400	955	Confirmed
AW-15S	PMP	Compliance	11/17/2023	A6DR	Total Dissolved Solids	mg/L	1,200	955	Confirmed
AW-16	UA	Compliance	02/28/2023	A6	Boron, total	mg/L	0.490	0.429	Confirmed
AW-16	UA	Compliance	06/12/2023	A6R	Boron, total	mg/L	0.450	0.429	Confirmed
AW-16	UA	Compliance	08/21/2023	A6D	Boron, total	mg/L	0.440	0.429	Exceedance Not Confirmed
AW-16	UA	Compliance	11/02/2023	A6DR	Boron, total	mg/L	0.420 J+	0.429	No Exceedance
AW-16	UA	Compliance	02/28/2023	A6	Calcium, total	mg/L	140	177	No Exceedance
AW-16	UA	Compliance	06/12/2023	A6R	Calcium, total	mg/L	150	177	No Exceedance
AW-16	UA	Compliance	08/21/2023	A6D	Calcium, total	mg/L	140	177	No Exceedance
AW-16	UA	Compliance	11/02/2023	A6DR	Calcium, total	mg/L	150	177	No Exceedance
AW-16	UA	Compliance	02/28/2023	A6	Chloride, total	mg/L	46.0	44.0	Confirmed
AW-16	UA	Compliance	06/12/2023	A6R	Chloride, total	mg/L	50.0	44.0	Confirmed
AW-16	UA	Compliance	08/21/2023	A6D	Chloride, total	mg/L	51.0	44.0	Confirmed
AW-16	UA	Compliance	11/02/2023	A6DR	Chloride, total	mg/L	48.0	44.0	Confirmed
AW-16	UA	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.0535 J	0.376	No Exceedance
AW-16	UA	Compliance	06/12/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-16	UA	Compliance	08/21/2023	A6D	Fluoride, total	mg/L	0.087 J	0.376	No Exceedance
AW-16	UA	Compliance	11/02/2023	A6DR	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-16	UA	Compliance	02/28/2023	A6	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-16	UA	Compliance	06/12/2023	A6R	pH (field)	SU	6.5	6.6/7.4	Exceedance Not Confirmed
AW-16	UA	Compliance	08/21/2023	A6D	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-16	UA	Compliance	11/02/2023	A6DR	pH (field)	SU	6.7	6.6/7.4	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-16	UA	Compliance	02/28/2023	A6	Sulfate, total	mg/L	3.40	80.7	No Exceedance
AW-16	UA	Compliance	06/12/2023	A6R	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-16	UA	Compliance	08/21/2023	A6D	Sulfate, total	mg/L	0.61 J	80.7	No Exceedance
AW-16	UA	Compliance	11/02/2023	A6DR	Sulfate, total	mg/L	0.81 J	80.7	No Exceedance
AW-16	UA	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	1,200	955	Confirmed
AW-16	UA	Compliance	06/12/2023	A6R	Total Dissolved Solids	mg/L	1,500	955	Confirmed
AW-16	UA	Compliance	08/21/2023	A6D	Total Dissolved Solids	mg/L	1,200	955	Confirmed
AW-16	UA	Compliance	11/17/2023	A6DR	Total Dissolved Solids	mg/L	1,100 J	955	Confirmed
AW-17	UA	Compliance	02/28/2023	A6	Boron, total	mg/L	0.420	0.429	No Exceedance
AW-17	UA	Compliance	06/13/2023	A6R	Boron, total	mg/L	0.400	0.429	No Exceedance
AW-17	UA	Compliance	08/21/2023	A6D	Boron, total	mg/L	0.410	0.429	No Exceedance
AW-17	UA	Compliance	11/01/2023	A6DR	Boron, total	mg/L	0.420 J+	0.429	No Exceedance
AW-17	UA	Compliance	02/28/2023	A6	Calcium, total	mg/L	110	177	No Exceedance
AW-17	UA	Compliance	06/13/2023	A6R	Calcium, total	mg/L	110	177	No Exceedance
AW-17	UA	Compliance	08/21/2023	A6D	Calcium, total	mg/L	110	177	No Exceedance
AW-17	UA	Compliance	11/01/2023	A6DR	Calcium, total	mg/L	100	177	No Exceedance
AW-17	UA	Compliance	02/28/2023	A6	Chloride, total	mg/L	47.0	44.0	Confirmed
AW-17	UA	Compliance	06/13/2023	A6R	Chloride, total	mg/L	53.0	44.0	Confirmed
AW-17	UA	Compliance	08/21/2023	A6D	Chloride, total	mg/L	54.0	44.0	Confirmed
AW-17	UA	Compliance	11/01/2023	A6DR	Chloride, total	mg/L	53.0	44.0	Confirmed
AW-17	UA	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.0605 J	0.376	No Exceedance
AW-17	UA	Compliance	06/13/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-17	UA	Compliance	08/21/2023	A6D	Fluoride, total	mg/L	0.074 J	0.376	No Exceedance
AW-17	UA	Compliance	11/01/2023	A6DR	Fluoride, total	mg/L	0.0458 J-	0.376	No Exceedance
AW-17	UA	Compliance	02/28/2023	A6	pH (field)	SU	6.9	6.6/7.4	No Exceedance
AW-17	UA	Compliance	06/13/2023	A6R	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-17	UA	Compliance	08/21/2023	A6D	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-17	UA	Compliance	11/01/2023	A6DR	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-17	UA	Compliance	02/28/2023	A6	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-17	UA	Compliance	06/13/2023	A6R	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-17	UA	Compliance	08/21/2023	A6D	Sulfate, total	mg/L	0.22 J	80.7	No Exceedance
AW-17	UA	Compliance	11/01/2023	A6DR	Sulfate, total	mg/L	0.18 U	80.7	No Exceedance
AW-17	UA	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	1,100	955	Confirmed
AW-17	UA	Compliance	06/13/2023	A6R	Total Dissolved Solids	mg/L	1,100	955	Confirmed
AW-17	UA	Compliance	08/21/2023	A6D	Total Dissolved Solids	mg/L	930	955	No Exceedance
AW-17	UA	Compliance	11/01/2023	A6DR	Total Dissolved Solids	mg/L	1,000	955	Exceedance Not Confirmed
AW-18	UA	Compliance	02/27/2023	A6	Boron, total	mg/L	0.380	0.429	No Exceedance
AW-18	UA	Compliance	06/14/2023	A6R	Boron, total	mg/L	1.30 J+	0.429	Exceedance Not Confirmed
AW-18	UA	Compliance	08/22/2023	A6D	Boron, total	mg/L	1.20	0.429	Exceedance Not Confirmed
AW-18	UA	Compliance	11/01/2023	A6DR	Boron, total	mg/L	0.330 J+	0.429	No Exceedance
AW-18	UA	Compliance	02/27/2023	A6	Calcium, total	mg/L	140	177	No Exceedance
AW-18	UA	Compliance	06/14/2023	A6R	Calcium, total	mg/L	120	177	No Exceedance
AW-18	UA	Compliance	08/22/2023	A6D	Calcium, total	mg/L	130	177	No Exceedance
AW-18	UA	Compliance	11/01/2023	A6DR	Calcium, total	mg/L	120	177	No Exceedance
AW-18	UA	Compliance	02/27/2023	A6	Chloride, total	mg/L	81.0	44.0	Confirmed

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-18	UA	Compliance	06/14/2023	A6R	Chloride, total	mg/L	97.0	44.0	Confirmed
AW-18	UA	Compliance	08/22/2023	A6D	Chloride, total	mg/L	91.0	44.0	Confirmed
AW-18	UA	Compliance	11/01/2023	A6DR	Chloride, total	mg/L	89.0	44.0	Confirmed
AW-18	UA	Compliance	02/27/2023	A6	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-18	UA	Compliance	06/14/2023	A6R	Fluoride, total	mg/L	0.04 U	0.376	No Exceedance
AW-18	UA	Compliance	08/22/2023	A6D	Fluoride, total	mg/L	0.196 J	0.376	No Exceedance
AW-18	UA	Compliance	11/01/2023	A6DR	Fluoride, total	mg/L	0.0915 J	0.376	No Exceedance
AW-18	UA	Compliance	02/27/2023	A6	pH (field)	SU	6.9	6.6/7.4	No Exceedance
AW-18	UA	Compliance	06/14/2023	A6R	pH (field)	SU	6.7	6.6/7.4	No Exceedance
AW-18	UA	Compliance	08/22/2023	A6D	pH (field)	SU	6.6	6.6/7.4	No Exceedance
AW-18	UA	Compliance	11/01/2023	A6DR	pH (field)	SU	6.8	6.6/7.4	No Exceedance
AW-18	UA	Compliance	02/27/2023	A6	Sulfate, total	mg/L	10.0	80.7	No Exceedance
AW-18	UA	Compliance	06/14/2023	A6R	Sulfate, total	mg/L	7.70	80.7	No Exceedance
AW-18	UA	Compliance	08/22/2023	A6D	Sulfate, total	mg/L	6.90	80.7	No Exceedance
AW-18	UA	Compliance	11/01/2023	A6DR	Sulfate, total	mg/L	8.20	80.7	No Exceedance
AW-18	UA	Compliance	02/27/2023	A6	Total Dissolved Solids	mg/L	830	955	No Exceedance
AW-18	UA	Compliance	06/14/2023	A6R	Total Dissolved Solids	mg/L	930 J+	955	No Exceedance
AW-18	UA	Compliance	08/22/2023	A6D	Total Dissolved Solids	mg/L	850	955	No Exceedance
AW-18	UA	Compliance	11/01/2023	A6DR	Total Dissolved Solids	mg/L	800 J	955	No Exceedance
AW-19	UA	Compliance	02/27/2023	A6	Boron, total	mg/L	2.90	0.429	Confirmed
AW-19	UA	Compliance	06/14/2023	A6R	Boron, total	mg/L	2.30	0.429	Confirmed
AW-19	UA	Compliance	08/22/2023	A6D	Boron, total	mg/L	2.90	0.429	Confirmed
AW-19	UA	Compliance	11/01/2023	A6DR	Boron, total	mg/L	3.20	0.429	Confirmed
AW-19	UA	Compliance	02/27/2023	A6	Calcium, total	mg/L	130	177	No Exceedance
AW-19	UA	Compliance	06/14/2023	A6R	Calcium, total	mg/L	120	177	No Exceedance
AW-19	UA	Compliance	08/22/2023	A6D	Calcium, total	mg/L	120	177	No Exceedance
AW-19	UA	Compliance	11/01/2023	A6DR	Calcium, total	mg/L	120	177	No Exceedance
AW-19	UA	Compliance	02/27/2023	A6	Chloride, total	mg/L	69.0	44.0	Confirmed
AW-19	UA	Compliance	06/14/2023	A6R	Chloride, total	mg/L	82.0	44.0	Confirmed
AW-19	UA	Compliance	08/22/2023	A6D	Chloride, total	mg/L	79.0	44.0	Confirmed
AW-19	UA	Compliance	11/01/2023	A6DR	Chloride, total	mg/L	77.0	44.0	Confirmed
AW-19	UA	Compliance	02/27/2023	A6	Fluoride, total	mg/L	0.336	0.376	No Exceedance
AW-19	UA	Compliance	06/14/2023	A6R	Fluoride, total	mg/L	0.266	0.376	No Exceedance
AW-19	UA	Compliance	08/22/2023	A6D	Fluoride, total	mg/L	0.313	0.376	No Exceedance
AW-19	UA	Compliance	11/01/2023	A6DR	Fluoride, total	mg/L	0.212 J	0.376	No Exceedance
AW-19	UA	Compliance	02/27/2023	A6	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-19	UA	Compliance	06/14/2023	A6R	pH (field)	SU	6.9	6.6/7.4	No Exceedance
AW-19	UA	Compliance	08/22/2023	A6D	pH (field)	SU	6.5	6.6/7.4	Exceedance Not Confirmed
AW-19	UA	Compliance	11/01/2023	A6DR	pH (field)	SU	7.0	6.6/7.4	No Exceedance
AW-19	UA	Compliance	02/27/2023	A6	Sulfate, total	mg/L	46.0	80.7	No Exceedance
AW-19	UA	Compliance	06/14/2023	A6R	Sulfate, total	mg/L	52.0	80.7	No Exceedance
AW-19	UA	Compliance	08/22/2023	A6D	Sulfate, total	mg/L	55.0	80.7	No Exceedance
AW-19	UA	Compliance	11/01/2023	A6DR	Sulfate, total	mg/L	57.0	80.7	No Exceedance
AW-19	UA	Compliance	02/27/2023	A6	Total Dissolved Solids	mg/L	600	955	No Exceedance
AW-19	UA	Compliance	06/14/2023	A6R	Total Dissolved Solids	mg/L	620 J+	955	No Exceedance
AW-19	UA	Compliance	08/22/2023	A6D	Total Dissolved Solids	mg/L	680	955	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
AW-19	UA	Compliance	11/01/2023	A6DR	Total Dissolved Solids	mg/L	760	955	No Exceedance
AW-21	UA	Compliance	02/28/2023	A6	Boron, total	mg/L	13.0	0.429	Confirmed
AW-21	UA	Compliance	06/14/2023	A6R	Boron, total	mg/L	8.70	0.429	Confirmed
AW-21	UA	Compliance	08/22/2023	A6D	Boron, total	mg/L	12.0	0.429	Confirmed
AW-21	UA	Compliance	11/02/2023	A6DR	Boron, total	mg/L	12.0	0.429	Confirmed
AW-21	UA	Compliance	02/28/2023	A6	Calcium, total	mg/L	110	177	No Exceedance
AW-21	UA	Compliance	06/14/2023	A6R	Calcium, total	mg/L	110	177	No Exceedance
AW-21	UA	Compliance	08/22/2023	A6D	Calcium, total	mg/L	120	177	No Exceedance
AW-21	UA	Compliance	11/02/2023	A6DR	Calcium, total	mg/L	120	177	No Exceedance
AW-21	UA	Compliance	02/28/2023	A6	Chloride, total	mg/L	80.0	44.0	Confirmed
AW-21	UA	Compliance	06/14/2023	A6R	Chloride, total	mg/L	97.0	44.0	Confirmed
AW-21	UA	Compliance	08/22/2023	A6D	Chloride, total	mg/L	83.0	44.0	Confirmed
AW-21	UA	Compliance	11/02/2023	A6DR	Chloride, total	mg/L	97.0	44.0	Confirmed
AW-21	UA	Compliance	02/28/2023	A6	Fluoride, total	mg/L	0.360	0.376	No Exceedance
AW-21	UA	Compliance	06/14/2023	A6R	Fluoride, total	mg/L	0.312	0.376	No Exceedance
AW-21	UA	Compliance	08/22/2023	A6D	Fluoride, total	mg/L	0.303	0.376	No Exceedance
AW-21	UA	Compliance	11/02/2023	A6DR	Fluoride, total	mg/L	0.399	0.376	Exceedance Not Confirmed
AW-21	UA	Compliance	02/28/2023	A6	pH (field)	SU	8.0	6.6/7.4	Exceedance Not Confirmed
AW-21	UA	Compliance	06/14/2023	A6R	pH (field)	SU	7.1	6.6/7.4	No Exceedance
AW-21	UA	Compliance	08/22/2023	A6D	pH (field)	SU	6.5	6.6/7.4	Exceedance Not Confirmed
AW-21	UA	Compliance	11/02/2023	A6DR	pH (field)	SU	7.2	6.6/7.4	No Exceedance
AW-21	UA	Compliance	02/28/2023	A6	Sulfate, total	mg/L	240	80.7	Confirmed
AW-21	UA	Compliance	06/14/2023	A6R	Sulfate, total	mg/L	240	80.7	Confirmed
AW-21	UA	Compliance	08/22/2023	A6D	Sulfate, total	mg/L	280	80.7	Confirmed
AW-21	UA	Compliance	11/02/2023	A6DR	Sulfate, total	mg/L	260	80.7	Confirmed
AW-21	UA	Compliance	02/28/2023	A6	Total Dissolved Solids	mg/L	680	955	No Exceedance
AW-21	UA	Compliance	06/14/2023	A6R	Total Dissolved Solids	mg/L	680 J+	955	No Exceedance
AW-21	UA	Compliance	08/22/2023	A6D	Total Dissolved Solids	mg/L	820	955	No Exceedance
AW-21	UA	Compliance	11/17/2023	A6DR	Total Dissolved Solids	mg/L	690	955	No Exceedance

Notes:

HSU = hydrostratigraphic unit:

PMP = Potential Migration Pathway

UA = Uppermost Aquifer

ID = identification

mg/L = milligrams per liter

NA = not applicable

R = resample

Statistically Significant Increase (SSI) Type:

No Exceedance: No exceedance of the background.

Exceedance Not Confirmed: An exceedance was determined in the parent event, a resample was collected, and the resample did not confirm the exceedance.

Confirmed: An exceedance was determined with comparison to a resample. If a determined exceedance is confirmed by resample, both the sample and resample are noted as confirmed.

SU = Standard Units

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity, but the result may be biased low.

J+ = The result is an estimated quantity, but the result may be biased high.

U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

Generated 2024-01-22 15:13:55.761476 by banoffra

TABLE 3
ANALYTICAL RESULTS - APPENDIX IV PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	Well Type	Date	Event ID	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Fluoride, total (mg/L)	Lead, total (mg/L)	Lithium, total (mg/L)	Mercury, total (mg/L)	Molybdenum, total (mg/L)	Radium 226 + 228 (pCi/L)	Selenium, total (mg/L)	Thallium, total (mg/L)
AP05S	B	02/28/2023	A6	0.00043 U	0.00730	0.940	0.00063 J	0.00074 U	0.0250	0.0120	0.088 J	0.0140	0.0390	0.00014 U	0.00210	3.12	0.00074 U	0.00038 U
AP05S	B	06/14/2023	A6R	0.00043 U	0.00360	1.10	0.00059 U	0.00074 U	0.00860	0.00520	0.04 U	0.00510	0.0350	0.00014 U	0.00079 J	4.53	0.00074 U	0.00038 U
AP05S	B	08/23/2023	A6D	0.00043 U	0.00100	0.830	0.00059 U	0.00074 U	0.0028 U	0.0011 J	0.095 J	0.00035 J	0.0270	0.00014 U	0.00074 U	1.40	0.00074 U	0.00038 U
AP05S	B	11/06/2023	A6DR	0.00043 U	0.00270	1.00	0.00059 U	0.00074 U	0.00670	0.00420	0.04 U	0.00380 J+	0.0320	0.00018 J	0.00082 J	3.94	0.00047 J	0.00038 U
AW-08	B	02/28/2023	A6	0.00043 U	0.0110	0.200	0.00059 U	0.00074 U	0.0028 U	0.00048 U	0.223 J	0.00022 U	0.0097 J	0.00014 U	0.00180	0.261	0.00074 U	0.00038 U
AW-08	B	06/14/2023	A6R	0.00043 U	0.0100	0.190	0.00059 U	0.00074 U	0.0028 U	0.00048 U	0.0669 J	0.00022 U	0.0099 J	0.00014 U	0.00160	0.815	0.00074 U	0.00038 U
AW-08	B	08/28/2023	A6D	0.00043 U	0.00980	0.190	0.00059 U	0.00074 U	0.0028 U	0.00048 U	0.195 J	0.00022 U	0.013 J	0.00014 U	0.00180 J+	0.434	0.00074 U	0.00038 U
AW-08	B	11/06/2023	A6DR	0.00087 U	0.0880	5.80	0.0240	0.0150	0.680	0.400	0.175 J	0.420	0.660	0.00110	0.0140	29.1	0.0150	0.00410
AP07S	C	02/28/2023	A6	0.00043 U	0.00210	0.0870	0.00059 U	0.00350	0.0250	0.00480	0.248 J	0.00340	0.0067 J	0.00014 U	0.00350	0.782	0.00074 U	0.00038 U
AP07S	C	06/15/2023	A6R	0.00043 U	0.00110	0.110	0.00059 U	0.00074 U	0.0130	0.00430	0.151 J	0.00320	0.0088 J	0.00014 U	0.00120	1.20	0.00074 U	0.00038 U
AP07S	C	08/28/2023	A6D	0.00043 U	0.00069 U	0.0730	0.00059 U	0.00130	0.0028 U	0.00290	0.215 J	0.0009 J	0.0061 J	0.00014 U	0.00110 J+	1.26	0.00074 U	0.00038 U
AP07S	C	11/03/2023	A6DR	0.00043 U	0.00069 U	0.0480	0.00059 U	0.00074 U	0.0028 U	0.00260	0.229 J	0.0002 UJ	0.005 U	0.00014 U	0.00100	1.02	0.00013 U	0.00038 U
AW-01	C	01/10/2023	ADD	0.00064 J	0.00710	0.120	0.00059 U	0.00074 U	0.0028 U	0.00370	0.277	0.0007 J	0.0059 J	0.00014 U	0.00510	0	0.00074 U	0.00038 U
AW-01	C	02/28/2023	A6	0.00043 U	0.0200	0.170	0.00059 U	0.00074 U	0.0190	0.00700	0.177 J	0.00920	0.018 J	0.00014 U	0.00220	2.77	0.00110	0.00038 U
AW-01	C	06/14/2023	A6R	0.00043 U	0.00630	0.140	0.00059 U	0.00074 U	0.0028 U	0.00340	0.04 U	0.00022 U	0.005 U	0.00014 U	0.00340	0.773	0.00074 U	0.00038 U
AW-01	C	08/22/2023	A6D	0.00043 U	0.00510	0.130	0.00059 U	0.00074 U	0.0028 U	0.00380	0.280	0.00022 U	0.006 J	0.00014 J	0.00410	1.13	0.00074 U	0.00038 U
AW-01	C	11/06/2023	A6DR	0.00043 U	0.0120	0.140	0.00059 U	0.00074 U	0.00410	0.00600	0.14 J	0.00220 J+	0.007 J	0.00014 U	0.00340	4.72	0.00032 J	0.00038 U
AW-05	C	02/28/2023	A6	0.00043 U	0.00680	0.210	0.00059 U	0.00074 U	0.0200	0.0110	0.186 J	0.00910	0.0250	0.00014 U	0.00260	1.44	0.00120	0.00038 U
AW-05	C	06/15/2023	A6R	0.00043 U	0.00450	0.160	0.00059 U	0.00074 U	0.0100	0.00640	0.173 J	0.00440	0.017 J	0.00014 U	0.00230	3.09	0.00074 U	0.00038 U
AW-05	C	08/28/2023	A6D	0.00043 U	0.00330	0.130	0.00059 U	0.00074 U	0.00730	0.00530	0.166 J	0.00370	0.017 J	0.000440	0.00250 J+	0.0965	0.00074 U	0.00038 U
AW-05	C	11/06/2023	A6DR	0.00043 U	0.00320	0.110	0.00059 U	0.00074 U	0.00420	0.00330	0.139 J	0.00180 J+	0.013 J	0.00014 U	0.00220	0.465	0.00028 J	0.00038 U
AW-06	C	02/28/2023	A6	0.00043 U	0.00640	0.190	0.00059 U	0.00074 U	0.0028 U	0.00096 J	0.327	0.00058 J	0.012 J	0.00014 U	0.00530	0.489	0.00074 U	0.00038 U
AW-06	C	06/14/2023	A6R	0.00071 J	0.00300	0.160	0.00059 U	0.00074 U	0.0028 U	0.0006 J	0.319	0.00049 J	0.012 J	0.00014 U	0.00490	0.910	0.00074 U	0.00038 U
AW-06	C	08/28/2023	A6D	0.00043 U	0.00520	0.190	0.00059 U	0.00074 U	0.0028 U	0.00098 J	0.284	0.00074 J	0.013 J	0.00015 J	0.00600 J+	0.107	0.00074 U	0.00038 U
AW-06	C	11/06/2023	A6DR	0.00043 U	0.00440	0.180	0.00059 U	0.00074 U	0.0032 J	0.0016 J	0.282	0.00160 J+	0.014 J	0.00014 U	0.00470	0.785	0.00025 J	0.00038 U
AW-09	C	02/28/2023	A6	0.00043 U	0.0120	0.200	0.00059 U	0.00074 U	0.0028 U	0.00048 U	0.04 U	0.00022 U	0.013 J	0.00014 U	0.00190	1.12	0.00074 U	0.00038 U
AW-09	C	06/12/2023	A6R	0.00043 U	0.0100	0.290	0.00059 U	0.00074 U	0.0028 U	0.00220	0.04 U	0.00031 J	0.015 J	0.00014 U	0.0210	0.230	0.00074 U	0.00038 U

TABLE 3
ANALYTICAL RESULTS - APPENDIX IV PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	Well Type	Date	Event ID	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Fluoride, total (mg/L)	Lead, total (mg/L)	Lithium, total (mg/L)	Mercury, total (mg/L)	Molybdenum, total (mg/L)	Radium 226 + 228 (pCi/L)	Selenium, total (mg/L)	Thallium, total (mg/L)
AW-09	C	08/29/2023	A6D	0.00043 U	0.0170	0.390	0.00059 U	0.00074 U	0.0028 U	0.00300	0.145 J	0.00130	0.019 J	0.00014 U	0.0210	1.52	0.00074 U	0.00038 U
AW-09	C	11/06/2023	A6DR	0.00043 U	0.0240	0.430	0.00059 U	0.00074 U	0.0028 U	0.00310	0.128 J	0.00120 J+	0.017 J	0.00014 U	0.0210	1.35	0.00026 J	0.00038 U
AW-10	C	02/28/2023	A6	0.00043 U	0.0160	1.30	0.00059 U	0.00074 U	0.00950	0.00680	0.0973 J	0.00620	0.0430	0.00014 U	0.00120	1.57	0.00074 U	0.00038 U
AW-10	C	06/13/2023	A6R	0.00043 U	0.00990	0.990	0.00059 U	0.00074 U	0.0028 U	0.00300	0.04 U	0.00140	0.0370	0.00014 U	0.00120 J	2.95	0.00074 U	0.00038 U
AW-10	C	08/28/2023	A6D	0.00043 U	0.0130	1.10	0.00059 U	0.00074 U	0.0100	0.00770	0.182 J	0.00800	0.0480	0.00014 U	0.00110 J+	4.03	0.00074 U	0.00038 U
AW-10	C	11/06/2023	A6DR	0.00051 J	0.0120	1.00	0.00130	0.00074 U	0.0290	0.0180	0.04 U	0.0180	0.0580	0.00014 U	0.00190	3.58	0.00110	0.00068 J
AW-11	C	02/28/2023	A6	0.00043 U	0.0130	1.10	0.00059 U	0.00074 U	0.0170	0.0100	0.0647 J	0.0100	0.0310	0.00014 U	0.00320	2.25	0.00074 U	0.00038 U
AW-11	C	06/13/2023	A6R	0.00043 U	0.00990	0.940	0.00059 U	0.00074 U	0.0028 U	0.0015 J	0.04 U	0.00041 J	0.018 J	0.00014 U	0.00140	2.29	0.00074 U	0.00038 U
AW-11	C	08/28/2023	A6D	0.00043 U	0.0110	0.870	0.00059 U	0.00074 U	0.0028 U	0.0019 J	0.153 J	0.00086 J	0.0210	0.00014 U	0.00170 J+	2.45	0.00074 U	0.00038 U
AW-11	C	11/03/2023	A6DR	0.00043 U	0.0110	0.840	0.00059 U	0.00074 U	0.0028 U	0.0019 J	0.0662 J	0.0002 UJ	0.018 J	0.00014 U	0.00200	1.94	0.00027 J	0.00038 U
AW-14	C	02/28/2023	A6	0.002 J	0.0150	0.720	0.00059 U	0.00074 U	0.0028 U	0.00480	0.0778 J	0.00170	0.017 J	0.00014 U	0.0190	1.30	0.00086 J	0.00038 U
AW-14	C	06/13/2023	A6R	0.00046 J	0.00780	0.800	0.00059 U	0.00074 U	0.0028 U	0.00200	0.04 U	0.00022 U	0.014 J	0.00014 U	0.00390	3.46	0.00074 U	0.00038 U
AW-14	C	08/23/2023	A6D	0.00043 U	0.00520	0.840	0.00059 U	0.00074 U	0.0028 U	0.0019 J	0.116 J	0.00022 U	0.016 J	0.00014 U	0.00140	3.53	0.00074 U	0.00038 U
AW-14	C	11/03/2023	A6DR	0.00054 J	0.00410	0.830	0.00059 U	0.00074 U	0.0028 U	0.0018 J	0.0524 J	0.0002 UJ	0.016 J	0.00014 U	0.00180	1.87	0.0005 J	0.00038 U
AW-15	C	02/27/2023	A6	0.00043 U	0.00350	1.80	0.00059 U	0.00074 U	0.0028 U	0.0018 J	0.067 J	0.00027 J	0.0270	0.000210	0.00074 U	7.65	0.00074 U	0.00038 U
AW-15	C	06/12/2023	A6R	0.00043 U	0.00200	1.90	0.00059 U	0.00074 U	0.0028 U	0.0016 J	0.04 U	0.00022 U	0.0300	0.00014 U	0.00074 U	3.80	0.00074 U	0.00038 U
AW-15	C	08/23/2023	A6D	0.00043 U	0.00130	1.80	0.00059 U	0.00074 U	0.0028 U	0.0016 J	0.082 J	0.00022 U	0.0280	0.00014 U	0.00074 U	6.12	0.00074 U	0.00038 U
AW-15	C	11/02/2023	A6DR	0.00043 U	0.00180	1.90	0.00059 U	0.00074 U	0.0028 U	0.0017 J	0.04 U	0.00022 U	0.0290	0.00015 J	0.00074 U	5.52	0.00036 J	0.00038 U
AW-15S	C	02/27/2023	A6	0.00043 U	0.00180	0.0810	0.00059 U	0.00074 U	0.0028 U	0.00048 U	0.252	0.00022 U	0.013 J	0.00015 J	0.00300	1.99	0.00074 J	0.00038 U
AW-15S	C	06/12/2023	A6R	0.00043 U	0.00069 U	0.0750	0.00059 U	0.00074 U	0.0028 U	0.00049 J	0.04 U	0.00022 U	0.013 J	0.00014 U	0.00300	0.203	0.00180	0.00038 U
AW-15S	C	08/23/2023	A6D	0.00043 U	0.00069 U	0.0870	0.00059 U	0.00074 U	0.0028 U	0.00059 J	0.284	0.00022 U	0.014 J	0.00014 U	0.00270	1.02	0.00074 U	0.00038 U
AW-15S	C	11/02/2023	A6DR	0.00043 U	0.00069 U	0.0840	0.00059 U	0.00074 U	0.0028 U	0.00065 J	0.258	0.00022 U	0.014 J	0.00014 U	0.00350	1.70	0.00100	0.00038 U
AW-16	C	02/28/2023	A6	0.00043 U	0.00220	1.30	0.00059 U	0.00074 U	0.0028 U	0.0015 J	0.0535 J	0.00022 U	0.0370	0.00014 U	0.00074 U	3.13	0.00074 U	0.00038 U
AW-16	C	06/12/2023	A6R	0.00043 U	0.00170	1.30	0.00059 U	0.00074 U	0.0028 U	0.0016 J	0.04 U	0.00022 U	0.0310	0.00014 U	0.00074 U	3.74	0.00074 U	0.00038 U
AW-16	C	08/21/2023	A6D	0.00043 U	0.00069 U	1.10	0.00059 U	0.00074 U	0.0028 U	0.0015 J	0.087 J	0.00022 U	0.0320	0.000390 J	0.00074 U	3.95	0.00074 U	0.00038 U
AW-16	C	11/02/2023	A6DR	0.00043 U	0.00120	1.10	0.00059 U	0.00074 U	0.0028 U	0.0016 J	0.04 U	0.00022 U	0.0290	0.00018 J	0.00074 U	3.93	0.00024 J	0.00038 U
AW-17	C	02/28/2023	A6	0.00043 U	0.00610	1.20	0.00059 U	0.00074 U	0.00400	0.00340	0.0605 J	0.00180	0.0340	0.00014 U	0.00078 J	3.46	0.00074 U	0.00038 U

TABLE 3
ANALYTICAL RESULTS - APPENDIX IV PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	Well Type	Date	Event ID	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Fluoride, total (mg/L)	Lead, total (mg/L)	Lithium, total (mg/L)	Mercury, total (mg/L)	Molybdenum, total (mg/L)	Radium 226 + 228 (pCi/L)	Selenium, total (mg/L)	Thallium, total (mg/L)
AW-17	C	06/13/2023	A6R	0.00043 U	0.00450	1.10	0.00059 U	0.00074 U	0.0028 U	0.00250	0.04 U	0.00099 J	0.0310	0.00014 U	0.00074 U	2.97	0.00074 U	0.00038 U
AW-17	C	08/21/2023	A6D	0.00043 U	0.00320	1.00	0.00059 U	0.00074 U	0.0028 U	0.00220	0.074 J	0.00077 J	0.0340	0.000410	0.00074 J	2.64	0.00074 U	0.00038 U
AW-17	C	11/01/2023	A6DR	0.00043 U	0.00360	0.970	0.00059 U	0.00074 U	0.0028 U	0.00220	0.0458 J-	0.0002 UJ	0.0330	0.00014 U	0.00074 U	2.75	0.00074 U	0.00038 U
AW-18	C	02/27/2023	A6	0.00049 J	0.00800	1.80	0.00059 U	0.00074 U	0.0620	0.00620	0.04 U	0.00800	0.0350	0.00014 U	0.00510	3.69	0.0008 J	0.00038 U
AW-18	C	06/14/2023	A6R	0.00043 U	0.00330	1.30	0.00059 U	0.00074 U	0.0037 J	0.0013 J	0.04 U	0.00110	0.0220	0.00014 U	0.00260	2.92	0.00074 U	0.00038 U
AW-18	C	08/22/2023	A6D	0.00043 U	0.00260	1.30	0.00059 U	0.00074 U	0.0028 U	0.00087 J	0.196 J	0.00039 J	0.0250	0.00014 U	0.00320	6.06	0.00074 U	0.00038 U
AW-18	C	11/01/2023	A6DR	0.00043 U	0.00420	1.50	0.00059 U	0.00074 U	0.003 J	0.0014 J	0.0915 J	0.00130 J+	0.0270	0.00014 U	0.00150	4.06	0.00074 U	0.00038 U
AW-19	C	02/27/2023	A6	0.00043 U	0.0220	0.370	0.00059 U	0.00074 U	0.0310	0.00480	0.336	0.00540	0.015 J	0.00014 U	0.00550	1.59	0.00074 U	0.00038 U
AW-19	C	06/14/2023	A6R	0.00043 U	0.0150	0.200	0.00059 U	0.00074 U	0.0028 U	0.0017 J	0.266	0.00170 J	0.011 J	0.00014 U	0.00390	0.471	0.00074 U	0.00038 U
AW-19	C	08/22/2023	A6D	0.00043 U	0.0120	0.200	0.00059 U	0.00074 U	0.0028 U	0.0011 J	0.313	0.00088 J	0.012 J	0.00014 U	0.00360	1.75	0.00074 U	0.00038 U
AW-19	C	11/01/2023	A6DR	0.00043 U	0.0100	0.190	0.00059 U	0.00074 U	0.0028 U	0.0011 J	0.212 J	0.0002 UJ	0.011 J	0.00014 U	0.00410	0.982	0.00074 U	0.00038 U
AW-21	C	02/28/2023	A6	0.00079 J	0.00270	0.0580	0.00059 U	0.00074 U	0.0033 J	0.00078 J	0.360	0.00022 U	0.005 U	0.00014 U	0.0290	0.642	0.00170	0.00038 U
AW-21	C	06/14/2023	A6R	0.00057 J	0.00180	0.0590	0.00059 U	0.00074 U	0.0028 U	0.00063 J	0.312	0.00022 U	0.005 U	0.00014 U	0.0170	0.326	0.00074 U	0.00038 U
AW-21	C	08/22/2023	A6D	0.0012 J	0.00069 U	0.0580	0.00059 U	0.00074 U	0.0028 U	0.00056 J	0.303	0.00022 U	0.0064 J	0.00014 U	0.0290	0.936	0.00380	0.00038 U
AW-21	C	11/02/2023	A6DR	0.0006 J	0.00097 J	0.0510	0.00059 U	0.00074 U	0.0028 U	0.00057 J	0.399	0.00022 U	0.005 U	0.00014 U	0.0280	1.26	0.00300	0.00038 U

Notes:

ID = identification

mg/L = milligrams per liter

pCi/L = picoCuries per liter

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity, but the result may be biased low.

J+ = The result is an estimated quantity, but the result may be biased high.

U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Well Type:

B = Background

C = Compliance

Generated 2024-01-14 02:25:30.880633 by banoffra

TABLE 4
STATISTICAL BACKGROUND VALUES

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Parameter	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Background Value (LPL/UPL)
Boron (mg/L)	11/09/2015 - 08/23/2017	16	0	Parametric UPL	0.429
Calcium (mg/L)	11/09/2015 - 08/23/2017	16	0	Parametric UPL	177
Chloride (mg/L)	11/09/2015 - 08/23/2017	16	0	Non-parametric UPL	44.0
Fluoride (mg/L)	11/09/2015 - 08/23/2017	16	69	Non-parametric UPL	0.376
pH (field) (SU)	11/09/2015 - 08/23/2017	16	0	Parametric LPL/UPL	6.6/7.4
Sulfate (mg/L)	11/09/2015 - 08/23/2017	16	0	Parametric UPL	80.7
Total Dissolved Solids (mg/L)	11/09/2015 - 08/23/2017	16	0	Parametric UPL	955

Notes:

LPL = lower prediction limit (applicable for pH only)

mg/L = milligrams per liter

SU = standard units

UPL = upper prediction limit

Generated 2024-01-14 01:42:19.292462 by banoffra

TABLE 5
GROUNDWATER PROTECTION STANDARDS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT

ASH POND

BARTONVILLE, IL

Parameter	Background					MCL/HBL	Groundwater Protection Standard*	Groundwater Protection Standard Source
	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Value			
Antimony (mg/L)	11/09/2015 - 08/23/2017	16	94	Non-parametric UTL	0.00410	0.006	0.006	MCL/HBL
Arsenic (mg/L)	11/09/2015 - 08/23/2017	16	0	Parametric UTL	0.0187	0.010	0.0187	Background
Barium (mg/L)	11/09/2015 - 08/23/2017	16	0	Non-parametric UTL	0.790	2.0	2.0	MCL/HBL
Beryllium (mg/L)	11/09/2015 - 08/23/2017	16	94	Non-parametric UTL	0.0140	0.004	0.0140	Background
Cadmium (mg/L)	11/09/2015 - 08/23/2017	16	100	All ND - Last Reporting Limit	0.001	0.005	0.005	MCL/HBL
Chromium (mg/L)	11/09/2015 - 08/23/2017	16	100	All ND - Last Reporting Limit	0.004	0.1	0.1	MCL/HBL
Cobalt (mg/L)	11/09/2015 - 08/23/2017	16	56	Non-parametric UTL	0.00530	0.006	0.006	MCL/HBL
Fluoride (mg/L)	11/09/2015 - 08/23/2017	16	69	Non-parametric UTL	0.376	4.0	4.0	MCL/HBL
Lead (mg/L)	11/09/2015 - 08/23/2017	16	94	Non-parametric UTL	0.00100	0.015	0.015	MCL/HBL
Lithium (mg/L)	11/09/2015 - 08/23/2017	16	0	Parametric UTL	0.0541	0.04	0.0541	Background
Mercury (mg/L)	11/09/2015 - 08/23/2017	16	100	All ND - Last Reporting Limit	0.0002	0.002	0.002	MCL/HBL
Molybdenum (mg/L)	11/09/2015 - 08/23/2017	16	0	Parametric UTL	0.0225	0.1	0.1	MCL/HBL
Radium 226 + Radium 228 (pCi/L)	11/09/2015 - 08/23/2017	16	0	Parametric UTL	2.93	5	5	MCL/HBL
Selenium (mg/L)	11/09/2015 - 08/23/2017	16	94	Non-parametric UTL	0.00120	0.05	0.05	MCL/HBL
Thallium (mg/L)	11/09/2015 - 08/23/2017	16	100	All ND - Last Reporting Limit	0.001	0.002	0.002	MCL/HBL

Notes:

* Groundwater Protection Standard is the higher of the MCL/HBL or background.

MCL/HBL = maximum contaminant level/health-based level

mg/L = milligrams per liter

ND = non-detect

pCi/L = picoCuries per liter

UTL = upper tolerance limit

Generated 2024-01-14 02:25:41.069788 by bandoffra

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AP07S	PMP	A6	Antimony, total	mg/L	02/10/2021 - 02/28/2023	9	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Antimony, total	mg/L	02/10/2021 - 06/15/2023	10	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Antimony, total	mg/L	02/10/2021 - 08/28/2023	11	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Antimony, total	mg/L	02/10/2021 - 11/03/2023	12	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AP07S	PMP	A6	Arsenic, total	mg/L	02/10/2021 - 02/28/2023	9	89	CI around median	0.001	0.0187	Background	No Exceedance
AP07S	PMP	A6R	Arsenic, total	mg/L	02/10/2021 - 06/15/2023	10	80	CI around median	0.001	0.0187	Background	No Exceedance
AP07S	PMP	A6D	Arsenic, total	mg/L	02/10/2021 - 08/28/2023	11	82	CI around median	0.001	0.0187	Background	No Exceedance
AP07S	PMP	A6DR	Arsenic, total	mg/L	02/10/2021 - 11/03/2023	12	83	CI around median	0.001	0.0187	Background	No Exceedance
AP07S	PMP	A6	Barium, total	mg/L	02/10/2021 - 02/28/2023	9	0	CI around mean	0.0747	2.0	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Barium, total	mg/L	02/10/2021 - 06/15/2023	10	0	CI around mean	0.0791	2.0	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Barium, total	mg/L	02/10/2021 - 08/28/2023	11	0	CI around mean	0.0778	2.0	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Barium, total	mg/L	02/10/2021 - 11/03/2023	12	0	CI around mean	0.0726	2.0	MCL/HBL	No Exceedance
AP07S	PMP	A6	Beryllium, total	mg/L	02/10/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AP07S	PMP	A6R	Beryllium, total	mg/L	02/10/2021 - 06/15/2023	10	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AP07S	PMP	A6D	Beryllium, total	mg/L	02/10/2021 - 08/28/2023	11	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AP07S	PMP	A6DR	Beryllium, total	mg/L	02/10/2021 - 11/03/2023	12	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AP07S	PMP	A6	Cadmium, total	mg/L	02/10/2021 - 02/28/2023	9	89	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Cadmium, total	mg/L	02/10/2021 - 06/15/2023	10	90	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Cadmium, total	mg/L	02/10/2021 - 08/28/2023	11	82	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Cadmium, total	mg/L	02/10/2021 - 11/03/2023	12	83	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AP07S	PMP	A6	Chromium, total	mg/L	02/10/2021 - 02/28/2023	9	67	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Chromium, total	mg/L	02/10/2021 - 06/15/2023	10	60	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Chromium, total	mg/L	02/10/2021 - 08/28/2023	11	64	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Chromium, total	mg/L	02/10/2021 - 11/03/2023	12	67	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AP07S	PMP	A6	Cobalt, total	mg/L	02/10/2021 - 02/28/2023	9	0	CI around mean	0.0021	0.006	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Cobalt, total	mg/L	02/10/2021 - 06/15/2023	10	0	CI around mean	0.00228	0.006	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Cobalt, total	mg/L	02/10/2021 - 08/28/2023	11	0	CI around mean	0.00235	0.006	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AP07S	PMP	A6DR	Cobalt, total	mg/L	02/10/2021 - 11/03/2023	12	0	CI around mean	0.00238	0.006	MCL/HBL	No Exceedance
AP07S	PMP	A6	Fluoride, total	mg/L	02/10/2021 - 02/28/2023	9	67	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Fluoride, total	mg/L	02/10/2021 - 06/15/2023	10	70	CB around T-S line	-2.23	4.0	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Fluoride, total	mg/L	02/10/2021 - 08/28/2023	11	73	CB around T-S line	-1.69	4.0	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Fluoride, total	mg/L	02/10/2021 - 11/03/2023	12	75	CB around T-S line	-1.21	4.0	MCL/HBL	No Exceedance
AP07S	PMP	A6	Lead, total	mg/L	02/10/2021 - 02/28/2023	9	56	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Lead, total	mg/L	02/10/2021 - 06/15/2023	10	50	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Lead, total	mg/L	02/10/2021 - 08/28/2023	11	55	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Lead, total	mg/L	02/10/2021 - 11/03/2023	12	58	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AP07S	PMP	A6	Lithium, total	mg/L	02/10/2021 - 02/28/2023	9	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AP07S	PMP	A6R	Lithium, total	mg/L	02/10/2021 - 06/15/2023	10	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AP07S	PMP	A6D	Lithium, total	mg/L	02/10/2021 - 08/28/2023	11	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AP07S	PMP	A6DR	Lithium, total	mg/L	02/10/2021 - 11/03/2023	12	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AP07S	PMP	A6	Mercury, total	mg/L	02/10/2021 - 02/28/2023	9	89	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Mercury, total	mg/L	02/10/2021 - 06/15/2023	10	90	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Mercury, total	mg/L	02/10/2021 - 08/28/2023	11	91	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Mercury, total	mg/L	02/10/2021 - 11/03/2023	12	92	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AP07S	PMP	A6	Molybdenum, total	mg/L	02/10/2021 - 02/28/2023	9	56	CI around median	0.001	0.1	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Molybdenum, total	mg/L	02/10/2021 - 06/15/2023	10	50	CI around median	0.001	0.1	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Molybdenum, total	mg/L	02/10/2021 - 08/28/2023	11	45	CI around median	0.001	0.1	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Molybdenum, total	mg/L	02/10/2021 - 11/03/2023	12	42	CI around median	0.001	0.1	MCL/HBL	No Exceedance
AP07S	PMP	A6	Radium 226 + Radium 228, total	pCi/L	02/10/2021 - 02/28/2023	9	0	CI around mean	0.352	5	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Radium 226 + Radium 228, total	pCi/L	02/10/2021 - 06/15/2023	10	0	CI around mean	0.452	5	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Radium 226 + Radium 228, total	pCi/L	02/10/2021 - 08/28/2023	11	0	CI around mean	0.535	5	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Radium 226 + Radium 228, total	pCi/L	02/10/2021 - 11/03/2023	12	0	CI around mean	0.585	5	MCL/HBL	No Exceedance
AP07S	PMP	A6	Selenium, total	mg/L	02/10/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Selenium, total	mg/L	02/10/2021 - 06/15/2023	10	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT
ASH POND
BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AP07S	PMP	A6D	Selenium, total	mg/L	02/10/2021 - 08/28/2023	11	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Selenium, total	mg/L	02/10/2021 - 11/03/2023	12	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AP07S	PMP	A6	Thallium, total	mg/L	02/10/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AP07S	PMP	A6R	Thallium, total	mg/L	02/10/2021 - 06/15/2023	10	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AP07S	PMP	A6D	Thallium, total	mg/L	02/10/2021 - 08/28/2023	11	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AP07S	PMP	A6DR	Thallium, total	mg/L	02/10/2021 - 11/03/2023	12	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-01	PMP	A6	Antimony, total	mg/L	11/18/2022 - 02/28/2023	4	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Antimony, total	mg/L	11/18/2022 - 06/14/2023	5	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Antimony, total	mg/L	11/18/2022 - 08/22/2023	6	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Antimony, total	mg/L	11/18/2022 - 11/06/2023	7	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-01	PMP	A6	Arsenic, total	mg/L	11/18/2022 - 02/28/2023	4	0	CI around mean	-0.00812	0.0187	Background	No Exceedance
AW-01	PMP	A6R	Arsenic, total	mg/L	11/18/2022 - 06/14/2023	5	0	CI around mean	-0.00267	0.0187	Background	No Exceedance
AW-01	PMP	A6D	Arsenic, total	mg/L	11/18/2022 - 08/22/2023	6	0	CI around mean	-0.000517	0.0187	Background	No Exceedance
AW-01	PMP	A6DR	Arsenic, total	mg/L	11/18/2022 - 11/06/2023	7	0	CI around mean	0.00187	0.0187	Background	No Exceedance
AW-01	PMP	A6	Barium, total	mg/L	11/18/2022 - 02/28/2023	4	0	CI around mean	0.0647	2.0	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Barium, total	mg/L	11/18/2022 - 06/14/2023	5	0	CI around mean	0.0903	2.0	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Barium, total	mg/L	11/18/2022 - 08/22/2023	6	0	CI around mean	0.101	2.0	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Barium, total	mg/L	11/18/2022 - 11/06/2023	7	0	CI around mean	0.109	2.0	MCL/HBL	No Exceedance
AW-01	PMP	A6	Beryllium, total	mg/L	11/18/2022 - 02/28/2023	4	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-01	PMP	A6R	Beryllium, total	mg/L	11/18/2022 - 06/14/2023	5	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-01	PMP	A6D	Beryllium, total	mg/L	11/18/2022 - 08/22/2023	6	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-01	PMP	A6DR	Beryllium, total	mg/L	11/18/2022 - 11/06/2023	7	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-01	PMP	A6	Cadmium, total	mg/L	11/18/2022 - 02/28/2023	4	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Cadmium, total	mg/L	11/18/2022 - 06/14/2023	5	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Cadmium, total	mg/L	11/18/2022 - 08/22/2023	6	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Cadmium, total	mg/L	11/18/2022 - 11/06/2023	7	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-01	PMP	A6	Chromium, total	mg/L	11/18/2022 - 02/28/2023	4	75	CI around median (Last Sample, n<7)	0.019	0.1	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-01	PMP	A6R	Chromium, total	mg/L	11/18/2022 - 06/14/2023	5	80	CI around median (Last Sample, n<7)	0.004	0.1	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Chromium, total	mg/L	11/18/2022 - 08/22/2023	6	83	CI around median (Last Sample, n<7)	0.004	0.1	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Chromium, total	mg/L	11/18/2022 - 11/06/2023	7	71	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-01	PMP	A6	Cobalt, total	mg/L	11/18/2022 - 02/28/2023	4	0	CI around mean	0.00119	0.006	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Cobalt, total	mg/L	11/18/2022 - 06/14/2023	5	0	CI around mean	0.00199	0.006	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Cobalt, total	mg/L	11/18/2022 - 08/22/2023	6	0	CI around mean	0.0025	0.006	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Cobalt, total	mg/L	11/18/2022 - 11/06/2023	7	0	CI around mean	0.00296	0.006	MCL/HBL	No Exceedance
AW-01	PMP	A6	Fluoride, total	mg/L	11/18/2022 - 02/28/2023	4	50	CI around mean	0.235	4.0	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Fluoride, total	mg/L	11/18/2022 - 06/14/2023	5	60	CI around median (Last Sample, n<7)	0.25	4.0	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Fluoride, total	mg/L	11/18/2022 - 08/22/2023	6	50	CI around mean	0.245	4.0	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Fluoride, total	mg/L	11/18/2022 - 11/06/2023	7	57	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-01	PMP	A6	Lead, total	mg/L	11/18/2022 - 02/28/2023	4	75	CI around median (Last Sample, n<7)	0.0092	0.015	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Lead, total	mg/L	11/18/2022 - 06/14/2023	5	80	CI around median (Last Sample, n<7)	0.001	0.015	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Lead, total	mg/L	11/18/2022 - 08/22/2023	6	83	CI around median (Last Sample, n<7)	0.001	0.015	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Lead, total	mg/L	11/18/2022 - 11/06/2023	7	71	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-01	PMP	A6	Lithium, total	mg/L	11/18/2022 - 02/28/2023	4	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AW-01	PMP	A6R	Lithium, total	mg/L	11/18/2022 - 06/14/2023	5	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AW-01	PMP	A6D	Lithium, total	mg/L	11/18/2022 - 08/22/2023	6	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AW-01	PMP	A6DR	Lithium, total	mg/L	11/18/2022 - 11/06/2023	7	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AW-01	PMP	A6	Mercury, total	mg/L	11/18/2022 - 02/28/2023	4	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Mercury, total	mg/L	11/18/2022 - 06/14/2023	5	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Mercury, total	mg/L	11/18/2022 - 08/22/2023	6	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Mercury, total	mg/L	11/18/2022 - 11/06/2023	7	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-01	PMP	A6	Molybdenum, total	mg/L	11/18/2022 - 02/28/2023	4	0	CI around mean	0.000567	0.1	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Molybdenum, total	mg/L	11/18/2022 - 06/14/2023	5	0	CI around mean	0.00159	0.1	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Molybdenum, total	mg/L	11/18/2022 - 08/22/2023	6	0	CI around mean	0.00212	0.1	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Molybdenum, total	mg/L	11/18/2022 - 11/06/2023	7	0	CI around mean	0.0024	0.1	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-01	PMP	A6	Radium 226 + Radium 228, total	pCi/L	11/18/2022 - 02/28/2023	4	0	CI around mean	-2.02	5	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Radium 226 + Radium 228, total	pCi/L	11/18/2022 - 06/14/2023	5	0	CI around mean	-0.997	5	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Radium 226 + Radium 228, total	pCi/L	11/18/2022 - 08/22/2023	6	0	CI around mean	-0.466	5	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Radium 226 + Radium 228, total	pCi/L	11/18/2022 - 11/06/2023	7	0	CI around mean	-0.579	5	MCL/HBL	No Exceedance
AW-01	PMP	A6	Selenium, total	mg/L	11/18/2022 - 02/28/2023	4	75	CI around median (Last Sample, n<7)	0.0011	0.05	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Selenium, total	mg/L	11/18/2022 - 06/14/2023	5	80	CI around median (Last Sample, n<7)	0.001	0.05	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Selenium, total	mg/L	11/18/2022 - 08/22/2023	6	83	CI around median (Last Sample, n<7)	0.001	0.05	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Selenium, total	mg/L	11/18/2022 - 11/06/2023	7	86	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-01	PMP	A6	Thallium, total	mg/L	11/18/2022 - 02/28/2023	4	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-01	PMP	A6R	Thallium, total	mg/L	11/18/2022 - 06/14/2023	5	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-01	PMP	A6D	Thallium, total	mg/L	11/18/2022 - 08/22/2023	6	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-01	PMP	A6DR	Thallium, total	mg/L	11/18/2022 - 11/06/2023	7	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-05	UA	A6	Antimony, total	mg/L	11/09/2015 - 02/28/2023	13	92	Most recent sample	0.003	0.006	MCL/HBL	No Exceedance
AW-05	UA	A6R	Antimony, total	mg/L	11/09/2015 - 06/15/2023	14	93	Most recent sample	0.003	0.006	MCL/HBL	No Exceedance
AW-05	UA	A6D	Antimony, total	mg/L	11/09/2015 - 08/28/2023	15	93	Most recent sample	0.003	0.006	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Antimony, total	mg/L	11/09/2015 - 11/06/2023	16	94	Most recent sample	0.003	0.006	MCL/HBL	No Exceedance
AW-05	UA	A6	Arsenic, total	mg/L	11/09/2015 - 02/28/2023	13	0	CI around geomean	0.00399	0.0187	Background	No Exceedance
AW-05	UA	A6R	Arsenic, total	mg/L	11/09/2015 - 06/15/2023	14	0	CI around geomean	0.00403	0.0187	Background	No Exceedance
AW-05	UA	A6D	Arsenic, total	mg/L	11/09/2015 - 08/28/2023	15	0	CI around geomean	0.00393	0.0187	Background	No Exceedance
AW-05	UA	A6DR	Arsenic, total	mg/L	11/09/2015 - 11/06/2023	16	0	CI around geomean	0.00384	0.0187	Background	No Exceedance
AW-05	UA	A6	Barium, total	mg/L	11/09/2015 - 02/28/2023	13	0	CI around mean	0.143	2.0	MCL/HBL	No Exceedance
AW-05	UA	A6R	Barium, total	mg/L	11/09/2015 - 06/15/2023	14	0	CI around mean	0.144	2.0	MCL/HBL	No Exceedance
AW-05	UA	A6D	Barium, total	mg/L	11/09/2015 - 08/28/2023	15	0	CI around mean	0.142	2.0	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Barium, total	mg/L	11/09/2015 - 11/06/2023	16	0	CI around geomean	0.139	2.0	MCL/HBL	No Exceedance
AW-05	UA	A6	Beryllium, total	mg/L	11/09/2015 - 02/28/2023	12	83	CI around median	0.001	0.0140	Background	No Exceedance
AW-05	UA	A6R	Beryllium, total	mg/L	11/09/2015 - 06/15/2023	13	85	CI around median	0.001	0.0140	Background	No Exceedance
AW-05	UA	A6D	Beryllium, total	mg/L	11/09/2015 - 08/28/2023	14	86	CI around median	0.001	0.0140	Background	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-05	UA	A6DR	Beryllium, total	mg/L	11/09/2015 - 11/06/2023	15	87	CI around median	0.001	0.0140	Background	No Exceedance
AW-05	UA	A6	Cadmium, total	mg/L	11/09/2015 - 02/28/2023	13	85	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-05	UA	A6R	Cadmium, total	mg/L	11/09/2015 - 06/15/2023	14	86	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-05	UA	A6D	Cadmium, total	mg/L	11/09/2015 - 08/28/2023	15	87	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Cadmium, total	mg/L	11/09/2015 - 11/06/2023	16	88	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-05	UA	A6	Chromium, total	mg/L	11/09/2015 - 02/28/2023	13	38	CI around geomean	0.00543	0.1	MCL/HBL	No Exceedance
AW-05	UA	A6R	Chromium, total	mg/L	11/09/2015 - 06/15/2023	14	36	CI around geomean	0.00573	0.1	MCL/HBL	No Exceedance
AW-05	UA	A6D	Chromium, total	mg/L	11/09/2015 - 08/28/2023	15	33	CI around geomean	0.00583	0.1	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Chromium, total	mg/L	11/09/2015 - 11/06/2023	16	31	CI around geomean	0.00561	0.1	MCL/HBL	No Exceedance
AW-05	UA	A6	Cobalt, total	mg/L	11/09/2015 - 02/28/2023	13	23	CI around geomean	0.00316	0.006	MCL/HBL	No Exceedance
AW-05	UA	A6R	Cobalt, total	mg/L	11/09/2015 - 06/15/2023	14	21	CI around geomean	0.00336	0.006	MCL/HBL	No Exceedance
AW-05	UA	A6D	Cobalt, total	mg/L	11/09/2015 - 08/28/2023	15	20	CI around geomean	0.00348	0.006	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Cobalt, total	mg/L	11/09/2015 - 11/06/2023	16	19	CI around geomean	0.00345	0.006	MCL/HBL	No Exceedance
AW-05	UA	A6	Fluoride, total	mg/L	11/09/2015 - 02/28/2023	14	43	CI around geomean	0.256	4.0	MCL/HBL	No Exceedance
AW-05	UA	A6R	Fluoride, total	mg/L	11/09/2015 - 06/15/2023	15	47	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-05	UA	A6D	Fluoride, total	mg/L	11/09/2015 - 08/28/2023	16	50	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Fluoride, total	mg/L	11/09/2015 - 11/06/2023	17	53	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-05	UA	A6	Lead, total	mg/L	11/09/2015 - 02/28/2023	12	42	CI around geomean	0.00141	0.015	MCL/HBL	No Exceedance
AW-05	UA	A6R	Lead, total	mg/L	11/09/2015 - 06/15/2023	13	38	CI around geomean	0.00156	0.015	MCL/HBL	No Exceedance
AW-05	UA	A6D	Lead, total	mg/L	11/09/2015 - 08/28/2023	14	36	CI around geomean	0.00168	0.015	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Lead, total	mg/L	11/09/2015 - 11/06/2023	15	33	CI around geomean	0.00168	0.015	MCL/HBL	No Exceedance
AW-05	UA	A6	Lithium, total	mg/L	11/09/2015 - 02/28/2023	13	15	CI around geomean	0.0223	0.0541	Background	No Exceedance
AW-05	UA	A6R	Lithium, total	mg/L	11/09/2015 - 06/15/2023	14	21	CI around geomean	0.0217	0.0541	Background	No Exceedance
AW-05	UA	A6D	Lithium, total	mg/L	11/09/2015 - 08/28/2023	15	27	CI around geomean	0.0212	0.0541	Background	No Exceedance
AW-05	UA	A6DR	Lithium, total	mg/L	11/09/2015 - 11/06/2023	16	31	CI around geomean	0.0208	0.0541	Background	No Exceedance
AW-05	UA	A6	Mercury, total	mg/L	11/09/2015 - 02/28/2023	13	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-05	UA	A6R	Mercury, total	mg/L	11/09/2015 - 06/15/2023	14	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-05	UA	A6D	Mercury, total	mg/L	11/09/2015 - 08/28/2023	15	93	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Mercury, total	mg/L	11/09/2015 - 11/06/2023	16	94	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-05	UA	A6	Molybdenum, total	mg/L	11/09/2015 - 02/28/2023	13	0	CI around mean	0.00199	0.1	MCL/HBL	No Exceedance
AW-05	UA	A6R	Molybdenum, total	mg/L	11/09/2015 - 06/15/2023	14	0	CI around mean	0.00202	0.1	MCL/HBL	No Exceedance
AW-05	UA	A6D	Molybdenum, total	mg/L	11/09/2015 - 08/28/2023	15	0	CI around mean	0.00206	0.1	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Molybdenum, total	mg/L	11/09/2015 - 11/06/2023	16	0	CI around mean	0.00207	0.1	MCL/HBL	No Exceedance
AW-05	UA	A6	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 02/28/2023	13	0	CI around mean	0.622	5	MCL/HBL	No Exceedance
AW-05	UA	A6R	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 06/15/2023	14	0	CI around mean	0.750	5	MCL/HBL	No Exceedance
AW-05	UA	A6D	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 08/28/2023	15	0	CI around mean	0.673	5	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 11/06/2023	16	0	CI around mean	0.650	5	MCL/HBL	No Exceedance
AW-05	UA	A6	Selenium, total	mg/L	11/09/2015 - 02/28/2023	13	38	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-05	UA	A6R	Selenium, total	mg/L	11/09/2015 - 06/15/2023	14	43	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-05	UA	A6D	Selenium, total	mg/L	11/09/2015 - 08/28/2023	15	47	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Selenium, total	mg/L	11/09/2015 - 11/06/2023	16	50	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-05	UA	A6	Thallium, total	mg/L	11/09/2015 - 02/28/2023	12	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-05	UA	A6R	Thallium, total	mg/L	11/09/2015 - 06/15/2023	13	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-05	UA	A6D	Thallium, total	mg/L	11/09/2015 - 08/28/2023	14	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-05	UA	A6DR	Thallium, total	mg/L	11/09/2015 - 11/06/2023	15	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-06	UA	A6	Antimony, total	mg/L	11/10/2015 - 02/28/2023	14	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-06	UA	A6R	Antimony, total	mg/L	11/10/2015 - 06/14/2023	15	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-06	UA	A6D	Antimony, total	mg/L	11/10/2015 - 08/28/2023	16	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Antimony, total	mg/L	11/10/2015 - 11/06/2023	17	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-06	UA	A6	Arsenic, total	mg/L	11/10/2015 - 02/28/2023	19	0	CI around geomean	0.00285	0.0187	Background	No Exceedance
AW-06	UA	A6R	Arsenic, total	mg/L	11/10/2015 - 06/14/2023	20	0	CI around geomean	0.00286	0.0187	Background	No Exceedance
AW-06	UA	A6D	Arsenic, total	mg/L	11/10/2015 - 08/28/2023	21	0	CI around geomean	0.00295	0.0187	Background	No Exceedance
AW-06	UA	A6DR	Arsenic, total	mg/L	11/10/2015 - 11/06/2023	22	0	CI around geomean	0.00301	0.0187	Background	No Exceedance
AW-06	UA	A6	Barium, total	mg/L	11/10/2015 - 02/28/2023	19	0	CI around geomean	0.183	2.0	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-06	UA	A6R	Barium, total	mg/L	11/10/2015 - 06/14/2023	20	0	CI around median	0.16	2.0	MCL/HBL	No Exceedance
AW-06	UA	A6D	Barium, total	mg/L	11/10/2015 - 08/28/2023	21	0	CI around median	0.18	2.0	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Barium, total	mg/L	11/10/2015 - 11/06/2023	22	0	CI around median	0.18	2.0	MCL/HBL	No Exceedance
AW-06	UA	A6	Beryllium, total	mg/L	11/10/2015 - 02/28/2023	19	84	CI around median	0.001	0.0140	Background	No Exceedance
AW-06	UA	A6R	Beryllium, total	mg/L	11/10/2015 - 06/14/2023	20	85	CI around median	0.001	0.0140	Background	No Exceedance
AW-06	UA	A6D	Beryllium, total	mg/L	11/10/2015 - 08/28/2023	21	86	CI around median	0.001	0.0140	Background	No Exceedance
AW-06	UA	A6DR	Beryllium, total	mg/L	11/10/2015 - 11/06/2023	22	86	CI around median	0.001	0.0140	Background	No Exceedance
AW-06	UA	A6	Cadmium, total	mg/L	11/10/2015 - 02/28/2023	14	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-06	UA	A6R	Cadmium, total	mg/L	11/10/2015 - 06/14/2023	15	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-06	UA	A6D	Cadmium, total	mg/L	11/10/2015 - 08/28/2023	16	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Cadmium, total	mg/L	11/10/2015 - 11/06/2023	17	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-06	UA	A6	Chromium, total	mg/L	11/10/2015 - 02/28/2023	19	47	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-06	UA	A6R	Chromium, total	mg/L	11/10/2015 - 06/14/2023	20	50	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-06	UA	A6D	Chromium, total	mg/L	11/10/2015 - 08/28/2023	21	52	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Chromium, total	mg/L	11/10/2015 - 11/06/2023	22	55	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-06	UA	A6	Cobalt, total	mg/L	11/10/2015 - 02/28/2023	19	53	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-06	UA	A6R	Cobalt, total	mg/L	11/10/2015 - 06/14/2023	20	55	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-06	UA	A6D	Cobalt, total	mg/L	11/10/2015 - 08/28/2023	21	57	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Cobalt, total	mg/L	11/10/2015 - 11/06/2023	22	59	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-06	UA	A6	Fluoride, total	mg/L	11/10/2015 - 02/28/2023	20	10	CI around median	0.314	4.0	MCL/HBL	No Exceedance
AW-06	UA	A6R	Fluoride, total	mg/L	11/10/2015 - 06/14/2023	21	9.5	CI around median	0.319	4.0	MCL/HBL	No Exceedance
AW-06	UA	A6D	Fluoride, total	mg/L	11/10/2015 - 08/28/2023	22	9.1	CB around T-S line	0.215	4.0	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Fluoride, total	mg/L	11/10/2015 - 11/06/2023	23	8.7	CB around T-S line	0.201	4.0	MCL/HBL	No Exceedance
AW-06	UA	A6	Lead, total	mg/L	11/10/2015 - 02/28/2023	19	32	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-06	UA	A6R	Lead, total	mg/L	11/10/2015 - 06/14/2023	20	35	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-06	UA	A6D	Lead, total	mg/L	11/10/2015 - 08/28/2023	21	38	CB around T-S line	-0.00334	0.015	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Lead, total	mg/L	11/10/2015 - 11/06/2023	22	36	CI around median	0.001	0.015	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-06	UA	A6	Lithium, total	mg/L	11/10/2015 - 02/28/2023	19	37	CI around mean	0.0137	0.0541	Background	No Exceedance
AW-06	UA	A6R	Lithium, total	mg/L	11/10/2015 - 06/14/2023	20	40	CI around mean	0.0135	0.0541	Background	No Exceedance
AW-06	UA	A6D	Lithium, total	mg/L	11/10/2015 - 08/28/2023	21	43	CI around mean	0.0134	0.0541	Background	No Exceedance
AW-06	UA	A6DR	Lithium, total	mg/L	11/10/2015 - 11/06/2023	22	45	CI around geomean	0.0129	0.0541	Background	No Exceedance
AW-06	UA	A6	Mercury, total	mg/L	11/10/2015 - 02/28/2023	14	93	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-06	UA	A6R	Mercury, total	mg/L	11/10/2015 - 06/14/2023	15	93	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-06	UA	A6D	Mercury, total	mg/L	11/10/2015 - 08/28/2023	16	94	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Mercury, total	mg/L	11/10/2015 - 11/06/2023	17	94	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-06	UA	A6	Molybdenum, total	mg/L	11/10/2015 - 02/28/2023	19	0	CI around mean	0.00473	0.1	MCL/HBL	No Exceedance
AW-06	UA	A6R	Molybdenum, total	mg/L	11/10/2015 - 06/14/2023	20	0	CI around mean	0.00474	0.1	MCL/HBL	No Exceedance
AW-06	UA	A6D	Molybdenum, total	mg/L	11/10/2015 - 08/28/2023	21	0	CI around mean	0.00481	0.1	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Molybdenum, total	mg/L	11/10/2015 - 11/06/2023	22	0	CI around mean	0.0048	0.1	MCL/HBL	No Exceedance
AW-06	UA	A6	Radium 226 + Radium 228, total	pCi/L	11/10/2015 - 02/28/2023	19	0	CI around mean	0.714	5	MCL/HBL	No Exceedance
AW-06	UA	A6R	Radium 226 + Radium 228, total	pCi/L	11/10/2015 - 06/14/2023	20	0	CI around mean	0.725	5	MCL/HBL	No Exceedance
AW-06	UA	A6D	Radium 226 + Radium 228, total	pCi/L	11/10/2015 - 08/28/2023	21	0	CI around mean	0.679	5	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	11/10/2015 - 11/06/2023	22	0	CI around mean	0.684	5	MCL/HBL	No Exceedance
AW-06	UA	A6	Selenium, total	mg/L	11/10/2015 - 02/28/2023	19	68	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-06	UA	A6R	Selenium, total	mg/L	11/10/2015 - 06/14/2023	20	70	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-06	UA	A6D	Selenium, total	mg/L	11/10/2015 - 08/28/2023	21	71	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Selenium, total	mg/L	11/10/2015 - 11/06/2023	22	73	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-06	UA	A6	Thallium, total	mg/L	11/10/2015 - 02/28/2023	14	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-06	UA	A6R	Thallium, total	mg/L	11/10/2015 - 06/14/2023	15	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-06	UA	A6D	Thallium, total	mg/L	11/10/2015 - 08/28/2023	16	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-06	UA	A6DR	Thallium, total	mg/L	11/10/2015 - 11/06/2023	17	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-09	UA	A6	Antimony, total	mg/L	11/10/2015 - 02/28/2023	14	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-09	UA	A6R	Antimony, total	mg/L	11/10/2015 - 06/12/2023	15	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-09	UA	A6D	Antimony, total	mg/L	11/10/2015 - 08/29/2023	16	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-09	UA	A6DR	Antimony, total	mg/L	11/10/2015 - 11/06/2023	17	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-09	UA	A6	Arsenic, total	mg/L	11/10/2015 - 02/28/2023	19	16	CI around mean	0.00664	0.0187	Background	No Exceedance
AW-09	UA	A6R	Arsenic, total	mg/L	11/10/2015 - 06/12/2023	20	15	CI around mean	0.00971	0.0187	Background	No Exceedance
AW-09	UA	A6D	Arsenic, total	mg/L	11/10/2015 - 08/29/2023	21	14	CI around mean	0.0101	0.0187	Background	No Exceedance
AW-09	UA	A6DR	Arsenic, total	mg/L	11/10/2015 - 11/06/2023	22	14	CI around mean	0.0107	0.0187	Background	No Exceedance
AW-09	UA	A6	Barium, total	mg/L	11/10/2015 - 02/28/2023	19	0	CI around geomean	0.272	2.0	MCL/HBL	No Exceedance
AW-09	UA	A6R	Barium, total	mg/L	11/10/2015 - 06/12/2023	20	0	CI around geomean	0.273	2.0	MCL/HBL	No Exceedance
AW-09	UA	A6D	Barium, total	mg/L	11/10/2015 - 08/29/2023	21	0	CI around geomean	0.278	2.0	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Barium, total	mg/L	11/10/2015 - 11/06/2023	22	0	CI around geomean	0.284	2.0	MCL/HBL	No Exceedance
AW-09	UA	A6	Beryllium, total	mg/L	11/10/2015 - 02/28/2023	19	79	CB around T-S line	-0.00098	0.0140	Background	No Exceedance
AW-09	UA	A6R	Beryllium, total	mg/L	11/10/2015 - 06/12/2023	20	80	CB around T-S line	-0.00127	0.0140	Background	No Exceedance
AW-09	UA	A6D	Beryllium, total	mg/L	11/10/2015 - 08/29/2023	21	81	CB around T-S line	-0.000697	0.0140	Background	No Exceedance
AW-09	UA	A6DR	Beryllium, total	mg/L	11/10/2015 - 11/06/2023	22	82	CB around T-S line	-0.000407	0.0140	Background	No Exceedance
AW-09	UA	A6	Cadmium, total	mg/L	11/10/2015 - 02/28/2023	14	86	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-09	UA	A6R	Cadmium, total	mg/L	11/10/2015 - 06/12/2023	15	87	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-09	UA	A6D	Cadmium, total	mg/L	11/10/2015 - 08/29/2023	16	88	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Cadmium, total	mg/L	11/10/2015 - 11/06/2023	17	88	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-09	UA	A6	Chromium, total	mg/L	11/10/2015 - 02/28/2023	19	47	CB around T-S line	-0.0715	0.1	MCL/HBL	No Exceedance
AW-09	UA	A6R	Chromium, total	mg/L	11/10/2015 - 06/12/2023	20	50	CB around T-S line	-0.0731	0.1	MCL/HBL	No Exceedance
AW-09	UA	A6D	Chromium, total	mg/L	11/10/2015 - 08/29/2023	21	52	CB around T-S line	-0.0626	0.1	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Chromium, total	mg/L	11/10/2015 - 11/06/2023	22	55	CB around T-S line	-0.0517	0.1	MCL/HBL	No Exceedance
AW-09	UA	A6	Cobalt, total	mg/L	11/10/2015 - 02/28/2023	19	5.3	CB around T-S line	-0.0386	0.006	MCL/HBL	No Exceedance
AW-09	UA	A6R	Cobalt, total	mg/L	11/10/2015 - 06/12/2023	20	5.0	CB around T-S line	-0.0405	0.006	MCL/HBL	No Exceedance
AW-09	UA	A6D	Cobalt, total	mg/L	11/10/2015 - 08/29/2023	21	4.8	CB around T-S line	-0.0344	0.006	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Cobalt, total	mg/L	11/10/2015 - 11/06/2023	22	4.5	CB around T-S line	-0.0282	0.006	MCL/HBL	No Exceedance
AW-09	UA	A6	Fluoride, total	mg/L	11/10/2015 - 02/28/2023	20	55	CB around T-S line	0.177	4.0	MCL/HBL	No Exceedance
AW-09	UA	A6R	Fluoride, total	mg/L	11/10/2015 - 06/12/2023	21	57	CB around T-S line	0.168	4.0	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-09	UA	A6D	Fluoride, total	mg/L	11/10/2015 - 08/29/2023	22	59	CB around T-S line	0.182	4.0	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Fluoride, total	mg/L	11/10/2015 - 11/06/2023	23	61	CB around T-S line	0.181	4.0	MCL/HBL	No Exceedance
AW-09	UA	A6	Lead, total	mg/L	11/10/2015 - 02/28/2023	19	42	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-09	UA	A6R	Lead, total	mg/L	11/10/2015 - 06/12/2023	20	45	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-09	UA	A6D	Lead, total	mg/L	11/10/2015 - 08/29/2023	21	43	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Lead, total	mg/L	11/10/2015 - 11/06/2023	22	41	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-09	UA	A6	Lithium, total	mg/L	11/10/2015 - 02/28/2023	19	21	CB around T-S line	-0.0853	0.0541	Background	No Exceedance
AW-09	UA	A6R	Lithium, total	mg/L	11/10/2015 - 06/12/2023	20	25	CB around T-S line	-0.0899	0.0541	Background	No Exceedance
AW-09	UA	A6D	Lithium, total	mg/L	11/10/2015 - 08/29/2023	21	29	CB around T-S line	-0.0734	0.0541	Background	No Exceedance
AW-09	UA	A6DR	Lithium, total	mg/L	11/10/2015 - 11/06/2023	22	32	CB around T-S line	-0.0543	0.0541	Background	No Exceedance
AW-09	UA	A6	Mercury, total	mg/L	11/10/2015 - 02/28/2023	14	93	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-09	UA	A6R	Mercury, total	mg/L	11/10/2015 - 06/12/2023	15	93	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-09	UA	A6D	Mercury, total	mg/L	11/10/2015 - 08/29/2023	16	94	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Mercury, total	mg/L	11/10/2015 - 11/06/2023	17	94	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-09	UA	A6	Molybdenum, total	mg/L	11/10/2015 - 02/28/2023	19	0	CI around mean	0.013	0.1	MCL/HBL	No Exceedance
AW-09	UA	A6R	Molybdenum, total	mg/L	11/10/2015 - 06/12/2023	20	0	CI around mean	0.0134	0.1	MCL/HBL	No Exceedance
AW-09	UA	A6D	Molybdenum, total	mg/L	11/10/2015 - 08/29/2023	21	0	CI around mean	0.0137	0.1	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Molybdenum, total	mg/L	11/10/2015 - 11/06/2023	22	0	CI around mean	0.0141	0.1	MCL/HBL	No Exceedance
AW-09	UA	A6	Radium 226 + Radium 228, total	pCi/L	11/10/2015 - 02/28/2023	19	0	CI around median	0.729	5	MCL/HBL	No Exceedance
AW-09	UA	A6R	Radium 226 + Radium 228, total	pCi/L	11/10/2015 - 06/12/2023	20	0	CI around median	0.633	5	MCL/HBL	No Exceedance
AW-09	UA	A6D	Radium 226 + Radium 228, total	pCi/L	11/10/2015 - 08/29/2023	21	0	CI around median	0.729	5	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	11/10/2015 - 11/06/2023	22	0	CI around median	0.729	5	MCL/HBL	No Exceedance
AW-09	UA	A6	Selenium, total	mg/L	11/10/2015 - 02/28/2023	19	58	CB around T-S line	-0.00401	0.05	MCL/HBL	No Exceedance
AW-09	UA	A6R	Selenium, total	mg/L	11/10/2015 - 06/12/2023	20	60	CB around T-S line	-0.00401	0.05	MCL/HBL	No Exceedance
AW-09	UA	A6D	Selenium, total	mg/L	11/10/2015 - 08/29/2023	21	62	CB around T-S line	-0.00292	0.05	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Selenium, total	mg/L	11/10/2015 - 11/06/2023	22	64	CB around T-S line	-0.00174	0.05	MCL/HBL	No Exceedance
AW-09	UA	A6	Thallium, total	mg/L	11/10/2015 - 02/28/2023	14	93	CI around median	0.001	0.002	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT
ASH POND
BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-09	UA	A6R	Thallium, total	mg/L	11/10/2015 - 06/12/2023	15	93	CI around median	0.001	0.002	MCL/HBL	No Exceedance
AW-09	UA	A6D	Thallium, total	mg/L	11/10/2015 - 08/29/2023	16	94	CI around median	0.001	0.002	MCL/HBL	No Exceedance
AW-09	UA	A6DR	Thallium, total	mg/L	11/10/2015 - 11/06/2023	17	94	CI around median	0.001	0.002	MCL/HBL	No Exceedance
AW-10	UA	A6	Antimony, total	mg/L	11/09/2015 - 02/28/2023	15	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-10	UA	A6R	Antimony, total	mg/L	11/09/2015 - 06/13/2023	16	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-10	UA	A6D	Antimony, total	mg/L	11/09/2015 - 08/28/2023	17	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Antimony, total	mg/L	11/09/2015 - 11/06/2023	18	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-10	UA	A6	Arsenic, total	mg/L	11/09/2015 - 02/28/2023	20	0	CI around geomean	0.00748	0.0187	Background	No Exceedance
AW-10	UA	A6R	Arsenic, total	mg/L	11/09/2015 - 06/13/2023	21	0	CI around geomean	0.0076	0.0187	Background	No Exceedance
AW-10	UA	A6D	Arsenic, total	mg/L	11/09/2015 - 08/28/2023	22	0	CI around geomean	0.0078	0.0187	Background	No Exceedance
AW-10	UA	A6DR	Arsenic, total	mg/L	11/09/2015 - 11/06/2023	23	0	CI around median	0.0099	0.0187	Background	No Exceedance
AW-10	UA	A6	Barium, total	mg/L	11/09/2015 - 02/28/2023	20	0	CI around median	0.93	2.0	MCL/HBL	No Exceedance
AW-10	UA	A6R	Barium, total	mg/L	11/09/2015 - 06/13/2023	21	0	CI around median	0.98	2.0	MCL/HBL	No Exceedance
AW-10	UA	A6D	Barium, total	mg/L	11/09/2015 - 08/28/2023	22	0	CI around median	0.98	2.0	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Barium, total	mg/L	11/09/2015 - 11/06/2023	23	0	CI around median	0.98	2.0	MCL/HBL	No Exceedance
AW-10	UA	A6	Beryllium, total	mg/L	11/09/2015 - 02/28/2023	20	75	CI around median	0.001	0.0140	Background	No Exceedance
AW-10	UA	A6R	Beryllium, total	mg/L	11/09/2015 - 06/13/2023	21	76	CI around median	0.001	0.0140	Background	No Exceedance
AW-10	UA	A6D	Beryllium, total	mg/L	11/09/2015 - 08/28/2023	22	77	CI around median	0.001	0.0140	Background	No Exceedance
AW-10	UA	A6DR	Beryllium, total	mg/L	11/09/2015 - 11/06/2023	23	74	CI around median	0.001	0.0140	Background	No Exceedance
AW-10	UA	A6	Cadmium, total	mg/L	11/09/2015 - 02/28/2023	15	93	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-10	UA	A6R	Cadmium, total	mg/L	11/09/2015 - 06/13/2023	16	94	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-10	UA	A6D	Cadmium, total	mg/L	11/09/2015 - 08/28/2023	17	94	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Cadmium, total	mg/L	11/09/2015 - 11/06/2023	18	94	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-10	UA	A6	Chromium, total	mg/L	11/09/2015 - 02/28/2023	20	35	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-10	UA	A6R	Chromium, total	mg/L	11/09/2015 - 06/13/2023	21	38	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-10	UA	A6D	Chromium, total	mg/L	11/09/2015 - 08/28/2023	22	36	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Chromium, total	mg/L	11/09/2015 - 11/06/2023	23	35	CI around median	0.004	0.1	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-10	UA	A6	Cobalt, total	mg/L	11/09/2015 - 02/28/2023	20	5.0	CI around geomean	0.00341	0.006	MCL/HBL	No Exceedance
AW-10	UA	A6R	Cobalt, total	mg/L	11/09/2015 - 06/13/2023	21	4.8	CI around geomean	0.00338	0.006	MCL/HBL	No Exceedance
AW-10	UA	A6D	Cobalt, total	mg/L	11/09/2015 - 08/28/2023	22	4.5	CI around geomean	0.00352	0.006	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Cobalt, total	mg/L	11/09/2015 - 11/06/2023	23	4.3	CI around geomean	0.00376	0.006	MCL/HBL	No Exceedance
AW-10	UA	A6	Fluoride, total	mg/L	11/09/2015 - 02/28/2023	21	95	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-10	UA	A6R	Fluoride, total	mg/L	11/09/2015 - 06/13/2023	22	95	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-10	UA	A6D	Fluoride, total	mg/L	11/09/2015 - 08/28/2023	23	96	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Fluoride, total	mg/L	11/09/2015 - 11/06/2023	24	96	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-10	UA	A6	Lead, total	mg/L	11/09/2015 - 02/28/2023	20	15	CI around geomean	0.00172	0.015	MCL/HBL	No Exceedance
AW-10	UA	A6R	Lead, total	mg/L	11/09/2015 - 06/13/2023	21	14	CI around geomean	0.0017	0.015	MCL/HBL	No Exceedance
AW-10	UA	A6D	Lead, total	mg/L	11/09/2015 - 08/28/2023	22	14	CI around geomean	0.00182	0.015	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Lead, total	mg/L	11/09/2015 - 11/06/2023	23	13	CI around geomean	0.00199	0.015	MCL/HBL	No Exceedance
AW-10	UA	A6	Lithium, total	mg/L	11/09/2015 - 02/28/2023	20	0	CB around T-S line	-0.0461	0.0541	Background	No Exceedance
AW-10	UA	A6R	Lithium, total	mg/L	11/09/2015 - 06/13/2023	21	0	CB around T-S line	-0.0329	0.0541	Background	No Exceedance
AW-10	UA	A6D	Lithium, total	mg/L	11/09/2015 - 08/28/2023	22	0	CB around T-S line	-0.0418	0.0541	Background	No Exceedance
AW-10	UA	A6DR	Lithium, total	mg/L	11/09/2015 - 11/06/2023	23	0	CB around T-S line	-0.0149	0.0541	Background	No Exceedance
AW-10	UA	A6	Mercury, total	mg/L	11/09/2015 - 02/28/2023	15	93	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-10	UA	A6R	Mercury, total	mg/L	11/09/2015 - 06/13/2023	16	94	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-10	UA	A6D	Mercury, total	mg/L	11/09/2015 - 08/28/2023	17	94	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Mercury, total	mg/L	11/09/2015 - 11/06/2023	18	94	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-10	UA	A6	Molybdenum, total	mg/L	11/09/2015 - 02/28/2023	20	30	CB around T-S line	-0.000505	0.1	MCL/HBL	No Exceedance
AW-10	UA	A6R	Molybdenum, total	mg/L	11/09/2015 - 06/13/2023	21	29	CB around T-S line	-0.000917	0.1	MCL/HBL	No Exceedance
AW-10	UA	A6D	Molybdenum, total	mg/L	11/09/2015 - 08/28/2023	22	27	CB around T-S line	-0.000829	0.1	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Molybdenum, total	mg/L	11/09/2015 - 11/06/2023	23	26	CB around T-S line	-0.000377	0.1	MCL/HBL	No Exceedance
AW-10	UA	A6	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 02/28/2023	20	0	CI around mean	2.14	5	MCL/HBL	No Exceedance
AW-10	UA	A6R	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 06/13/2023	21	0	CI around mean	2.18	5	MCL/HBL	No Exceedance
AW-10	UA	A6D	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 08/28/2023	22	0	CI around mean	2.27	5	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-10	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 11/06/2023	23	0	CI around mean	2.33	5	MCL/HBL	No Exceedance
AW-10	UA	A6	Selenium, total	mg/L	11/09/2015 - 02/28/2023	20	60	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-10	UA	A6R	Selenium, total	mg/L	11/09/2015 - 06/13/2023	21	62	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-10	UA	A6D	Selenium, total	mg/L	11/09/2015 - 08/28/2023	22	64	CB around T-S line	-0.000131	0.05	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Selenium, total	mg/L	11/09/2015 - 11/06/2023	23	61	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-10	UA	A6	Thallium, total	mg/L	11/09/2015 - 02/28/2023	15	93	CI around median	0.001	0.002	MCL/HBL	No Exceedance
AW-10	UA	A6R	Thallium, total	mg/L	11/09/2015 - 06/13/2023	16	94	CI around median	0.001	0.002	MCL/HBL	No Exceedance
AW-10	UA	A6D	Thallium, total	mg/L	11/09/2015 - 08/28/2023	17	94	CI around median	0.001	0.002	MCL/HBL	No Exceedance
AW-10	UA	A6DR	Thallium, total	mg/L	11/09/2015 - 11/06/2023	18	94	CI around median	0.001	0.002	MCL/HBL	No Exceedance
AW-11	UA	A6	Antimony, total	mg/L	11/09/2015 - 02/28/2023	14	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-11	UA	A6R	Antimony, total	mg/L	11/09/2015 - 06/13/2023	15	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-11	UA	A6D	Antimony, total	mg/L	11/09/2015 - 08/28/2023	16	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Antimony, total	mg/L	11/09/2015 - 11/03/2023	17	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-11	UA	A6	Arsenic, total	mg/L	11/09/2015 - 02/28/2023	19	0	CI around mean	0.00939	0.0187	Background	No Exceedance
AW-11	UA	A6R	Arsenic, total	mg/L	11/09/2015 - 06/13/2023	20	0	CI around mean	0.00942	0.0187	Background	No Exceedance
AW-11	UA	A6D	Arsenic, total	mg/L	11/09/2015 - 08/28/2023	21	0	CI around mean	0.0095	0.0187	Background	No Exceedance
AW-11	UA	A6DR	Arsenic, total	mg/L	11/09/2015 - 11/03/2023	22	0	CI around geomean	0.00905	0.0187	Background	No Exceedance
AW-11	UA	A6	Barium, total	mg/L	11/09/2015 - 02/28/2023	19	0	CI around geomean	0.867	2.0	MCL/HBL	No Exceedance
AW-11	UA	A6R	Barium, total	mg/L	11/09/2015 - 06/13/2023	20	0	CI around geomean	0.871	2.0	MCL/HBL	No Exceedance
AW-11	UA	A6D	Barium, total	mg/L	11/09/2015 - 08/28/2023	21	0	CI around geomean	0.871	2.0	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Barium, total	mg/L	11/09/2015 - 11/03/2023	22	0	CI around geomean	0.869	2.0	MCL/HBL	No Exceedance
AW-11	UA	A6	Beryllium, total	mg/L	11/09/2015 - 02/28/2023	19	74	CI around median	0.001	0.0140	Background	No Exceedance
AW-11	UA	A6R	Beryllium, total	mg/L	11/09/2015 - 06/13/2023	20	75	CI around median	0.001	0.0140	Background	No Exceedance
AW-11	UA	A6D	Beryllium, total	mg/L	11/09/2015 - 08/28/2023	21	76	CI around median	0.001	0.0140	Background	No Exceedance
AW-11	UA	A6DR	Beryllium, total	mg/L	11/09/2015 - 11/03/2023	22	77	CI around median	0.001	0.0140	Background	No Exceedance
AW-11	UA	A6	Cadmium, total	mg/L	11/09/2015 - 02/28/2023	14	79	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-11	UA	A6R	Cadmium, total	mg/L	11/09/2015 - 06/13/2023	15	80	CI around median	0.001	0.005	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-11	UA	A6D	Cadmium, total	mg/L	11/09/2015 - 08/28/2023	16	81	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Cadmium, total	mg/L	11/09/2015 - 11/03/2023	17	82	CI around median	0.001	0.005	MCL/HBL	No Exceedance
AW-11	UA	A6	Chromium, total	mg/L	11/09/2015 - 02/28/2023	19	42	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-11	UA	A6R	Chromium, total	mg/L	11/09/2015 - 06/13/2023	20	45	CB around T-S line	-0.0209	0.1	MCL/HBL	No Exceedance
AW-11	UA	A6D	Chromium, total	mg/L	11/09/2015 - 08/28/2023	21	48	CB around T-S line	-0.0235	0.1	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Chromium, total	mg/L	11/09/2015 - 11/03/2023	22	50	CB around T-S line	-0.0209	0.1	MCL/HBL	No Exceedance
AW-11	UA	A6	Cobalt, total	mg/L	11/09/2015 - 02/28/2023	19	16	CB around T-S line	-0.0115	0.006	MCL/HBL	No Exceedance
AW-11	UA	A6R	Cobalt, total	mg/L	11/09/2015 - 06/13/2023	20	20	CB around T-S line	-0.0103	0.006	MCL/HBL	No Exceedance
AW-11	UA	A6D	Cobalt, total	mg/L	11/09/2015 - 08/28/2023	21	24	CB around T-S line	-0.00755	0.006	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Cobalt, total	mg/L	11/09/2015 - 11/03/2023	22	27	CB around T-S line	-0.00781	0.006	MCL/HBL	No Exceedance
AW-11	UA	A6	Fluoride, total	mg/L	11/09/2015 - 02/28/2023	20	85	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-11	UA	A6R	Fluoride, total	mg/L	11/09/2015 - 06/13/2023	21	86	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-11	UA	A6D	Fluoride, total	mg/L	11/09/2015 - 08/28/2023	22	86	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Fluoride, total	mg/L	11/09/2015 - 11/03/2023	23	87	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-11	UA	A6	Lead, total	mg/L	11/09/2015 - 02/28/2023	19	32	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-11	UA	A6R	Lead, total	mg/L	11/09/2015 - 06/13/2023	20	35	CB around T-S line	-0.0148	0.015	MCL/HBL	No Exceedance
AW-11	UA	A6D	Lead, total	mg/L	11/09/2015 - 08/28/2023	21	38	CB around T-S line	-0.0111	0.015	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Lead, total	mg/L	11/09/2015 - 11/03/2023	22	41	CB around T-S line	-0.0118	0.015	MCL/HBL	No Exceedance
AW-11	UA	A6	Lithium, total	mg/L	11/09/2015 - 02/28/2023	19	11	CB around T-S line	-0.0264	0.0541	Background	No Exceedance
AW-11	UA	A6R	Lithium, total	mg/L	11/09/2015 - 06/13/2023	20	15	CB around T-S line	-0.0269	0.0541	Background	No Exceedance
AW-11	UA	A6D	Lithium, total	mg/L	11/09/2015 - 08/28/2023	21	14	CB around T-S line	-0.0266	0.0541	Background	No Exceedance
AW-11	UA	A6DR	Lithium, total	mg/L	11/09/2015 - 11/03/2023	22	18	CB around T-S line	-0.0161	0.0541	Background	No Exceedance
AW-11	UA	A6	Mercury, total	mg/L	11/09/2015 - 02/28/2023	14	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-11	UA	A6R	Mercury, total	mg/L	11/09/2015 - 06/13/2023	15	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-11	UA	A6D	Mercury, total	mg/L	11/09/2015 - 08/28/2023	16	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Mercury, total	mg/L	11/09/2015 - 11/03/2023	17	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-11	UA	A6	Molybdenum, total	mg/L	11/09/2015 - 02/28/2023	19	5.3	CB around linear reg	-0.00172	0.1	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-11	UA	A6R	Molybdenum, total	mg/L	11/09/2015 - 06/13/2023	20	5.0	CB around linear reg	-0.00162	0.1	MCL/HBL	No Exceedance
AW-11	UA	A6D	Molybdenum, total	mg/L	11/09/2015 - 08/28/2023	21	4.8	CB around linear reg	-0.00143	0.1	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Molybdenum, total	mg/L	11/09/2015 - 11/03/2023	22	4.5	CB around linear reg	-0.00122	0.1	MCL/HBL	No Exceedance
AW-11	UA	A6	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 02/28/2023	19	0	CI around mean	1.69	5	MCL/HBL	No Exceedance
AW-11	UA	A6R	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 06/13/2023	20	0	CI around mean	1.73	5	MCL/HBL	No Exceedance
AW-11	UA	A6D	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 08/28/2023	21	0	CI around geomean	1.50	5	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	11/09/2015 - 11/03/2023	22	0	CI around geomean	1.52	5	MCL/HBL	No Exceedance
AW-11	UA	A6	Selenium, total	mg/L	11/09/2015 - 02/28/2023	19	63	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-11	UA	A6R	Selenium, total	mg/L	11/09/2015 - 06/13/2023	20	65	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-11	UA	A6D	Selenium, total	mg/L	11/09/2015 - 08/28/2023	21	67	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Selenium, total	mg/L	11/09/2015 - 11/03/2023	22	68	CB around T-S line	-3.86e-05	0.05	MCL/HBL	No Exceedance
AW-11	UA	A6	Thallium, total	mg/L	11/09/2015 - 02/28/2023	14	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-11	UA	A6R	Thallium, total	mg/L	11/09/2015 - 06/13/2023	15	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-11	UA	A6D	Thallium, total	mg/L	11/09/2015 - 08/28/2023	16	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-11	UA	A6DR	Thallium, total	mg/L	11/09/2015 - 11/03/2023	17	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-14	UA	A6	Antimony, total	mg/L	02/11/2021 - 02/28/2023	8	88	CI around median	0.003	0.006	MCL/HBL	No Exceedance
AW-14	UA	A6R	Antimony, total	mg/L	02/11/2021 - 06/13/2023	9	89	CI around median	0.003	0.006	MCL/HBL	No Exceedance
AW-14	UA	A6D	Antimony, total	mg/L	02/11/2021 - 08/23/2023	10	90	CI around median	0.003	0.006	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Antimony, total	mg/L	02/11/2021 - 11/03/2023	11	91	CI around median	0.003	0.006	MCL/HBL	No Exceedance
AW-14	UA	A6	Arsenic, total	mg/L	02/11/2021 - 02/28/2023	8	0	CI around mean	0.00743	0.0187	Background	No Exceedance
AW-14	UA	A6R	Arsenic, total	mg/L	02/11/2021 - 06/13/2023	9	0	CI around mean	0.00745	0.0187	Background	No Exceedance
AW-14	UA	A6D	Arsenic, total	mg/L	02/11/2021 - 08/23/2023	10	0	CI around mean	0.00692	0.0187	Background	No Exceedance
AW-14	UA	A6DR	Arsenic, total	mg/L	02/11/2021 - 11/03/2023	11	0	CI around mean	0.00634	0.0187	Background	No Exceedance
AW-14	UA	A6	Barium, total	mg/L	02/11/2021 - 02/28/2023	8	0	CI around mean	0.622	2.0	MCL/HBL	No Exceedance
AW-14	UA	A6R	Barium, total	mg/L	02/11/2021 - 06/13/2023	9	0	CB around linear reg	0.62	2.0	MCL/HBL	No Exceedance
AW-14	UA	A6D	Barium, total	mg/L	02/11/2021 - 08/23/2023	10	0	CB around linear reg	0.684	2.0	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Barium, total	mg/L	02/11/2021 - 11/03/2023	11	0	CB around linear reg	0.721	2.0	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-14	UA	A6	Beryllium, total	mg/L	02/11/2021 - 02/28/2023	8	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-14	UA	A6R	Beryllium, total	mg/L	02/11/2021 - 06/13/2023	9	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-14	UA	A6D	Beryllium, total	mg/L	02/11/2021 - 08/23/2023	10	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-14	UA	A6DR	Beryllium, total	mg/L	02/11/2021 - 11/03/2023	11	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-14	UA	A6	Cadmium, total	mg/L	02/11/2021 - 02/28/2023	8	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-14	UA	A6R	Cadmium, total	mg/L	02/11/2021 - 06/13/2023	9	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-14	UA	A6D	Cadmium, total	mg/L	02/11/2021 - 08/23/2023	10	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Cadmium, total	mg/L	02/11/2021 - 11/03/2023	11	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-14	UA	A6	Chromium, total	mg/L	02/11/2021 - 02/28/2023	8	88	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-14	UA	A6R	Chromium, total	mg/L	02/11/2021 - 06/13/2023	9	89	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-14	UA	A6D	Chromium, total	mg/L	02/11/2021 - 08/23/2023	10	90	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Chromium, total	mg/L	02/11/2021 - 11/03/2023	11	91	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-14	UA	A6	Cobalt, total	mg/L	02/11/2021 - 02/28/2023	8	0	CI around mean	0.00188	0.006	MCL/HBL	No Exceedance
AW-14	UA	A6R	Cobalt, total	mg/L	02/11/2021 - 06/13/2023	9	0	CB around linear reg	-0.00451	0.006	MCL/HBL	No Exceedance
AW-14	UA	A6D	Cobalt, total	mg/L	02/11/2021 - 08/23/2023	10	10	CB around linear reg	-0.00363	0.006	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Cobalt, total	mg/L	02/11/2021 - 11/03/2023	11	18	CB around linear reg	-0.00242	0.006	MCL/HBL	No Exceedance
AW-14	UA	A6	Fluoride, total	mg/L	02/11/2021 - 02/28/2023	8	75	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-14	UA	A6R	Fluoride, total	mg/L	02/11/2021 - 06/13/2023	9	78	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-14	UA	A6D	Fluoride, total	mg/L	02/11/2021 - 08/23/2023	10	80	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Fluoride, total	mg/L	02/11/2021 - 11/03/2023	11	82	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-14	UA	A6	Lead, total	mg/L	02/11/2021 - 02/28/2023	8	62	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-14	UA	A6R	Lead, total	mg/L	02/11/2021 - 06/13/2023	9	67	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-14	UA	A6D	Lead, total	mg/L	02/11/2021 - 08/23/2023	10	70	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Lead, total	mg/L	02/11/2021 - 11/03/2023	11	73	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-14	UA	A6	Lithium, total	mg/L	02/11/2021 - 02/28/2023	8	38	CI around mean	0.0187	0.0541	Background	No Exceedance
AW-14	UA	A6R	Lithium, total	mg/L	02/11/2021 - 06/13/2023	9	44	CI around mean	0.0189	0.0541	Background	No Exceedance
AW-14	UA	A6D	Lithium, total	mg/L	02/11/2021 - 08/23/2023	10	50	CI around median	0.02	0.0541	Background	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT
ASH POND
BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-14	UA	A6DR	Lithium, total	mg/L	02/11/2021 - 11/03/2023	11	55	CI around median	0.02	0.0541	Background	No Exceedance
AW-14	UA	A6	Mercury, total	mg/L	02/11/2021 - 02/28/2023	8	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-14	UA	A6R	Mercury, total	mg/L	02/11/2021 - 06/13/2023	9	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-14	UA	A6D	Mercury, total	mg/L	02/11/2021 - 08/23/2023	10	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Mercury, total	mg/L	02/11/2021 - 11/03/2023	11	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-14	UA	A6	Molybdenum, total	mg/L	02/11/2021 - 02/28/2023	8	38	CI around mean	-0.00361	0.1	MCL/HBL	No Exceedance
AW-14	UA	A6R	Molybdenum, total	mg/L	02/11/2021 - 06/13/2023	9	33	CI around geomean	0.00127	0.1	MCL/HBL	No Exceedance
AW-14	UA	A6D	Molybdenum, total	mg/L	02/11/2021 - 08/23/2023	10	30	CI around geomean	0.00126	0.1	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Molybdenum, total	mg/L	02/11/2021 - 11/03/2023	11	27	CI around geomean	0.00131	0.1	MCL/HBL	No Exceedance
AW-14	UA	A6	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 02/28/2023	8	0	CI around mean	1.64	5	MCL/HBL	No Exceedance
AW-14	UA	A6R	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 06/13/2023	9	0	CI around mean	1.78	5	MCL/HBL	No Exceedance
AW-14	UA	A6D	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 08/23/2023	10	0	CI around mean	1.91	5	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 11/03/2023	11	0	CI around mean	1.90	5	MCL/HBL	No Exceedance
AW-14	UA	A6	Selenium, total	mg/L	02/11/2021 - 02/28/2023	8	88	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-14	UA	A6R	Selenium, total	mg/L	02/11/2021 - 06/13/2023	9	89	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-14	UA	A6D	Selenium, total	mg/L	02/11/2021 - 08/23/2023	10	90	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Selenium, total	mg/L	02/11/2021 - 11/03/2023	11	91	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-14	UA	A6	Thallium, total	mg/L	02/11/2021 - 02/28/2023	8	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-14	UA	A6R	Thallium, total	mg/L	02/11/2021 - 06/13/2023	9	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-14	UA	A6D	Thallium, total	mg/L	02/11/2021 - 08/23/2023	10	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-14	UA	A6DR	Thallium, total	mg/L	02/11/2021 - 11/03/2023	11	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-15	UA	A6	Antimony, total	mg/L	02/12/2021 - 02/27/2023	6	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-15	UA	A6R	Antimony, total	mg/L	02/12/2021 - 06/12/2023	7	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-15	UA	A6D	Antimony, total	mg/L	02/12/2021 - 08/23/2023	8	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Antimony, total	mg/L	02/12/2021 - 11/02/2023	9	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-15	UA	A6	Arsenic, total	mg/L	02/12/2021 - 02/27/2023	6	0	CI around mean	0.00222	0.0187	Background	No Exceedance
AW-15	UA	A6R	Arsenic, total	mg/L	02/12/2021 - 06/12/2023	7	0	CI around mean	0.00203	0.0187	Background	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-15	UA	A6D	Arsenic, total	mg/L	02/12/2021 - 08/23/2023	8	0	CI around mean	0.00175	0.0187	Background	No Exceedance
AW-15	UA	A6DR	Arsenic, total	mg/L	02/12/2021 - 11/02/2023	9	0	CI around mean	0.00172	0.0187	Background	No Exceedance
AW-15	UA	A6	Barium, total	mg/L	02/12/2021 - 02/27/2023	6	0	CI around mean	1.46	2.0	MCL/HBL	No Exceedance
AW-15	UA	A6R	Barium, total	mg/L	02/12/2021 - 06/12/2023	7	0	CI around mean	1.54	2.0	MCL/HBL	No Exceedance
AW-15	UA	A6D	Barium, total	mg/L	02/12/2021 - 08/23/2023	8	0	CI around mean	1.59	2.0	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Barium, total	mg/L	02/12/2021 - 11/02/2023	9	0	CI around mean	1.63	2.0	MCL/HBL	No Exceedance
AW-15	UA	A6	Beryllium, total	mg/L	02/12/2021 - 02/27/2023	6	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-15	UA	A6R	Beryllium, total	mg/L	02/12/2021 - 06/12/2023	7	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-15	UA	A6D	Beryllium, total	mg/L	02/12/2021 - 08/23/2023	8	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-15	UA	A6DR	Beryllium, total	mg/L	02/12/2021 - 11/02/2023	9	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-15	UA	A6	Cadmium, total	mg/L	02/12/2021 - 02/27/2023	6	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-15	UA	A6R	Cadmium, total	mg/L	02/12/2021 - 06/12/2023	7	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-15	UA	A6D	Cadmium, total	mg/L	02/12/2021 - 08/23/2023	8	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Cadmium, total	mg/L	02/12/2021 - 11/02/2023	9	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-15	UA	A6	Chromium, total	mg/L	02/12/2021 - 02/27/2023	6	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-15	UA	A6R	Chromium, total	mg/L	02/12/2021 - 06/12/2023	7	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-15	UA	A6D	Chromium, total	mg/L	02/12/2021 - 08/23/2023	8	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Chromium, total	mg/L	02/12/2021 - 11/02/2023	9	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-15	UA	A6	Cobalt, total	mg/L	02/12/2021 - 02/27/2023	6	83	CI around median (Last Sample, n<7)	0.002	0.006	MCL/HBL	No Exceedance
AW-15	UA	A6R	Cobalt, total	mg/L	02/12/2021 - 06/12/2023	7	86	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-15	UA	A6D	Cobalt, total	mg/L	02/12/2021 - 08/23/2023	8	88	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Cobalt, total	mg/L	02/12/2021 - 11/02/2023	9	89	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-15	UA	A6	Fluoride, total	mg/L	02/12/2021 - 02/27/2023	6	67	CI around median (Last Sample, n<7)	0.25	4.0	MCL/HBL	No Exceedance
AW-15	UA	A6R	Fluoride, total	mg/L	02/12/2021 - 06/12/2023	7	71	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-15	UA	A6D	Fluoride, total	mg/L	02/12/2021 - 08/23/2023	8	75	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Fluoride, total	mg/L	02/12/2021 - 11/02/2023	9	78	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-15	UA	A6	Lead, total	mg/L	02/12/2021 - 02/27/2023	6	100	All ND - Last	0.001	0.015	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-15	UA	A6R	Lead, total	mg/L	02/12/2021 - 06/12/2023	7	100	All ND - Last	0.001	0.015	MCL/HBL	No Exceedance
AW-15	UA	A6D	Lead, total	mg/L	02/12/2021 - 08/23/2023	8	100	All ND - Last	0.001	0.015	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Lead, total	mg/L	02/12/2021 - 11/02/2023	9	100	All ND - Last	0.001	0.015	MCL/HBL	No Exceedance
AW-15	UA	A6	Lithium, total	mg/L	02/12/2021 - 02/27/2023	6	0	CI around mean	0.028	0.0541	Background	No Exceedance
AW-15	UA	A6R	Lithium, total	mg/L	02/12/2021 - 06/12/2023	7	0	CI around mean	0.0281	0.0541	Background	No Exceedance
AW-15	UA	A6D	Lithium, total	mg/L	02/12/2021 - 08/23/2023	8	0	CI around mean	0.0278	0.0541	Background	No Exceedance
AW-15	UA	A6DR	Lithium, total	mg/L	02/12/2021 - 11/02/2023	9	0	CI around mean	0.0279	0.0541	Background	No Exceedance
AW-15	UA	A6	Mercury, total	mg/L	02/12/2021 - 02/27/2023	6	83	CI around median (Last Sample, n<7)	0.00021	0.002	MCL/HBL	No Exceedance
AW-15	UA	A6R	Mercury, total	mg/L	02/12/2021 - 06/12/2023	7	86	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-15	UA	A6D	Mercury, total	mg/L	02/12/2021 - 08/23/2023	8	88	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Mercury, total	mg/L	02/12/2021 - 11/02/2023	9	89	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-15	UA	A6	Molybdenum, total	mg/L	02/12/2021 - 02/27/2023	6	67	CI around median (Last Sample, n<7)	0.001	0.1	MCL/HBL	No Exceedance
AW-15	UA	A6R	Molybdenum, total	mg/L	02/12/2021 - 06/12/2023	7	71	CI around median	0.001	0.1	MCL/HBL	No Exceedance
AW-15	UA	A6D	Molybdenum, total	mg/L	02/12/2021 - 08/23/2023	8	75	CI around median	0.001	0.1	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Molybdenum, total	mg/L	02/12/2021 - 11/02/2023	9	78	CI around median	0.001	0.1	MCL/HBL	No Exceedance
AW-15	UA	A6	Radium 226 + Radium 228, total	pCi/L	02/12/2021 - 02/27/2023	6	0	CI around mean	1.50	5	MCL/HBL	No Exceedance
AW-15	UA	A6R	Radium 226 + Radium 228, total	pCi/L	02/12/2021 - 06/12/2023	7	0	CI around mean	2.01	5	MCL/HBL	No Exceedance
AW-15	UA	A6D	Radium 226 + Radium 228, total	pCi/L	02/12/2021 - 08/23/2023	8	0	CI around mean	2.58	5	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	02/12/2021 - 11/02/2023	9	0	CI around mean	2.97	5	MCL/HBL	No Exceedance
AW-15	UA	A6	Selenium, total	mg/L	02/12/2021 - 02/27/2023	6	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-15	UA	A6R	Selenium, total	mg/L	02/12/2021 - 06/12/2023	7	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-15	UA	A6D	Selenium, total	mg/L	02/12/2021 - 08/23/2023	8	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Selenium, total	mg/L	02/12/2021 - 11/02/2023	9	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-15	UA	A6	Thallium, total	mg/L	02/12/2021 - 02/27/2023	6	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-15	UA	A6R	Thallium, total	mg/L	02/12/2021 - 06/12/2023	7	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-15	UA	A6D	Thallium, total	mg/L	02/12/2021 - 08/23/2023	8	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-15	UA	A6DR	Thallium, total	mg/L	02/12/2021 - 11/02/2023	9	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-15S	PMP	A6	Antimony, total	mg/L	02/12/2021 - 02/27/2023	9	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Antimony, total	mg/L	02/12/2021 - 06/12/2023	10	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Antimony, total	mg/L	02/12/2021 - 08/23/2023	11	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Antimony, total	mg/L	02/12/2021 - 11/02/2023	12	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Arsenic, total	mg/L	02/12/2021 - 02/27/2023	9	44	CI around median	0.001	0.0187	Background	No Exceedance
AW-15S	PMP	A6R	Arsenic, total	mg/L	02/12/2021 - 06/12/2023	10	50	CI around median	0.001	0.0187	Background	No Exceedance
AW-15S	PMP	A6D	Arsenic, total	mg/L	02/12/2021 - 08/23/2023	11	55	CI around median	0.001	0.0187	Background	No Exceedance
AW-15S	PMP	A6DR	Arsenic, total	mg/L	02/12/2021 - 11/02/2023	12	58	CI around median	0.001	0.0187	Background	No Exceedance
AW-15S	PMP	A6	Barium, total	mg/L	02/12/2021 - 02/27/2023	9	0	CI around median	0.093	2.0	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Barium, total	mg/L	02/12/2021 - 06/12/2023	10	0	CB around T-S line	-0.528	2.0	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Barium, total	mg/L	02/12/2021 - 08/23/2023	11	0	CB around T-S line	-0.232	2.0	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Barium, total	mg/L	02/12/2021 - 11/02/2023	12	0	CB around T-S line	-0.0761	2.0	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Beryllium, total	mg/L	02/12/2021 - 02/27/2023	9	89	CI around median	0.001	0.0140	Background	No Exceedance
AW-15S	PMP	A6R	Beryllium, total	mg/L	02/12/2021 - 06/12/2023	10	90	CI around median	0.001	0.0140	Background	No Exceedance
AW-15S	PMP	A6D	Beryllium, total	mg/L	02/12/2021 - 08/23/2023	11	91	CI around median	0.001	0.0140	Background	No Exceedance
AW-15S	PMP	A6DR	Beryllium, total	mg/L	02/12/2021 - 11/02/2023	12	92	CI around median	0.001	0.0140	Background	No Exceedance
AW-15S	PMP	A6	Cadmium, total	mg/L	02/12/2021 - 02/27/2023	9	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Cadmium, total	mg/L	02/12/2021 - 06/12/2023	10	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Cadmium, total	mg/L	02/12/2021 - 08/23/2023	11	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Cadmium, total	mg/L	02/12/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Chromium, total	mg/L	02/12/2021 - 02/27/2023	9	89	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Chromium, total	mg/L	02/12/2021 - 06/12/2023	10	90	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Chromium, total	mg/L	02/12/2021 - 08/23/2023	11	91	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Chromium, total	mg/L	02/12/2021 - 11/02/2023	12	92	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Cobalt, total	mg/L	02/12/2021 - 02/27/2023	9	89	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Cobalt, total	mg/L	02/12/2021 - 06/12/2023	10	90	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Cobalt, total	mg/L	02/12/2021 - 08/23/2023	11	91	CI around median	0.002	0.006	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT
ASH POND
BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-15S	PMP	A6DR	Cobalt, total	mg/L	02/12/2021 - 11/02/2023	12	92	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Fluoride, total	mg/L	02/12/2021 - 02/27/2023	9	33	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Fluoride, total	mg/L	02/12/2021 - 06/12/2023	10	40	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Fluoride, total	mg/L	02/12/2021 - 08/23/2023	11	36	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Fluoride, total	mg/L	02/12/2021 - 11/02/2023	12	33	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Lead, total	mg/L	02/12/2021 - 02/27/2023	9	78	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Lead, total	mg/L	02/12/2021 - 06/12/2023	10	80	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Lead, total	mg/L	02/12/2021 - 08/23/2023	11	82	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Lead, total	mg/L	02/12/2021 - 11/02/2023	12	83	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Lithium, total	mg/L	02/12/2021 - 02/27/2023	9	78	CI around median	0.02	0.0541	Background	No Exceedance
AW-15S	PMP	A6R	Lithium, total	mg/L	02/12/2021 - 06/12/2023	10	80	CI around median	0.02	0.0541	Background	No Exceedance
AW-15S	PMP	A6D	Lithium, total	mg/L	02/12/2021 - 08/23/2023	11	82	CI around median	0.02	0.0541	Background	No Exceedance
AW-15S	PMP	A6DR	Lithium, total	mg/L	02/12/2021 - 11/02/2023	12	83	CI around median	0.02	0.0541	Background	No Exceedance
AW-15S	PMP	A6	Mercury, total	mg/L	02/12/2021 - 02/27/2023	9	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Mercury, total	mg/L	02/12/2021 - 06/12/2023	10	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Mercury, total	mg/L	02/12/2021 - 08/23/2023	11	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Mercury, total	mg/L	02/12/2021 - 11/02/2023	12	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Molybdenum, total	mg/L	02/12/2021 - 02/27/2023	9	0	CB around linear reg	0.00129	0.1	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Molybdenum, total	mg/L	02/12/2021 - 06/12/2023	10	0	CB around linear reg	0.00181	0.1	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Molybdenum, total	mg/L	02/12/2021 - 08/23/2023	11	0	CB around linear reg	0.00194	0.1	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Molybdenum, total	mg/L	02/12/2021 - 11/02/2023	12	0	CB around linear reg	0.00218	0.1	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Radium 226 + Radium 228, total	pCi/L	02/12/2021 - 02/27/2023	8	0	CI around mean	0.196	5	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Radium 226 + Radium 228, total	pCi/L	02/12/2021 - 06/12/2023	9	0	CI around mean	0.184	5	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Radium 226 + Radium 228, total	pCi/L	02/12/2021 - 08/23/2023	10	0	CI around mean	0.278	5	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Radium 226 + Radium 228, total	pCi/L	02/12/2021 - 11/02/2023	11	0	CI around mean	0.360	5	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Selenium, total	mg/L	02/12/2021 - 02/27/2023	9	44	CB around linear reg	-0.000682	0.05	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Selenium, total	mg/L	02/12/2021 - 06/12/2023	10	40	CI around mean	0.000931	0.05	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-15S	PMP	A6D	Selenium, total	mg/L	02/12/2021 - 08/23/2023	11	45	CI around geomean	0.000977	0.05	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Selenium, total	mg/L	02/12/2021 - 11/02/2023	12	42	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-15S	PMP	A6	Thallium, total	mg/L	02/12/2021 - 02/27/2023	9	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-15S	PMP	A6R	Thallium, total	mg/L	02/12/2021 - 06/12/2023	10	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-15S	PMP	A6D	Thallium, total	mg/L	02/12/2021 - 08/23/2023	11	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-15S	PMP	A6DR	Thallium, total	mg/L	02/12/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-16	UA	A6	Antimony, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-16	UA	A6R	Antimony, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-16	UA	A6D	Antimony, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Antimony, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-16	UA	A6	Arsenic, total	mg/L	02/11/2021 - 02/28/2023	9	11	CB around linear reg	0.000863	0.0187	Background	No Exceedance
AW-16	UA	A6R	Arsenic, total	mg/L	02/11/2021 - 06/12/2023	10	10	CB around linear reg	0.000917	0.0187	Background	No Exceedance
AW-16	UA	A6D	Arsenic, total	mg/L	02/11/2021 - 08/21/2023	11	18	CI around mean	0.00119	0.0187	Background	No Exceedance
AW-16	UA	A6DR	Arsenic, total	mg/L	02/11/2021 - 11/02/2023	12	17	CI around mean	0.00119	0.0187	Background	No Exceedance
AW-16	UA	A6	Barium, total	mg/L	02/11/2021 - 02/28/2023	9	0	CI around mean	1.17	2.0	MCL/HBL	No Exceedance
AW-16	UA	A6R	Barium, total	mg/L	02/11/2021 - 06/12/2023	10	0	CI around mean	1.19	2.0	MCL/HBL	No Exceedance
AW-16	UA	A6D	Barium, total	mg/L	02/11/2021 - 08/21/2023	11	0	CI around mean	1.17	2.0	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Barium, total	mg/L	02/11/2021 - 11/02/2023	12	0	CI around mean	1.16	2.0	MCL/HBL	No Exceedance
AW-16	UA	A6	Beryllium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-16	UA	A6R	Beryllium, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-16	UA	A6D	Beryllium, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-16	UA	A6DR	Beryllium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-16	UA	A6	Cadmium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-16	UA	A6R	Cadmium, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-16	UA	A6D	Cadmium, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Cadmium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-16	UA	A6	Chromium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-16	UA	A6R	Chromium, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-16	UA	A6D	Chromium, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Chromium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-16	UA	A6	Cobalt, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.002	0.006	MCL/HBL	No Exceedance
AW-16	UA	A6R	Cobalt, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.002	0.006	MCL/HBL	No Exceedance
AW-16	UA	A6D	Cobalt, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.002	0.006	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Cobalt, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.002	0.006	MCL/HBL	No Exceedance
AW-16	UA	A6	Fluoride, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.25	4.0	MCL/HBL	No Exceedance
AW-16	UA	A6R	Fluoride, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.25	4.0	MCL/HBL	No Exceedance
AW-16	UA	A6D	Fluoride, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.25	4.0	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Fluoride, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.25	4.0	MCL/HBL	No Exceedance
AW-16	UA	A6	Lead, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.015	MCL/HBL	No Exceedance
AW-16	UA	A6R	Lead, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.001	0.015	MCL/HBL	No Exceedance
AW-16	UA	A6D	Lead, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.015	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Lead, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.015	MCL/HBL	No Exceedance
AW-16	UA	A6	Lithium, total	mg/L	02/11/2021 - 02/28/2023	9	0	CI around median	0.036	0.0541	Background	No Exceedance
AW-16	UA	A6R	Lithium, total	mg/L	02/11/2021 - 06/12/2023	10	0	CI around median	0.036	0.0541	Background	No Exceedance
AW-16	UA	A6D	Lithium, total	mg/L	02/11/2021 - 08/21/2023	11	0	CI around median	0.032	0.0541	Background	No Exceedance
AW-16	UA	A6DR	Lithium, total	mg/L	02/11/2021 - 11/02/2023	12	0	CB around T-S line	0.00737	0.0541	Background	No Exceedance
AW-16	UA	A6	Mercury, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-16	UA	A6R	Mercury, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-16	UA	A6D	Mercury, total	mg/L	02/11/2021 - 08/21/2023	11	91	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Mercury, total	mg/L	02/11/2021 - 11/02/2023	12	92	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-16	UA	A6	Molybdenum, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.1	MCL/HBL	No Exceedance
AW-16	UA	A6R	Molybdenum, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.001	0.1	MCL/HBL	No Exceedance
AW-16	UA	A6D	Molybdenum, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.1	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Molybdenum, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.1	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-16	UA	A6	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 02/28/2023	9	0	CI around mean	4.11	5	MCL/HBL	No Exceedance
AW-16	UA	A6R	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 06/12/2023	10	0	CI around mean	4.02	5	MCL/HBL	No Exceedance
AW-16	UA	A6D	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 08/21/2023	11	0	CI around mean	3.99	5	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 11/02/2023	12	0	CB around linear reg	1.74	5	MCL/HBL	No Exceedance
AW-16	UA	A6	Selenium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-16	UA	A6R	Selenium, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-16	UA	A6D	Selenium, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Selenium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-16	UA	A6	Thallium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-16	UA	A6R	Thallium, total	mg/L	02/11/2021 - 06/12/2023	10	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-16	UA	A6D	Thallium, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-16	UA	A6DR	Thallium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-17	UA	A6	Antimony, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-17	UA	A6R	Antimony, total	mg/L	02/11/2021 - 06/13/2023	10	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-17	UA	A6D	Antimony, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Antimony, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-17	UA	A6	Arsenic, total	mg/L	02/11/2021 - 02/28/2023	9	0	CI around mean	0.00495	0.0187	Background	No Exceedance
AW-17	UA	A6R	Arsenic, total	mg/L	02/11/2021 - 06/13/2023	10	0	CI around mean	0.00485	0.0187	Background	No Exceedance
AW-17	UA	A6D	Arsenic, total	mg/L	02/11/2021 - 08/21/2023	11	0	CI around mean	0.00449	0.0187	Background	No Exceedance
AW-17	UA	A6DR	Arsenic, total	mg/L	02/11/2021 - 11/01/2023	12	0	CB around linear reg	0.00223	0.0187	Background	No Exceedance
AW-17	UA	A6	Barium, total	mg/L	02/11/2021 - 02/28/2023	9	0	CI around mean	1.04	2.0	MCL/HBL	No Exceedance
AW-17	UA	A6R	Barium, total	mg/L	02/11/2021 - 06/13/2023	10	0	CI around mean	1.05	2.0	MCL/HBL	No Exceedance
AW-17	UA	A6D	Barium, total	mg/L	02/11/2021 - 08/21/2023	11	0	CI around mean	1.04	2.0	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Barium, total	mg/L	02/11/2021 - 11/01/2023	12	0	CI around mean	1.03	2.0	MCL/HBL	No Exceedance
AW-17	UA	A6	Beryllium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-17	UA	A6R	Beryllium, total	mg/L	02/11/2021 - 06/13/2023	10	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-17	UA	A6D	Beryllium, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.0140	Background	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-17	UA	A6DR	Beryllium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-17	UA	A6	Cadmium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-17	UA	A6R	Cadmium, total	mg/L	02/11/2021 - 06/13/2023	10	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-17	UA	A6D	Cadmium, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Cadmium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-17	UA	A6	Chromium, total	mg/L	02/11/2021 - 02/28/2023	9	56	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-17	UA	A6R	Chromium, total	mg/L	02/11/2021 - 06/13/2023	10	60	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-17	UA	A6D	Chromium, total	mg/L	02/11/2021 - 08/21/2023	11	64	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Chromium, total	mg/L	02/11/2021 - 11/01/2023	12	67	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-17	UA	A6	Cobalt, total	mg/L	02/11/2021 - 02/28/2023	9	0	CI around mean	0.00189	0.006	MCL/HBL	No Exceedance
AW-17	UA	A6R	Cobalt, total	mg/L	02/11/2021 - 06/13/2023	10	0	CI around mean	0.00197	0.006	MCL/HBL	No Exceedance
AW-17	UA	A6D	Cobalt, total	mg/L	02/11/2021 - 08/21/2023	11	0	CI around geomean	0.00214	0.006	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Cobalt, total	mg/L	02/11/2021 - 11/01/2023	12	0	CI around median	0.0022	0.006	MCL/HBL	No Exceedance
AW-17	UA	A6	Fluoride, total	mg/L	02/11/2021 - 02/28/2023	9	89	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-17	UA	A6R	Fluoride, total	mg/L	02/11/2021 - 06/13/2023	10	90	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-17	UA	A6D	Fluoride, total	mg/L	02/11/2021 - 08/21/2023	11	91	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Fluoride, total	mg/L	02/11/2021 - 11/01/2023	12	92	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-17	UA	A6	Lead, total	mg/L	02/11/2021 - 02/28/2023	9	56	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-17	UA	A6R	Lead, total	mg/L	02/11/2021 - 06/13/2023	10	60	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-17	UA	A6D	Lead, total	mg/L	02/11/2021 - 08/21/2023	11	64	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Lead, total	mg/L	02/11/2021 - 11/01/2023	12	67	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-17	UA	A6	Lithium, total	mg/L	02/11/2021 - 02/28/2023	9	0	CI around mean	0.0346	0.0541	Background	No Exceedance
AW-17	UA	A6R	Lithium, total	mg/L	02/11/2021 - 06/13/2023	10	0	CI around mean	0.0336	0.0541	Background	No Exceedance
AW-17	UA	A6D	Lithium, total	mg/L	02/11/2021 - 08/21/2023	11	0	CB around linear reg	-0.00453	0.0541	Background	No Exceedance
AW-17	UA	A6DR	Lithium, total	mg/L	02/11/2021 - 11/01/2023	12	0	CB around linear reg	0.000638	0.0541	Background	No Exceedance
AW-17	UA	A6	Mercury, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-17	UA	A6R	Mercury, total	mg/L	02/11/2021 - 06/13/2023	10	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-17	UA	A6D	Mercury, total	mg/L	02/11/2021 - 08/21/2023	11	91	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Mercury, total	mg/L	02/11/2021 - 11/01/2023	12	92	CI around median	0.0002	0.002	MCL/HBL	No Exceedance
AW-17	UA	A6	Molybdenum, total	mg/L	02/11/2021 - 02/28/2023	9	22	CI around mean	0.00104	0.1	MCL/HBL	No Exceedance
AW-17	UA	A6R	Molybdenum, total	mg/L	02/11/2021 - 06/13/2023	10	30	CI around mean	0.00102	0.1	MCL/HBL	No Exceedance
AW-17	UA	A6D	Molybdenum, total	mg/L	02/11/2021 - 08/21/2023	11	36	CB around linear reg	-0.000279	0.1	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Molybdenum, total	mg/L	02/11/2021 - 11/01/2023	12	42	CB around linear reg	-9.68e-05	0.1	MCL/HBL	No Exceedance
AW-17	UA	A6	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 02/28/2023	9	0	CI around mean	2.53	5	MCL/HBL	No Exceedance
AW-17	UA	A6R	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 06/13/2023	10	0	CI around mean	2.59	5	MCL/HBL	No Exceedance
AW-17	UA	A6D	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 08/21/2023	11	0	CI around mean	2.59	5	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 11/01/2023	12	0	CI around mean	2.61	5	MCL/HBL	No Exceedance
AW-17	UA	A6	Selenium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-17	UA	A6R	Selenium, total	mg/L	02/11/2021 - 06/13/2023	10	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-17	UA	A6D	Selenium, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Selenium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-17	UA	A6	Thallium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-17	UA	A6R	Thallium, total	mg/L	02/11/2021 - 06/13/2023	10	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-17	UA	A6D	Thallium, total	mg/L	02/11/2021 - 08/21/2023	11	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-17	UA	A6DR	Thallium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-18	UA	A6	Antimony, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-18	UA	A6R	Antimony, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-18	UA	A6D	Antimony, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Antimony, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-18	UA	A6	Arsenic, total	mg/L	02/11/2021 - 02/27/2023	9	0	CI around mean	0.00339	0.0187	Background	No Exceedance
AW-18	UA	A6R	Arsenic, total	mg/L	02/11/2021 - 06/14/2023	10	0	CI around mean	0.00334	0.0187	Background	No Exceedance
AW-18	UA	A6D	Arsenic, total	mg/L	02/11/2021 - 08/22/2023	11	0	CI around mean	0.00319	0.0187	Background	No Exceedance
AW-18	UA	A6DR	Arsenic, total	mg/L	02/11/2021 - 11/01/2023	12	0	CI around mean	0.0033	0.0187	Background	No Exceedance
AW-18	UA	A6	Barium, total	mg/L	02/11/2021 - 02/27/2023	9	0	CB around linear reg	1.15	2.0	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-18	UA	A6R	Barium, total	mg/L	02/11/2021 - 06/14/2023	10	0	CB around linear reg	0.962	2.0	MCL/HBL	No Exceedance
AW-18	UA	A6D	Barium, total	mg/L	02/11/2021 - 08/22/2023	11	0	CB around linear reg	0.983	2.0	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Barium, total	mg/L	02/11/2021 - 11/01/2023	12	0	CB around linear reg	1.1	2.0	MCL/HBL	No Exceedance
AW-18	UA	A6	Beryllium, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-18	UA	A6R	Beryllium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-18	UA	A6D	Beryllium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-18	UA	A6DR	Beryllium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-18	UA	A6	Cadmium, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-18	UA	A6R	Cadmium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-18	UA	A6D	Cadmium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Cadmium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-18	UA	A6	Chromium, total	mg/L	02/11/2021 - 02/27/2023	9	89	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-18	UA	A6R	Chromium, total	mg/L	02/11/2021 - 06/14/2023	10	90	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-18	UA	A6D	Chromium, total	mg/L	02/11/2021 - 08/22/2023	11	91	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Chromium, total	mg/L	02/11/2021 - 11/01/2023	12	92	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-18	UA	A6	Cobalt, total	mg/L	02/11/2021 - 02/27/2023	9	67	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-18	UA	A6R	Cobalt, total	mg/L	02/11/2021 - 06/14/2023	10	70	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-18	UA	A6D	Cobalt, total	mg/L	02/11/2021 - 08/22/2023	11	73	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Cobalt, total	mg/L	02/11/2021 - 11/01/2023	12	75	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-18	UA	A6	Fluoride, total	mg/L	02/11/2021 - 02/27/2023	9	33	CI around geomean	0.232	4.0	MCL/HBL	No Exceedance
AW-18	UA	A6R	Fluoride, total	mg/L	02/11/2021 - 06/14/2023	10	40	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-18	UA	A6D	Fluoride, total	mg/L	02/11/2021 - 08/22/2023	11	45	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Fluoride, total	mg/L	02/11/2021 - 11/01/2023	12	50	CI around median	0.25	4.0	MCL/HBL	No Exceedance
AW-18	UA	A6	Lead, total	mg/L	02/11/2021 - 02/27/2023	9	89	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-18	UA	A6R	Lead, total	mg/L	02/11/2021 - 06/14/2023	10	80	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-18	UA	A6D	Lead, total	mg/L	02/11/2021 - 08/22/2023	11	82	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Lead, total	mg/L	02/11/2021 - 11/01/2023	12	75	CI around median	0.001	0.015	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT
ASH POND
BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-18	UA	A6	Lithium, total	mg/L	02/11/2021 - 02/27/2023	9	0	CI around mean	0.0427	0.0541	Background	No Exceedance
AW-18	UA	A6R	Lithium, total	mg/L	02/11/2021 - 06/14/2023	10	0	CB around linear reg	-0.0455	0.0541	Background	No Exceedance
AW-18	UA	A6D	Lithium, total	mg/L	02/11/2021 - 08/22/2023	11	0	CB around linear reg	-0.032	0.0541	Background	No Exceedance
AW-18	UA	A6DR	Lithium, total	mg/L	02/11/2021 - 11/01/2023	12	0	CB around linear reg	-0.0246	0.0541	Background	No Exceedance
AW-18	UA	A6	Mercury, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-18	UA	A6R	Mercury, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-18	UA	A6D	Mercury, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Mercury, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-18	UA	A6	Molybdenum, total	mg/L	02/11/2021 - 02/27/2023	9	0	CB around linear reg	-0.029	0.1	MCL/HBL	No Exceedance
AW-18	UA	A6R	Molybdenum, total	mg/L	02/11/2021 - 06/14/2023	10	0	CB around linear reg	-0.0197	0.1	MCL/HBL	No Exceedance
AW-18	UA	A6D	Molybdenum, total	mg/L	02/11/2021 - 08/22/2023	11	0	CB around linear reg	-0.0148	0.1	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Molybdenum, total	mg/L	02/11/2021 - 11/01/2023	12	0	CB around linear reg	-0.0127	0.1	MCL/HBL	No Exceedance
AW-18	UA	A6	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 02/27/2023	9	0	CI around mean	1.95	5	MCL/HBL	No Exceedance
AW-18	UA	A6R	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 06/14/2023	10	0	CI around mean	2.08	5	MCL/HBL	No Exceedance
AW-18	UA	A6D	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 08/22/2023	11	0	CI around mean	2.11	5	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 11/01/2023	12	0	CI around mean	2.27	5	MCL/HBL	No Exceedance
AW-18	UA	A6	Selenium, total	mg/L	02/11/2021 - 02/27/2023	9	89	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-18	UA	A6R	Selenium, total	mg/L	02/11/2021 - 06/14/2023	10	90	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-18	UA	A6D	Selenium, total	mg/L	02/11/2021 - 08/22/2023	11	91	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Selenium, total	mg/L	02/11/2021 - 11/01/2023	12	92	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-18	UA	A6	Thallium, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-18	UA	A6R	Thallium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-18	UA	A6D	Thallium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-18	UA	A6DR	Thallium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-19	UA	A6	Antimony, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-19	UA	A6R	Antimony, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-19	UA	A6D	Antimony, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-19	UA	A6DR	Antimony, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-19	UA	A6	Arsenic, total	mg/L	02/11/2021 - 02/27/2023	9	0	CI around mean	0.0107	0.0187	Background	No Exceedance
AW-19	UA	A6R	Arsenic, total	mg/L	02/11/2021 - 06/14/2023	10	0	CI around mean	0.0112	0.0187	Background	No Exceedance
AW-19	UA	A6D	Arsenic, total	mg/L	02/11/2021 - 08/22/2023	11	0	CI around mean	0.0113	0.0187	Background	No Exceedance
AW-19	UA	A6DR	Arsenic, total	mg/L	02/11/2021 - 11/01/2023	12	0	CI around mean	0.0111	0.0187	Background	No Exceedance
AW-19	UA	A6	Barium, total	mg/L	02/11/2021 - 02/27/2023	9	0	CI around median	0.18	2.0	MCL/HBL	No Exceedance
AW-19	UA	A6R	Barium, total	mg/L	02/11/2021 - 06/14/2023	10	0	CI around median	0.18	2.0	MCL/HBL	No Exceedance
AW-19	UA	A6D	Barium, total	mg/L	02/11/2021 - 08/22/2023	11	0	CI around median	0.18	2.0	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Barium, total	mg/L	02/11/2021 - 11/01/2023	12	0	CI around median	0.18	2.0	MCL/HBL	No Exceedance
AW-19	UA	A6	Beryllium, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-19	UA	A6R	Beryllium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-19	UA	A6D	Beryllium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-19	UA	A6DR	Beryllium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-19	UA	A6	Cadmium, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-19	UA	A6R	Cadmium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-19	UA	A6D	Cadmium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Cadmium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-19	UA	A6	Chromium, total	mg/L	02/11/2021 - 02/27/2023	9	67	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-19	UA	A6R	Chromium, total	mg/L	02/11/2021 - 06/14/2023	10	70	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-19	UA	A6D	Chromium, total	mg/L	02/11/2021 - 08/22/2023	11	73	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Chromium, total	mg/L	02/11/2021 - 11/01/2023	12	75	CI around median	0.004	0.1	MCL/HBL	No Exceedance
AW-19	UA	A6	Cobalt, total	mg/L	02/11/2021 - 02/27/2023	9	67	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-19	UA	A6R	Cobalt, total	mg/L	02/11/2021 - 06/14/2023	10	70	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-19	UA	A6D	Cobalt, total	mg/L	02/11/2021 - 08/22/2023	11	73	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Cobalt, total	mg/L	02/11/2021 - 11/01/2023	12	75	CI around median	0.002	0.006	MCL/HBL	No Exceedance
AW-19	UA	A6	Fluoride, total	mg/L	02/11/2021 - 02/27/2023	9	0	CI around mean	0.29	4.0	MCL/HBL	No Exceedance
AW-19	UA	A6R	Fluoride, total	mg/L	02/11/2021 - 06/14/2023	10	0	CI around mean	0.284	4.0	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT
ASH POND
BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-19	UA	A6D	Fluoride, total	mg/L	02/11/2021 - 08/22/2023	11	0	CI around mean	0.288	4.0	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Fluoride, total	mg/L	02/11/2021 - 11/01/2023	12	8.3	CB around linear reg	0.116	4.0	MCL/HBL	No Exceedance
AW-19	UA	A6	Lead, total	mg/L	02/11/2021 - 02/27/2023	9	44	CI around geomean	0.000933	0.015	MCL/HBL	No Exceedance
AW-19	UA	A6R	Lead, total	mg/L	02/11/2021 - 06/14/2023	10	40	CI around geomean	0.00101	0.015	MCL/HBL	No Exceedance
AW-19	UA	A6D	Lead, total	mg/L	02/11/2021 - 08/22/2023	11	45	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Lead, total	mg/L	02/11/2021 - 11/01/2023	12	50	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-19	UA	A6	Lithium, total	mg/L	02/11/2021 - 02/27/2023	9	56	CI around median	0.02	0.0541	Background	No Exceedance
AW-19	UA	A6R	Lithium, total	mg/L	02/11/2021 - 06/14/2023	10	60	CI around median	0.02	0.0541	Background	No Exceedance
AW-19	UA	A6D	Lithium, total	mg/L	02/11/2021 - 08/22/2023	11	64	CI around median	0.02	0.0541	Background	No Exceedance
AW-19	UA	A6DR	Lithium, total	mg/L	02/11/2021 - 11/01/2023	12	67	CI around median	0.02	0.0541	Background	No Exceedance
AW-19	UA	A6	Mercury, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-19	UA	A6R	Mercury, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-19	UA	A6D	Mercury, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Mercury, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-19	UA	A6	Molybdenum, total	mg/L	02/11/2021 - 02/27/2023	9	0	CI around geomean	0.00318	0.1	MCL/HBL	No Exceedance
AW-19	UA	A6R	Molybdenum, total	mg/L	02/11/2021 - 06/14/2023	10	0	CI around geomean	0.00327	0.1	MCL/HBL	No Exceedance
AW-19	UA	A6D	Molybdenum, total	mg/L	02/11/2021 - 08/22/2023	11	0	CI around median	0.0034	0.1	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Molybdenum, total	mg/L	02/11/2021 - 11/01/2023	12	0	CI around median	0.0034	0.1	MCL/HBL	No Exceedance
AW-19	UA	A6	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 02/27/2023	9	0	CI around mean	0.237	5	MCL/HBL	No Exceedance
AW-19	UA	A6R	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 06/14/2023	10	0	CI around mean	0.267	5	MCL/HBL	No Exceedance
AW-19	UA	A6D	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 08/22/2023	11	0	CI around mean	0.360	5	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 11/01/2023	12	0	CI around mean	0.421	5	MCL/HBL	No Exceedance
AW-19	UA	A6	Selenium, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-19	UA	A6R	Selenium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-19	UA	A6D	Selenium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Selenium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.05	MCL/HBL	No Exceedance
AW-19	UA	A6	Thallium, total	mg/L	02/11/2021 - 02/27/2023	9	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-19	UA	A6R	Thallium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-19	UA	A6D	Thallium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-19	UA	A6DR	Thallium, total	mg/L	02/11/2021 - 11/01/2023	12	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-21	UA	A6	Antimony, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-21	UA	A6R	Antimony, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-21	UA	A6D	Antimony, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Antimony, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.003	0.006	MCL/HBL	No Exceedance
AW-21	UA	A6	Arsenic, total	mg/L	02/11/2021 - 02/28/2023	9	11	CB around linear reg	0.00141	0.0187	Background	No Exceedance
AW-21	UA	A6R	Arsenic, total	mg/L	02/11/2021 - 06/14/2023	10	10	CB around linear reg	0.00113	0.0187	Background	No Exceedance
AW-21	UA	A6D	Arsenic, total	mg/L	02/11/2021 - 08/22/2023	11	18	CI around mean	0.00102	0.0187	Background	No Exceedance
AW-21	UA	A6DR	Arsenic, total	mg/L	02/11/2021 - 11/02/2023	12	25	CI around mean	0.00101	0.0187	Background	No Exceedance
AW-21	UA	A6	Barium, total	mg/L	02/11/2021 - 02/28/2023	9	0	CI around mean	0.0625	2.0	MCL/HBL	No Exceedance
AW-21	UA	A6R	Barium, total	mg/L	02/11/2021 - 06/14/2023	10	0	CI around mean	0.0617	2.0	MCL/HBL	No Exceedance
AW-21	UA	A6D	Barium, total	mg/L	02/11/2021 - 08/22/2023	11	0	CI around mean	0.0609	2.0	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Barium, total	mg/L	02/11/2021 - 11/02/2023	12	0	CB around linear reg	0.0413	2.0	MCL/HBL	No Exceedance
AW-21	UA	A6	Beryllium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-21	UA	A6R	Beryllium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-21	UA	A6D	Beryllium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-21	UA	A6DR	Beryllium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.0140	Background	No Exceedance
AW-21	UA	A6	Cadmium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-21	UA	A6R	Cadmium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-21	UA	A6D	Cadmium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Cadmium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.005	MCL/HBL	No Exceedance
AW-21	UA	A6	Chromium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-21	UA	A6R	Chromium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-21	UA	A6D	Chromium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Chromium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.004	0.1	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-21	UA	A6	Cobalt, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.002	0.006	MCL/HBL	No Exceedance
AW-21	UA	A6R	Cobalt, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.002	0.006	MCL/HBL	No Exceedance
AW-21	UA	A6D	Cobalt, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.002	0.006	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Cobalt, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.002	0.006	MCL/HBL	No Exceedance
AW-21	UA	A6	Fluoride, total	mg/L	02/11/2021 - 02/28/2023	9	0	CI around mean	0.327	4.0	MCL/HBL	No Exceedance
AW-21	UA	A6R	Fluoride, total	mg/L	02/11/2021 - 06/14/2023	10	0	CB around linear reg	0.0598	4.0	MCL/HBL	No Exceedance
AW-21	UA	A6D	Fluoride, total	mg/L	02/11/2021 - 08/22/2023	11	0	CB around linear reg	0.107	4.0	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Fluoride, total	mg/L	02/11/2021 - 11/02/2023	12	0	CB around linear reg	0.155	4.0	MCL/HBL	No Exceedance
AW-21	UA	A6	Lead, total	mg/L	02/11/2021 - 02/28/2023	9	89	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-21	UA	A6R	Lead, total	mg/L	02/11/2021 - 06/14/2023	10	90	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-21	UA	A6D	Lead, total	mg/L	02/11/2021 - 08/22/2023	11	91	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Lead, total	mg/L	02/11/2021 - 11/02/2023	12	92	CI around median	0.001	0.015	MCL/HBL	No Exceedance
AW-21	UA	A6	Lithium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AW-21	UA	A6R	Lithium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AW-21	UA	A6D	Lithium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AW-21	UA	A6DR	Lithium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.02	0.0541	Background	No Exceedance
AW-21	UA	A6	Mercury, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-21	UA	A6R	Mercury, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-21	UA	A6D	Mercury, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Mercury, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.0002	0.002	MCL/HBL	No Exceedance
AW-21	UA	A6	Molybdenum, total	mg/L	02/11/2021 - 02/28/2023	9	0	CI around mean	0.0155	0.1	MCL/HBL	No Exceedance
AW-21	UA	A6R	Molybdenum, total	mg/L	02/11/2021 - 06/14/2023	10	0	CI around mean	0.0157	0.1	MCL/HBL	No Exceedance
AW-21	UA	A6D	Molybdenum, total	mg/L	02/11/2021 - 08/22/2023	11	0	CI around mean	0.0162	0.1	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Molybdenum, total	mg/L	02/11/2021 - 11/02/2023	12	0	CI around mean	0.0169	0.1	MCL/HBL	No Exceedance
AW-21	UA	A6	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 02/28/2023	9	0	CI around mean	0.355	5	MCL/HBL	No Exceedance
AW-21	UA	A6R	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 06/14/2023	10	0	CI around mean	0.345	5	MCL/HBL	No Exceedance
AW-21	UA	A6D	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 08/22/2023	11	0	CI around mean	0.391	5	MCL/HBL	No Exceedance

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT
 ASH POND
 BARTONVILLE, IL

Well ID	HSU	Event ID	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	SSL Type
AW-21	UA	A6DR	Radium 226 + Radium 228, total	pCi/L	02/11/2021 - 11/02/2023	12	0	CI around mean	0.428	5	MCL/HBL	No Exceedance
AW-21	UA	A6	Selenium, total	mg/L	02/11/2021 - 02/28/2023	9	89	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-21	UA	A6R	Selenium, total	mg/L	02/11/2021 - 06/14/2023	10	90	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-21	UA	A6D	Selenium, total	mg/L	02/11/2021 - 08/22/2023	11	82	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Selenium, total	mg/L	02/11/2021 - 11/02/2023	12	75	CI around median	0.001	0.05	MCL/HBL	No Exceedance
AW-21	UA	A6	Thallium, total	mg/L	02/11/2021 - 02/28/2023	9	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-21	UA	A6R	Thallium, total	mg/L	02/11/2021 - 06/14/2023	10	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-21	UA	A6D	Thallium, total	mg/L	02/11/2021 - 08/22/2023	11	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance
AW-21	UA	A6DR	Thallium, total	mg/L	02/11/2021 - 11/02/2023	12	100	All ND - Last	0.001	0.002	MCL/HBL	No Exceedance

Notes:

Statistically Significant Level (SSL) Type:

No Exceedance: No exceedance of the GWPS and no resample was collected.

GWPS = Groundwater Protection Standard

GWPS Source:

Background = background concentration

MCL/HBL = maximum contaminant level/health-based level

HSU = hydrostratigraphic unit:

PMP = Potential Migration Pathway

UA = Uppermost Aquifer

ID = identification

mg/L = milligrams per liter

ND = non-detect

pCi/L = picocuries per liter

R = resample

Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result

Statistical Calculation = method used to calculate the statistical result:

All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown

CB around T-S line = Confidence band around Thiel-Sen line

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

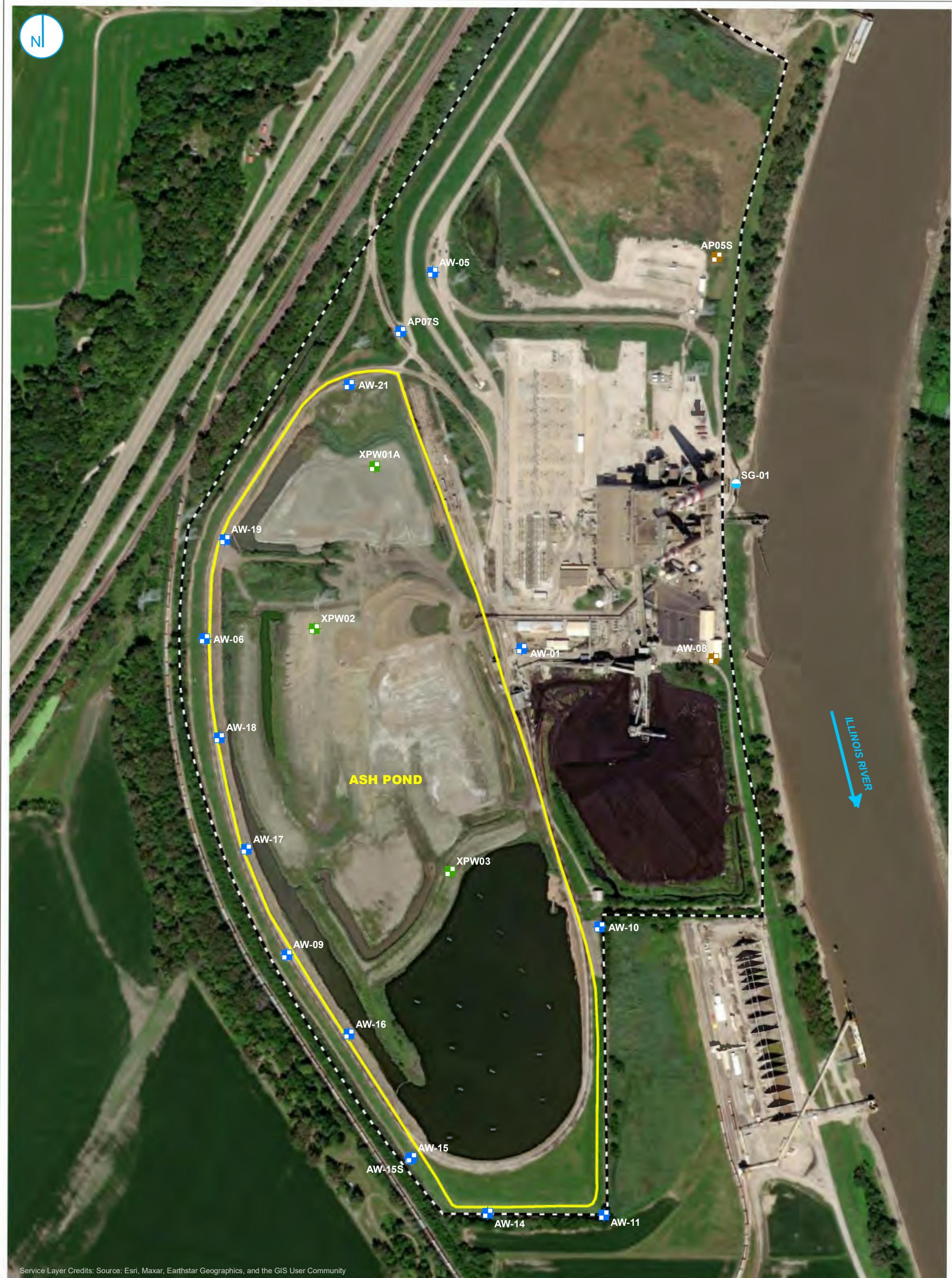
CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

Most recent sample = Result for the most recently collected sample used due to insufficient data

Statistical Result = calculated in accordance with Statistical Analysis Plan using constituent concentrations observed at monitoring well during all sampling events within the specified date range

FIGURES



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, RIVER
- REGULATED UNIT (SUBJECT UNIT)
- PROPERTY BOUNDARY

MONITORING WELL LOCATION MAP

FIGURE 1

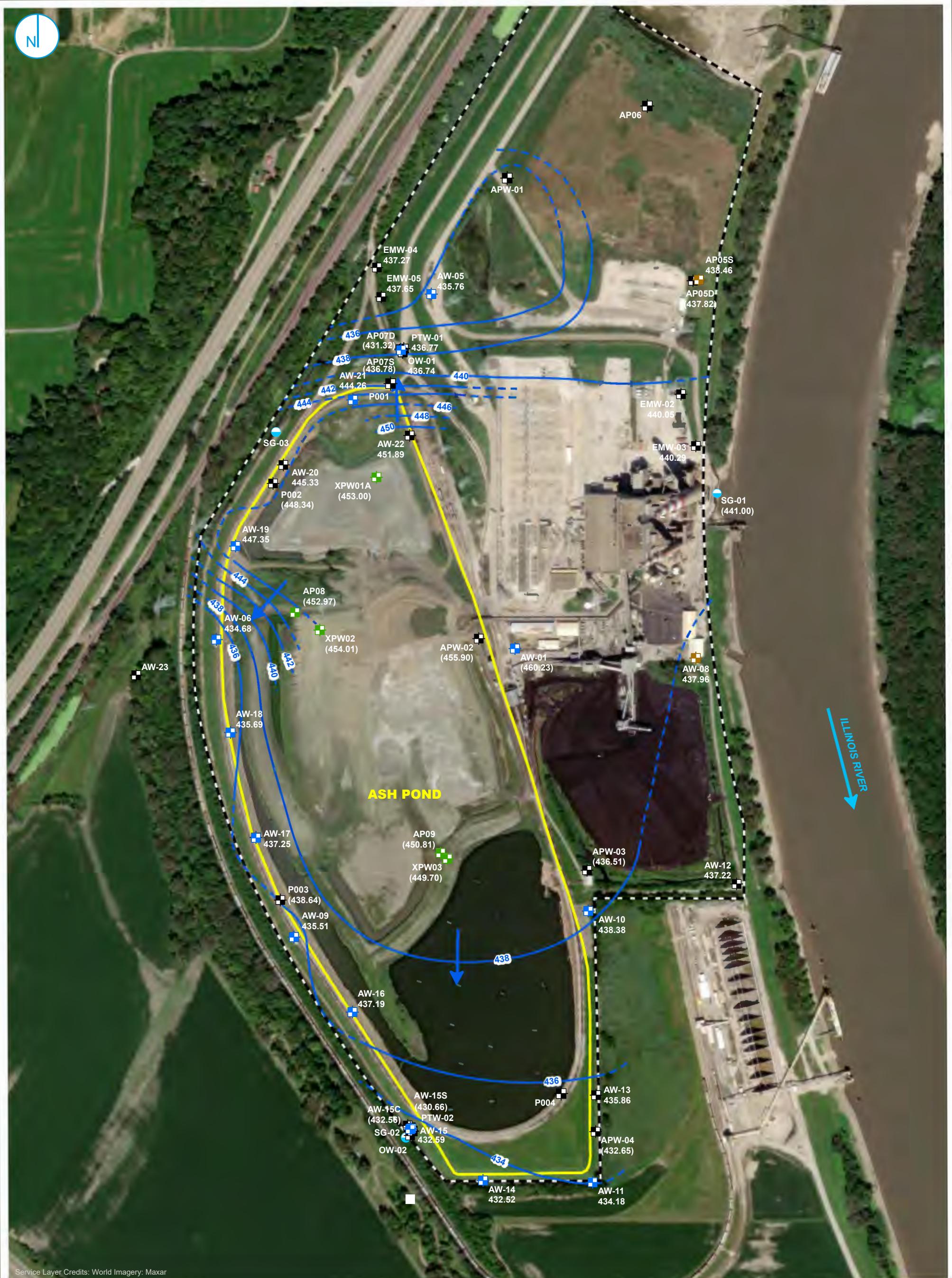
2023 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
ASH POND

EDWARDS POWER PLANT
BARTONVILLE, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

0 200 400
Feet



■ COMPLIANCE MONITORING WELL
■ BACKGROUND MONITORING WELL
■ MONITORING WELL
■ PORE WATER WELL
● STAFF GAGE, RIVER

— GROUNDWATER ELEVATION CONTOUR (2-FT CONTOUR INTERVAL, NAVD88)
— INFERRED GROUNDWATER ELEVATION CONTOUR
▲ GROUNDWATER FLOW DIRECTION
■ REGULATED UNIT (SUBJECT UNIT)
■ PROPERTY BOUNDARY

POTENSIOMETRIC SURFACE MAP FEBRUARY 27, 2023

FIGURE 2

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

ASH POND
EDWARDS POWER PLANT
BARTONVILLE, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

0 212.5 425 Feet

NOTES

- ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
- ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

RAMBOLL



Service Layer Credits: World Imagery: Maxar

- COMPLIANCE MONITORING WELL
 - BACKGROUND MONITORING WELL
 - MONITORING WELL
 - PORE WATER WELL
 - STAFF GAGE, RIVER
 - GROUNDWATER ELEVATION CONTOUR
(2-FT CONTOUR INTERVAL, NAVD88)
 - - - INFERRED GROUNDWATER ELEVATION
CONTOUR
 - GROUNDWATER FLOW DIRECTION
 - REGULATED UNIT (SUBJECT UNIT)
 - PROPERTY BOUNDARY

Notes

- NOTES**

 1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
 2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
 3. ELEVATIONS IN BRACKETS WERE OBTAINED OUTSIDE OF THE 24-HOUR PERIOD FROM INITIATION OF DEPTH TO GROUNDWATER MEASUREMENTS

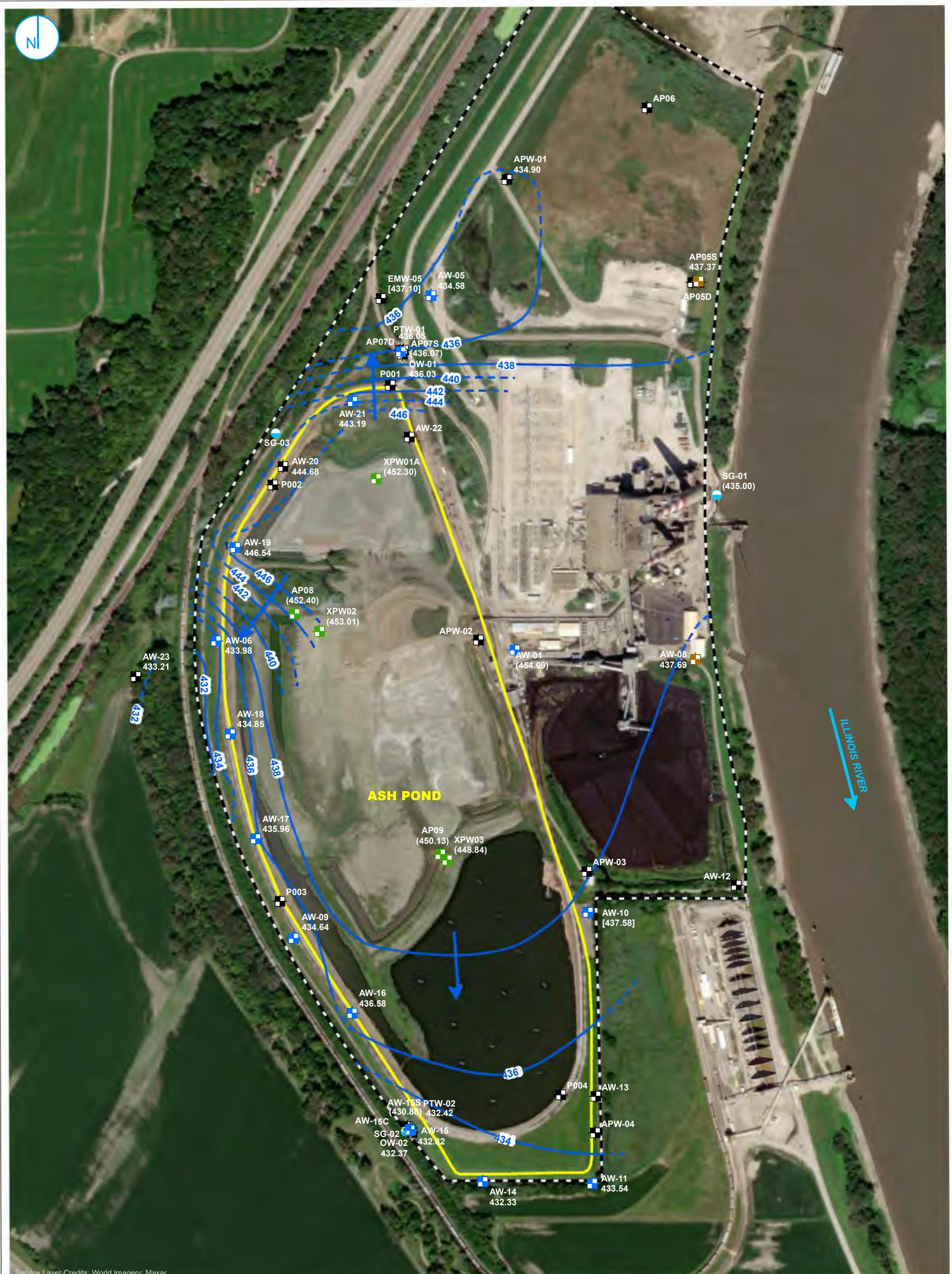
POTENTIOMETRIC SURFACE MAP

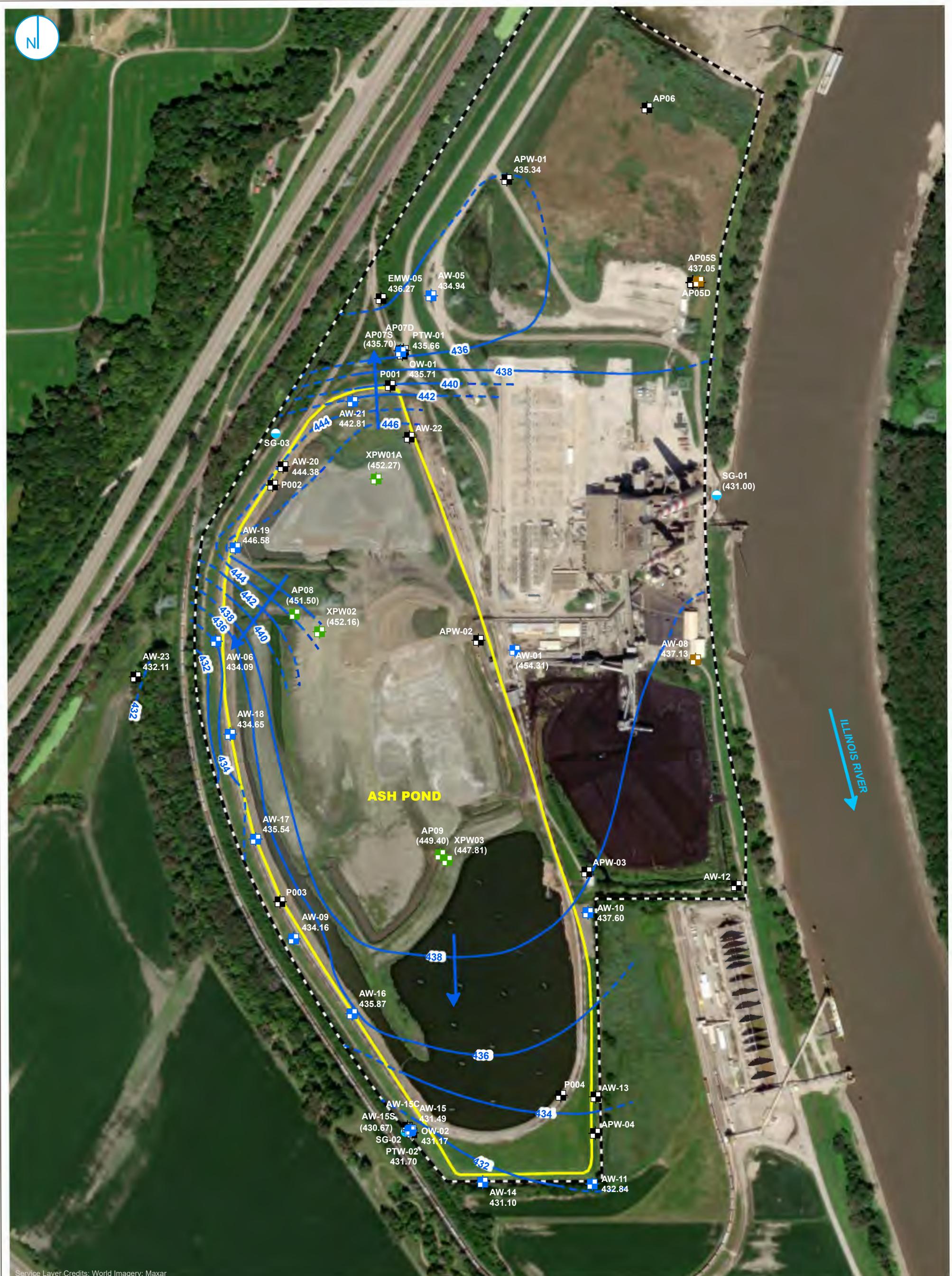
JUNE 12, 2023

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL





**POTENSIOMETRIC SURFACE MAP
OCTOBER 27, 2023**

FIGURE 5

**2023 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT**

ASH POND

EDWARDS POWER PLANT

BARTONVILLE, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

NOTES

- ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
- ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

0 212.5 425 Feet

APPENDIX A LABORATORY REPORTS AND FIELD DATA SHEETS



March 27, 2023

Brian Voelker
Vistra - Edwards
604 Pierce Boulevard
O'Fallon, IL 62269

Dear Brian Voelker:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Gail J. Schindler

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GB04667

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GC00016

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



ANALYTICAL RESULTS

Sample: GB04667-01

Sampled: 02/27/23 15:28

Name: AW-15

Received: 02/28/23 07:20

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	32	mg/L		03/06/23 15:05	10	10	03/06/23 15:05	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		03/03/23 11:55	1	1.0	03/03/23 11:55	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9	Feet		02/27/23 15:28	1		02/27/23 15:28	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		02/27/23 15:28	1		02/27/23 15:28	FIELD	Field*
Oxidation Reduction Potential	-102	mV		02/27/23 15:28	1	-500	02/27/23 15:28	FIELD	Field*
pH, Field Measured	6.75	pH Units		02/27/23 15:28	1		02/27/23 15:28	FIELD	Field*
Specific Conductance, Field Measured	1840	umhos/cm		02/27/23 15:28	1		02/27/23 15:28	FIELD	Field*
Temperature, Field Measured	12.8	°C		02/27/23 15:28	1		02/27/23 15:28	FIELD	Field*
Turbidity, Field Measured	107	NTU		02/27/23 15:28	1	0.00	02/27/23 15:28	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	890	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		03/08/23 12:56	1	0.250	03/08/23 12:56	TTH	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1100	mg/L		03/01/23 16:04	1	26	03/01/23 17:00	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 09:11	JMW	EPA 6020A
Arsenic	3.5	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:11	JMW	EPA 6020A
Barium	1800	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:11	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:11	JMW	EPA 6020A
Boron	370	ug/L		03/06/23 09:21	5	10	03/07/23 09:11	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:11	JMW	EPA 6020A
Calcium	140	mg/L		03/06/23 09:21	5	0.20	03/07/23 09:11	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 09:11	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 09:11	JMW	EPA 6020A
Lead	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:20	JMW	EPA 6020A
Magnesium	57	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:11	JMW	EPA 6020A
Mercury	0.21	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:20	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:11	JMW	EPA 6020A
Potassium	3.9	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:11	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:20	JMW	EPA 6020A
Sodium	210	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:11	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GB04667-01

Sampled: 02/27/23 15:28

Name: AW-15

Received: 02/28/23 07:20

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:11	JMW	EPA 6020A
Lithium	27	ug/L		03/06/23 09:21	1	20	03/07/23 10:10	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GB04667-02

Sampled: 02/27/23 16:30

Name: AW-15S

Received: 02/28/23 07:20

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	28	mg/L		03/03/23 13:25	10	10	03/03/23 13:25	CRD	EPA 300.0 REV 2.1
Fluoride	0.252	mg/L		03/03/23 13:07	1	0.250	03/03/23 13:07	CRD	EPA 300.0 REV 2.1
Sulfate	510	mg/L		03/03/23 13:43	100	100	03/03/23 13:43	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.04	Feet		02/27/23 16:30	1		02/27/23 16:30	FIELD	Field*
Dissolved oxygen, Field	0.64	mg/L		02/27/23 16:30	1		02/27/23 16:30	FIELD	Field*
Oxidation Reduction Potential	117	mV		02/27/23 16:30	1	-500	02/27/23 16:30	FIELD	Field*
pH, Field Measured	6.81	pH Units		02/27/23 16:30	1		02/27/23 16:30	FIELD	Field*
Specific Conductance, Field Measured	1670	umhos/cm		02/27/23 16:30	1		02/27/23 16:30	FIELD	Field*
Temperature, Field Measured	11.8	°C		02/27/23 16:30	1		02/27/23 16:30	FIELD	Field*
Turbidity, Field Measured	78.0	NTU		02/27/23 16:30	1	0.00	02/27/23 16:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	400	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1300	mg/L		03/01/23 16:04	1	26	03/01/23 17:00	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 09:15	JMW	EPA 6020A
Arsenic	1.8	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:15	JMW	EPA 6020A
Barium	81	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:15	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:15	JMW	EPA 6020A
Boron	5900	ug/L		03/06/23 09:21	5	10	03/07/23 09:15	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:15	JMW	EPA 6020A
Calcium	260	mg/L		03/06/23 09:21	5	0.20	03/07/23 09:15	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 09:15	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 09:15	JMW	EPA 6020A
Lead	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:23	JMW	EPA 6020A
Magnesium	82	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:15	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:23	JMW	EPA 6020A
Molybdenum	3.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:15	JMW	EPA 6020A
Potassium	0.69	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:15	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:23	JMW	EPA 6020A
Sodium	52	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:15	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GB04667-02

Sampled: 02/27/23 16:30

Name: AW-15S

Received: 02/28/23 07:20

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:15	JMW	EPA 6020A
Lithium	< 20	ug/L		03/06/23 09:21	1	20	03/07/23 10:14	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GB04667-03

Sampled: 02/27/23 16:50

Name: AW-18

Received: 02/28/23 07:20

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	81	mg/L		03/03/23 14:19	10	10	03/03/23 14:19	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/03/23 14:01	1	0.250	03/03/23 14:01	CRD	EPA 300.0 REV 2.1
Sulfate	10	mg/L		03/03/23 14:19	10	10	03/03/23 14:19	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	27	Feet		02/27/23 16:50	1		02/27/23 16:50	FIELD	Field*
Dissolved oxygen, Field	0.77	mg/L		02/27/23 16:50	1		02/27/23 16:50	FIELD	Field*
Oxidation Reduction Potential	-94.0	mV		02/27/23 16:50	1	-500	02/27/23 16:50	FIELD	Field*
pH, Field Measured	6.93	pH Units		02/27/23 16:50	1		02/27/23 16:50	FIELD	Field*
Specific Conductance, Field Measured	1660	umhos/cm		02/27/23 16:50	1		02/27/23 16:50	FIELD	Field*
Temperature, Field Measured	12.2	°C		02/27/23 16:50	1		02/27/23 16:50	FIELD	Field*
Turbidity, Field Measured	499	NTU		02/27/23 16:50	1	0.00	02/27/23 16:50	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	640	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	830	mg/L		03/01/23 16:04	1	26	03/01/23 17:00	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 09:19	JMW	EPA 6020A
Arsenic	8.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:19	JMW	EPA 6020A
Barium	1800	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:19	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:19	JMW	EPA 6020A
Boron	380	ug/L		03/06/23 09:21	5	10	03/07/23 09:19	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:19	JMW	EPA 6020A
Calcium	140	mg/L		03/06/23 09:21	5	0.20	03/07/23 09:19	JMW	EPA 6020A
Chromium	62	ug/L		03/06/23 09:21	5	4.0	03/07/23 09:19	JMW	EPA 6020A
Cobalt	6.2	ug/L		03/06/23 09:21	5	2.0	03/07/23 09:19	JMW	EPA 6020A
Lead	8.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:26	JMW	EPA 6020A
Magnesium	59	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:19	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:26	JMW	EPA 6020A
Molybdenum	5.1	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:19	JMW	EPA 6020A
Potassium	5.0	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:19	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:26	JMW	EPA 6020A
Sodium	210	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:19	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GB04667-03

Sampled: 02/27/23 16:50

Name: AW-18

Received: 02/28/23 07:20

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:19	JMW	EPA 6020A
Lithium	35	ug/L		03/06/23 09:21	1	20	03/07/23 10:15	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GB04667-04

Sampled: 02/27/23 15:29

Name: AW-19

Received: 02/28/23 07:20

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	69	mg/L		03/03/23 15:31	10	10	03/03/23 15:31	CRD	EPA 300.0 REV 2.1
Fluoride	0.336	mg/L		03/03/23 14:37	1	0.250	03/03/23 14:37	CRD	EPA 300.0 REV 2.1
Sulfate	46	mg/L		03/03/23 15:31	10	10	03/03/23 15:31	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.37	Feet		02/27/23 15:29	1		02/27/23 15:29	FIELD	Field*
Dissolved oxygen, Field	1.9	mg/L		02/27/23 15:29	1		02/27/23 15:29	FIELD	Field*
Oxidation Reduction Potential	20.0	mV		02/27/23 15:29	1	-500	02/27/23 15:29	FIELD	Field*
pH, Field Measured	7.00	pH Units		02/27/23 15:29	1		02/27/23 15:29	FIELD	Field*
Specific Conductance, Field Measured	1080	umhos/cm		02/27/23 15:29	1		02/27/23 15:29	FIELD	Field*
Temperature, Field Measured	12.9	°C		02/27/23 15:29	1		02/27/23 15:29	FIELD	Field*
Turbidity, Field Measured	185	NTU		02/27/23 15:29	1	0.00	02/27/23 15:29	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	380	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	600	mg/L		03/01/23 16:04	1	26	03/01/23 17:00	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 09:23	JMW	EPA 6020A
Arsenic	22	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:23	JMW	EPA 6020A
Barium	370	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:23	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:23	JMW	EPA 6020A
Boron	2900	ug/L		03/06/23 09:21	5	10	03/07/23 09:23	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:23	JMW	EPA 6020A
Calcium	130	mg/L		03/06/23 09:21	5	0.20	03/07/23 09:23	JMW	EPA 6020A
Chromium	31	ug/L		03/06/23 09:21	5	4.0	03/07/23 09:23	JMW	EPA 6020A
Cobalt	4.8	ug/L		03/06/23 09:21	5	2.0	03/07/23 09:23	JMW	EPA 6020A
Lead	5.4	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:29	JMW	EPA 6020A
Magnesium	58	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:23	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:29	JMW	EPA 6020A
Molybdenum	5.5	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:23	JMW	EPA 6020A
Potassium	1.5	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:23	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:29	JMW	EPA 6020A
Sodium	56	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:23	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GB04667-04

Sampled: 02/27/23 15:29

Name: AW-19

Received: 02/28/23 07:20

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:23	JMW	EPA 6020A
Lithium	< 20	ug/L		03/06/23 09:21	1	20	03/07/23 10:16	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-01

Sampled: 02/28/23 14:40

Name: AP05S

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	33	mg/L		03/06/23 17:41	10	10	03/06/23 17:41	CRD	EPA 300.0 REV 2.1
Sulfate	14	mg/L		03/06/23 17:41	10	10	03/06/23 17:41	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	5.43	Feet		02/28/23 14:40	1		02/28/23 14:40	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		02/28/23 14:40	1		02/28/23 14:40	FIELD	Field*
Oxidation Reduction Potential	-87.0	mV		02/28/23 14:40	1	-500	02/28/23 14:40	FIELD	Field*
pH, Field Measured	7.01	pH Units		02/28/23 14:40	1		02/28/23 14:40	FIELD	Field*
Specific Conductance, Field Measured	1390	umhos/cm		02/28/23 14:40	1		02/28/23 14:40	FIELD	Field*
Temperature, Field Measured	14.0	°C		02/28/23 14:40	1		02/28/23 14:40	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		02/28/23 14:40	1	0.00	02/28/23 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	660	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		03/08/23 12:57	1	0.250	03/08/23 12:57	TTH	SM 4500F C 1997
Solids - total dissolved solids (TDS)	820	mg/L		03/01/23 16:04	1	26	03/01/23 17:00	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 09:26	JMW	EPA 6020A
Arsenic	7.3	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:26	JMW	EPA 6020A
Barium	940	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:26	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:26	JMW	EPA 6020A
Boron	340	ug/L		03/06/23 09:21	5	10	03/07/23 09:26	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:26	JMW	EPA 6020A
Calcium	120	mg/L		03/06/23 09:21	5	0.20	03/07/23 09:26	JMW	EPA 6020A
Chromium	25	ug/L		03/06/23 09:21	5	4.0	03/07/23 09:26	JMW	EPA 6020A
Cobalt	12	ug/L		03/06/23 09:21	5	2.0	03/07/23 09:26	JMW	EPA 6020A
Lead	14	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:32	JMW	EPA 6020A
Magnesium	54	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:26	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:32	JMW	EPA 6020A
Molybdenum	2.1	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:26	JMW	EPA 6020A
Potassium	4.6	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:26	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:32	JMW	EPA 6020A
Sodium	180	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:26	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-01

Sampled: 02/28/23 14:40

Name: AP05S

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:26	JMW	EPA 6020A
Lithium	39	ug/L		03/06/23 09:21	1	20	03/07/23 10:17	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-02

Sampled: 02/28/23 13:28

Name: AP07S

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	73	mg/L		03/06/23 18:18	50	50	03/06/23 18:18	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/06/23 18:00	1	0.250	03/06/23 18:00	CRD	EPA 300.0 REV 2.1
Sulfate	180	mg/L		03/06/23 18:18	50	50	03/06/23 18:18	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.55	Feet		02/28/23 13:28	1		02/28/23 13:28	FIELD	Field*
Dissolved oxygen, Field	6.8	mg/L		02/28/23 13:28	1		02/28/23 13:28	FIELD	Field*
Oxidation Reduction Potential	100	mV		02/28/23 13:28	1	-500	02/28/23 13:28	FIELD	Field*
pH, Field Measured	7.13	pH Units		02/28/23 13:28	1		02/28/23 13:28	FIELD	Field*
Specific Conductance, Field Measured	3820	umhos/cm		02/28/23 13:28	1		02/28/23 13:28	FIELD	Field*
Temperature, Field Measured	13.5	°C		02/28/23 13:28	1		02/28/23 13:28	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		02/28/23 13:28	1	0.00	02/28/23 13:28	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	280	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	720	mg/L		03/01/23 16:04	1	26	03/01/23 17:00	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 09:30	JMW	EPA 6020A
Arsenic	2.1	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:30	JMW	EPA 6020A
Barium	87	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:30	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:30	JMW	EPA 6020A
Boron	7900	ug/L		03/06/23 09:21	5	10	03/07/23 09:30	JMW	EPA 6020A
Cadmium	3.5	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:30	JMW	EPA 6020A
Calcium	130	mg/L		03/06/23 09:21	5	0.20	03/07/23 09:30	JMW	EPA 6020A
Chromium	25	ug/L		03/06/23 09:21	5	4.0	03/07/23 09:30	JMW	EPA 6020A
Cobalt	4.8	ug/L		03/06/23 09:21	5	2.0	03/07/23 09:30	JMW	EPA 6020A
Lead	3.4	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:35	JMW	EPA 6020A
Magnesium	49	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:30	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:35	JMW	EPA 6020A
Molybdenum	3.5	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:30	JMW	EPA 6020A
Potassium	1.4	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:30	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:35	JMW	EPA 6020A
Sodium	63	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:30	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-02

Sampled: 02/28/23 13:28

Name: AP07S

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:30	JMW	EPA 6020A
Lithium	< 20	ug/L		03/06/23 09:21	1	20	03/07/23 10:22	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-03

Sampled: 02/28/23 15:41

Name: AW-01

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	110	mg/L		03/07/23 17:51	50	50	03/07/23 17:51	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/06/23 18:36	1	0.250	03/06/23 18:36	CRD	EPA 300.0 REV 2.1
Sulfate	280	mg/L		03/07/23 17:51	50	50	03/07/23 17:51	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	5.47	Feet		02/28/23 15:41	1		02/28/23 15:41	FIELD	Field*
Dissolved oxygen, Field	1.1	mg/L		02/28/23 15:41	1		02/28/23 15:41	FIELD	Field*
Oxidation Reduction Potential	-89.0	mV		02/28/23 15:41	1	-500	02/28/23 15:41	FIELD	Field*
pH, Field Measured	6.98	pH Units		02/28/23 15:41	1		02/28/23 15:41	FIELD	Field*
Specific Conductance, Field Measured	1400	umhos/cm		02/28/23 15:41	1		02/28/23 15:41	FIELD	Field*
Temperature, Field Measured	13.3	°C		02/28/23 15:41	1		02/28/23 15:41	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		02/28/23 15:41	1	0.00	02/28/23 15:41	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	290	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1000	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 09:34	JMW	EPA 6020A
Arsenic	20	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:34	JMW	EPA 6020A
Barium	170	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:34	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:34	JMW	EPA 6020A
Boron	1100	ug/L		03/06/23 09:21	5	10	03/07/23 09:34	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:34	JMW	EPA 6020A
Calcium	180	mg/L		03/06/23 09:21	5	0.20	03/07/23 09:34	JMW	EPA 6020A
Chromium	19	ug/L		03/06/23 09:21	5	4.0	03/07/23 09:34	JMW	EPA 6020A
Cobalt	7.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 09:34	JMW	EPA 6020A
Lead	9.2	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:38	JMW	EPA 6020A
Magnesium	82	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:34	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:38	JMW	EPA 6020A
Molybdenum	2.2	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:34	JMW	EPA 6020A
Potassium	2.1	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:34	JMW	EPA 6020A
Selenium	1.1	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:38	JMW	EPA 6020A
Sodium	49	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:34	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-03

Sampled: 02/28/23 15:41

Name: AW-01

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:34	JMW	EPA 6020A
Lithium	< 20	ug/L		03/06/23 09:21	1	20	03/07/23 10:23	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-04

Sampled: 02/28/23 11:57

Name: AW-05

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	78	mg/L		03/06/23 20:06	10	10	03/06/23 20:06	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/06/23 19:48	1	0.250	03/06/23 19:48	CRD	EPA 300.0 REV 2.1
Sulfate	320	mg/L		03/06/23 20:24	100	100	03/06/23 20:24	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	7.83	Feet		02/28/23 11:57	1		02/28/23 11:57	FIELD	Field*
Dissolved oxygen, Field	3.9	mg/L		02/28/23 11:57	1		02/28/23 11:57	FIELD	Field*
Oxidation Reduction Potential	162	mV		02/28/23 11:57	1	-500	02/28/23 11:57	FIELD	Field*
pH, Field Measured	7.24	pH Units		02/28/23 11:57	1		02/28/23 11:57	FIELD	Field*
Specific Conductance, Field Measured	1440	umhos/cm		02/28/23 11:57	1		02/28/23 11:57	FIELD	Field*
Temperature, Field Measured	12.7	°C		02/28/23 11:57	1		02/28/23 11:57	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		02/28/23 11:57	1	0.00	02/28/23 11:57	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	340	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1100	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 09:38	JMW	EPA 6020A
Arsenic	6.8	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:38	JMW	EPA 6020A
Barium	210	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:38	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:38	JMW	EPA 6020A
Boron	4500	ug/L		03/06/23 09:21	5	10	03/07/23 09:38	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:38	JMW	EPA 6020A
Calcium	170	mg/L		03/06/23 09:21	5	0.20	03/07/23 09:38	JMW	EPA 6020A
Chromium	20	ug/L		03/06/23 09:21	5	4.0	03/07/23 09:38	JMW	EPA 6020A
Cobalt	11	ug/L		03/06/23 09:21	5	2.0	03/07/23 09:38	JMW	EPA 6020A
Lead	9.1	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:41	JMW	EPA 6020A
Magnesium	82	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:38	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:41	JMW	EPA 6020A
Molybdenum	2.6	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:38	JMW	EPA 6020A
Potassium	3.2	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:38	JMW	EPA 6020A
Selenium	1.2	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:41	JMW	EPA 6020A
Sodium	76	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:38	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-04

Sampled: 02/28/23 11:57

Name: AW-05

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:38	JMW	EPA 6020A
Lithium	25	ug/L		03/06/23 09:21	1	20	03/07/23 10:24	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-05

Sampled: 02/28/23 10:03

Name: AW-06

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	31	mg/L		03/06/23 21:00	10	10	03/06/23 21:00	CRD	EPA 300.0 REV 2.1
Fluoride	0.327	mg/L		03/06/23 20:42	1	0.250	03/06/23 20:42	CRD	EPA 300.0 REV 2.1
Sulfate	22	mg/L		03/06/23 21:00	10	10	03/06/23 21:00	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26.79	Feet		02/28/23 10:03	1		02/28/23 10:03	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		02/28/23 10:03	1		02/28/23 10:03	FIELD	Field*
Oxidation Reduction Potential	-65.0	mV		02/28/23 10:03	1	-500	02/28/23 10:03	FIELD	Field*
pH, Field Measured	7.39	pH Units		02/28/23 10:03	1		02/28/23 10:03	FIELD	Field*
Specific Conductance, Field Measured	971.0	umhos/cm		02/28/23 10:03	1		02/28/23 10:03	FIELD	Field*
Temperature, Field Measured	11.2	°C		02/28/23 10:03	1		02/28/23 10:03	FIELD	Field*
Turbidity, Field Measured	1000	NTU		02/28/23 10:03	1	0.00	02/28/23 10:03	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	400	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	610	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 09:42	JMW	EPA 6020A
Arsenic	6.4	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:42	JMW	EPA 6020A
Barium	190	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:42	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:42	JMW	EPA 6020A
Boron	180	ug/L		03/06/23 09:21	5	10	03/07/23 09:42	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:42	JMW	EPA 6020A
Calcium	110	mg/L		03/06/23 09:21	5	0.20	03/07/23 09:42	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 09:42	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 09:42	JMW	EPA 6020A
Lead	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:44	JMW	EPA 6020A
Magnesium	45	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:42	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:44	JMW	EPA 6020A
Molybdenum	5.3	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:42	JMW	EPA 6020A
Potassium	0.84	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:42	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:44	JMW	EPA 6020A
Sodium	57	mg/L		03/06/23 09:21	5	0.10	03/07/23 09:42	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-05

Sampled: 02/28/23 10:03

Name: AW-06

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 09:42	JMW	EPA 6020A
Lithium	< 20	ug/L		03/06/23 09:21	1	20	03/07/23 10:25	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-06

Sampled: 02/28/23 15:57

Name: AW-08

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	14	mg/L		03/06/23 21:37	5	5.0	03/06/23 21:37	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/06/23 21:18	1	0.250	03/06/23 21:18	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		03/06/23 21:18	1	1.0	03/06/23 21:18	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	24.6	Feet		02/28/23 15:57	1		02/28/23 15:57	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		02/28/23 15:57	1		02/28/23 15:57	FIELD	Field*
Oxidation Reduction Potential	-133	mV		02/28/23 15:57	1	-500	02/28/23 15:57	FIELD	Field*
pH, Field Measured	8.92	pH Units		02/28/23 15:57	1		02/28/23 15:57	FIELD	Field*
Specific Conductance, Field Measured	725.0	umhos/cm		02/28/23 15:57	1		02/28/23 15:57	FIELD	Field*
Temperature, Field Measured	13.7	°C		02/28/23 15:57	1		02/28/23 15:57	FIELD	Field*
Turbidity, Field Measured	11.9	NTU		02/28/23 15:57	1	0.00	02/28/23 15:57	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	620	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/03/23 13:45	1	10	03/03/23 13:45	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	740	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:14	JMW	EPA 6020A
Arsenic	11	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:14	JMW	EPA 6020A
Barium	200	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:14	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:14	JMW	EPA 6020A
Boron	100	ug/L		03/06/23 09:21	5	10	03/07/23 10:14	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:14	JMW	EPA 6020A
Calcium	140	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:14	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:14	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:14	JMW	EPA 6020A
Lead	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:47	JMW	EPA 6020A
Magnesium	58	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:14	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:47	JMW	EPA 6020A
Molybdenum	1.8	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:14	JMW	EPA 6020A
Potassium	1.4	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:14	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:47	JMW	EPA 6020A
Sodium	63	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:14	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-06

Sampled: 02/28/23 15:57

Name: AW-08

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:47	JMW	EPA 6020A
Lithium	< 20	ug/L		03/06/23 09:21	1	20	03/07/23 10:26	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-07

Sampled: 02/28/23 12:05

Name: AW-09

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	26	mg/L		03/03/23 16:08	10	10	03/03/23 16:08	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/03/23 15:50	1	0.250	03/03/23 15:50	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		03/03/23 15:50	1	1.0	03/03/23 15:50	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26.01	Feet		02/28/23 12:05	1		02/28/23 12:05	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		02/28/23 12:05	1		02/28/23 12:05	FIELD	Field*
Oxidation Reduction Potential	-130	mV		02/28/23 12:05	1	-500	02/28/23 12:05	FIELD	Field*
pH, Field Measured	7.02	pH Units		02/28/23 12:05	1		02/28/23 12:05	FIELD	Field*
Specific Conductance, Field Measured	1330	umhos/cm		02/28/23 12:05	1		02/28/23 12:05	FIELD	Field*
Temperature, Field Measured	12.6	°C		02/28/23 12:05	1		02/28/23 12:05	FIELD	Field*
Turbidity, Field Measured	77.2	NTU		02/28/23 12:05	1	0.00	02/28/23 12:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	750	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	830	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:18	JMW	EPA 6020A
Arsenic	12	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:18	JMW	EPA 6020A
Barium	200	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:18	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:18	JMW	EPA 6020A
Boron	100	ug/L		03/06/23 09:21	5	10	03/07/23 10:18	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:18	JMW	EPA 6020A
Calcium	140	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:18	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:18	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:18	JMW	EPA 6020A
Lead	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:59	JMW	EPA 6020A
Magnesium	59	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:18	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 17:59	JMW	EPA 6020A
Molybdenum	1.9	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:18	JMW	EPA 6020A
Potassium	1.4	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:18	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:59	JMW	EPA 6020A
Sodium	64	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:18	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-07

Sampled: 02/28/23 12:05

Name: AW-09

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 17:59	JMW	EPA 6020A
Lithium	< 20	ug/L		03/06/23 09:21	1	20	03/07/23 10:28	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-08

Sampled: 02/28/23 15:45

Name: AW-10

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	85	mg/L		03/03/23 16:44	25	25	03/03/23 16:44	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/03/23 16:26	1	0.250	03/03/23 16:26	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		03/03/23 16:26	1	1.0	03/03/23 16:26	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	2	Feet		02/28/23 15:45	1		02/28/23 15:45	FIELD	Field*
Dissolved oxygen, Field	0.82	mg/L		02/28/23 15:45	1		02/28/23 15:45	FIELD	Field*
Oxidation Reduction Potential	-89.0	mV		02/28/23 15:45	1	-500	02/28/23 15:45	FIELD	Field*
pH, Field Measured	7.00	pH Units		02/28/23 15:45	1		02/28/23 15:45	FIELD	Field*
Specific Conductance, Field Measured	2030	umhos/cm		02/28/23 15:45	1		02/28/23 15:45	FIELD	Field*
Temperature, Field Measured	12.3	°C		02/28/23 15:45	1		02/28/23 15:45	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		02/28/23 15:45	1	0.00	02/28/23 15:45	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	1100	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1300	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:22	JMW	EPA 6020A
Arsenic	16	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:22	JMW	EPA 6020A
Barium	1300	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:22	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:22	JMW	EPA 6020A
Boron	520	ug/L		03/06/23 09:21	5	10	03/07/23 10:22	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:22	JMW	EPA 6020A
Calcium	140	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:22	JMW	EPA 6020A
Chromium	9.5	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:22	JMW	EPA 6020A
Cobalt	6.8	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:22	JMW	EPA 6020A
Lead	6.2	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:02	JMW	EPA 6020A
Magnesium	66	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:22	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 18:02	JMW	EPA 6020A
Molybdenum	1.2	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:22	JMW	EPA 6020A
Potassium	4.2	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:22	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:02	JMW	EPA 6020A
Sodium	290	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:22	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-08

Sampled: 02/28/23 15:45

Name: AW-10

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:02	JMW	EPA 6020A
Lithium	43	ug/L		03/06/23 09:21	1	20	03/07/23 10:29	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-09

Sampled: 02/28/23 14:24

Name: AW-11

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	30	mg/L		03/03/23 17:20	10	10	03/03/23 17:20	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/03/23 17:02	1	0.250	03/03/23 17:02	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		03/03/23 17:02	1	1.0	03/03/23 17:02	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	6.23	Feet		02/28/23 14:24	1		02/28/23 14:24	FIELD	Field*
Dissolved oxygen, Field	0.91	mg/L		02/28/23 14:24	1		02/28/23 14:24	FIELD	Field*
Oxidation Reduction Potential	-103	mV		02/28/23 14:24	1	-500	02/28/23 14:24	FIELD	Field*
pH, Field Measured	7.17	pH Units		02/28/23 14:24	1		02/28/23 14:24	FIELD	Field*
Specific Conductance, Field Measured	1650	umhos/cm		02/28/23 14:24	1		02/28/23 14:24	FIELD	Field*
Temperature, Field Measured	10.8	°C		02/28/23 14:24	1		02/28/23 14:24	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		02/28/23 14:24	1	0.00	02/28/23 14:24	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	990	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1000	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:26	JMW	EPA 6020A
Arsenic	13	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:26	JMW	EPA 6020A
Barium	1100	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:26	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:26	JMW	EPA 6020A
Boron	240	ug/L		03/06/23 09:21	5	10	03/07/23 10:26	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:26	JMW	EPA 6020A
Calcium	170	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:26	JMW	EPA 6020A
Chromium	17	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:26	JMW	EPA 6020A
Cobalt	10	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:26	JMW	EPA 6020A
Lead	10	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:04	JMW	EPA 6020A
Magnesium	75	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:26	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 18:04	JMW	EPA 6020A
Molybdenum	3.2	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:26	JMW	EPA 6020A
Potassium	3.9	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:26	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:04	JMW	EPA 6020A
Sodium	150	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:26	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-09

Sampled: 02/28/23 14:24

Name: AW-11

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:04	JMW	EPA 6020A
Lithium	31	ug/L		03/06/23 09:21	1	20	03/07/23 10:30	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-10

Sampled: 02/28/23 13:13

Name: AW-14

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	21	mg/L	Q4	03/03/23 19:08	5	5.0	03/03/23 19:08	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/03/23 17:38	1	0.250	03/03/23 17:38	CRD	EPA 300.0 REV 2.1
Sulfate	5.7	mg/L		03/03/23 17:38	1	1.0	03/03/23 17:38	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	6.93	Feet		02/28/23 13:13	1		02/28/23 13:13	FIELD	Field*
Dissolved oxygen, Field	1.1	mg/L		02/28/23 13:13	1		02/28/23 13:13	FIELD	Field*
Oxidation Reduction Potential	-63.0	mV		02/28/23 13:13	1	-500	02/28/23 13:13	FIELD	Field*
pH, Field Measured	6.98	pH Units		02/28/23 13:13	1		02/28/23 13:13	FIELD	Field*
Specific Conductance, Field Measured	1690	umhos/cm		02/28/23 13:13	1		02/28/23 13:13	FIELD	Field*
Temperature, Field Measured	11.4	°C		02/28/23 13:13	1		02/28/23 13:13	FIELD	Field*
Turbidity, Field Measured	261	NTU		02/28/23 13:13	1	0.00	02/28/23 13:13	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	980	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1100	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:30	JMW	EPA 6020A
Arsenic	15	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:30	JMW	EPA 6020A
Barium	720	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:30	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:30	JMW	EPA 6020A
Boron	180	ug/L		03/06/23 09:21	5	10	03/07/23 10:30	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:30	JMW	EPA 6020A
Calcium	170	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:30	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:30	JMW	EPA 6020A
Cobalt	4.8	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:30	JMW	EPA 6020A
Lead	1.7	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:07	JMW	EPA 6020A
Magnesium	66	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:30	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 18:07	JMW	EPA 6020A
Molybdenum	19	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:30	JMW	EPA 6020A
Potassium	2.5	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:30	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:07	JMW	EPA 6020A
Sodium	150	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:30	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-10

Sampled: 02/28/23 13:13

Name: AW-14

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:07	JMW	EPA 6020A
Lithium	< 20	ug/L		03/06/23 09:21	1	20	03/07/23 10:31	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-11

Sampled: 02/28/23 13:08

Name: AW-16

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	46	mg/L	Q4	03/03/23 20:21	10	10	03/03/23 20:21	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/03/23 19:26	1	0.250	03/03/23 19:26	CRD	EPA 300.0 REV 2.1
Sulfate	3.4	mg/L		03/03/23 19:26	1	1.0	03/03/23 19:26	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.89	Feet		02/28/23 13:08	1		02/28/23 13:08	FIELD	Field*
Dissolved oxygen, Field	0.97	mg/L		02/28/23 13:08	1		02/28/23 13:08	FIELD	Field*
Oxidation Reduction Potential	-94.0	mV		02/28/23 13:08	1	-500	02/28/23 13:08	FIELD	Field*
pH, Field Measured	6.83	pH Units		02/28/23 13:08	1		02/28/23 13:08	FIELD	Field*
Specific Conductance, Field Measured	1950	umhos/cm		02/28/23 13:08	1		02/28/23 13:08	FIELD	Field*
Temperature, Field Measured	13.2	°C		02/28/23 13:08	1		02/28/23 13:08	FIELD	Field*
Turbidity, Field Measured	29.3	NTU		02/28/23 13:08	1	0.00	02/28/23 13:08	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	1100	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1200	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:33	JMW	EPA 6020A
Arsenic	2.2	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:33	JMW	EPA 6020A
Barium	1300	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:33	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:33	JMW	EPA 6020A
Boron	490	ug/L		03/06/23 09:21	5	10	03/07/23 10:33	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:33	JMW	EPA 6020A
Calcium	140	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:33	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:33	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:33	JMW	EPA 6020A
Lead	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:10	JMW	EPA 6020A
Magnesium	59	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:33	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 18:10	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:33	JMW	EPA 6020A
Potassium	4.9	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:33	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:10	JMW	EPA 6020A
Sodium	260	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:33	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-11

Sampled: 02/28/23 13:08

Name: AW-16

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:10	JMW	EPA 6020A
Lithium	37	ug/L		03/06/23 09:21	1	20	03/07/23 10:32	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-12

Sampled: 02/28/23 11:06

Name: AW-17

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	47	mg/L		03/03/23 20:57	10	10	03/03/23 20:57	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/03/23 20:39	1	0.250	03/03/23 20:39	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		03/03/23 20:39	1	1.0	03/03/23 20:39	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.6	Feet		02/28/23 11:06	1		02/28/23 11:06	FIELD	Field*
Dissolved oxygen, Field	0.36	mg/L		02/28/23 11:06	1		02/28/23 11:06	FIELD	Field*
Oxidation Reduction Potential	-108	mV		02/28/23 11:06	1	-500	02/28/23 11:06	FIELD	Field*
pH, Field Measured	6.90	pH Units		02/28/23 11:06	1		02/28/23 11:06	FIELD	Field*
Specific Conductance, Field Measured	1610	umhos/cm		02/28/23 11:06	1		02/28/23 11:06	FIELD	Field*
Temperature, Field Measured	12.6	°C		02/28/23 11:06	1		02/28/23 11:06	FIELD	Field*
Turbidity, Field Measured	869	NTU		02/28/23 11:06	1	0.00	02/28/23 11:06	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	900	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1100	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:37	JMW	EPA 6020A
Arsenic	6.1	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:37	JMW	EPA 6020A
Barium	1200	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:37	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:37	JMW	EPA 6020A
Boron	420	ug/L		03/06/23 09:21	5	10	03/07/23 10:37	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:37	JMW	EPA 6020A
Calcium	110	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:37	JMW	EPA 6020A
Chromium	4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:37	JMW	EPA 6020A
Cobalt	3.4	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:37	JMW	EPA 6020A
Lead	1.8	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:13	JMW	EPA 6020A
Magnesium	45	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:37	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 18:13	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:37	JMW	EPA 6020A
Potassium	4.5	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:37	JMW	EPA 6020A
Selenium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:13	JMW	EPA 6020A
Sodium	230	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:37	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-12

Sampled: 02/28/23 11:06

Name: AW-17

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:13	JMW	EPA 6020A
Lithium	34	ug/L		03/06/23 09:21	1	20	03/07/23 10:37	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-13

Sampled: 02/28/23 10:05

Name: AW-21

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	80	mg/L		03/03/23 21:33	50	50	03/03/23 21:33	CRD	EPA 300.0 REV 2.1
Fluoride	0.360	mg/L		03/03/23 21:15	1	0.250	03/03/23 21:15	CRD	EPA 300.0 REV 2.1
Sulfate	240	mg/L		03/03/23 21:33	50	50	03/03/23 21:33	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	16.34	Feet		02/28/23 10:05	1		02/28/23 10:05	FIELD	Field*
Dissolved oxygen, Field	6.7	mg/L		02/28/23 10:05	1		02/28/23 10:05	FIELD	Field*
Oxidation Reduction Potential	227	mV		02/28/23 10:05	1	-500	02/28/23 10:05	FIELD	Field*
pH, Field Measured	7.99	pH Units		02/28/23 10:05	1		02/28/23 10:05	FIELD	Field*
Specific Conductance, Field Measured	728.0	umhos/cm		02/28/23 10:05	1		02/28/23 10:05	FIELD	Field*
Temperature, Field Measured	12.2	°C		02/28/23 10:05	1		02/28/23 10:05	FIELD	Field*
Turbidity, Field Measured	125	NTU		02/28/23 10:05	1	0.00	02/28/23 10:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	160	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	680	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:41	JMW	EPA 6020A
Arsenic	2.7	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:41	JMW	EPA 6020A
Barium	58	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:41	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:41	JMW	EPA 6020A
Boron	13000	ug/L		03/06/23 09:21	100	200	03/07/23 12:08	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:41	JMW	EPA 6020A
Calcium	110	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:41	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:41	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:41	JMW	EPA 6020A
Lead	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:16	JMW	EPA 6020A
Magnesium	34	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:41	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 18:16	JMW	EPA 6020A
Molybdenum	29	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:41	JMW	EPA 6020A
Potassium	3.4	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:41	JMW	EPA 6020A
Selenium	1.7	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:16	JMW	EPA 6020A
Sodium	60	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:41	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-13

Sampled: 02/28/23 10:05

Name: AW-21

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:16	JMW	EPA 6020A
Lithium	< 20	ug/L		03/06/23 09:21	1	20	03/07/23 10:38	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-14

Sampled: 02/28/23 10:48

Name: XPW01A

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	86	mg/L		03/03/23 22:45	25	25	03/03/23 22:45	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		03/03/23 21:51	1	0.250	03/03/23 21:51	CRD	EPA 300.0 REV 2.1
Sulfate	220	mg/L		03/03/23 22:45	25	25	03/03/23 22:45	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.32	Feet		02/28/23 10:48	1		02/28/23 10:48	FIELD	Field*
Dissolved oxygen, Field	4.2	mg/L		02/28/23 10:48	1		02/28/23 10:48	FIELD	Field*
Oxidation Reduction Potential	54.0	mV		02/28/23 10:48	1	-500	02/28/23 10:48	FIELD	Field*
pH, Field Measured	11.8	pH Units		02/28/23 10:48	1		02/28/23 10:48	FIELD	Field*
Specific Conductance, Field Measured	1970	umhos/cm		02/28/23 10:48	1		02/28/23 10:48	FIELD	Field*
Temperature, Field Measured	11.0	°C		02/28/23 10:48	1		02/28/23 10:48	FIELD	Field*
Turbidity, Field Measured	52.9	NTU		02/28/23 10:48	1	0.00	02/28/23 10:48	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	75	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	960	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:45	JMW	EPA 6020A
Arsenic	120	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:45	JMW	EPA 6020A
Barium	34	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:45	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:45	JMW	EPA 6020A
Boron	19000	ug/L		03/06/23 09:21	100	200	03/07/23 12:12	JMW	EPA 6020A
Cadmium	1.9	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:45	JMW	EPA 6020A
Calcium	57	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:45	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:45	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:45	JMW	EPA 6020A
Lead	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:19	JMW	EPA 6020A
Magnesium	< 0.10	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:45	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 18:19	JMW	EPA 6020A
Molybdenum	3200	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:45	JMW	EPA 6020A
Potassium	240	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:45	JMW	EPA 6020A
Selenium	8.5	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:19	JMW	EPA 6020A
Sodium	120	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:45	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-14

Sampled: 02/28/23 10:48

Name: XPW01A

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:19	JMW	EPA 6020A
Lithium	680	ug/L		03/06/23 09:21	1	20	03/07/23 10:39	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-15

Sampled: 02/28/23 14:27

Name: XPW02

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	100	mg/L		03/03/23 23:03	100	100	03/03/23 23:03	CRD	EPA 300.0 REV 2.1
Sulfate	930	mg/L		03/03/23 23:03	100	100	03/03/23 23:03	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.13	Feet		02/28/23 14:27	1		02/28/23 14:27	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		02/28/23 14:27	1		02/28/23 14:27	FIELD	Field*
Oxidation Reduction Potential	-148	mV		02/28/23 14:27	1	-500	02/28/23 14:27	FIELD	Field*
pH, Field Measured	12.2	pH Units		02/28/23 14:27	1		02/28/23 14:27	FIELD	Field*
Specific Conductance, Field Measured	4140	umhos/cm		02/28/23 14:27	1		02/28/23 14:27	FIELD	Field*
Temperature, Field Measured	13.9	°C		02/28/23 14:27	1		02/28/23 14:27	FIELD	Field*
Turbidity, Field Measured	19.8	NTU		02/28/23 14:27	1	0.00	02/28/23 14:27	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	120	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Fluoride	0.319	mg/L		03/06/23 16:44	1	0.250	03/06/23 16:44	TTH	SM 4500F C 1997
Solids - total dissolved solids (TDS)	2400	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	3.2	ug/L		03/06/23 09:21	5	3.0	03/07/23 10:49	JMW	EPA 6020A
Arsenic	170	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:49	JMW	EPA 6020A
Barium	38	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:49	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:49	JMW	EPA 6020A
Boron	16000	ug/L		03/06/23 09:21	100	200	03/07/23 12:15	JMW	EPA 6020A
Cadmium	1.9	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:49	JMW	EPA 6020A
Calcium	37	mg/L		03/06/23 09:21	5	0.20	03/07/23 10:49	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 10:49	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 10:49	JMW	EPA 6020A
Lead	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:22	JMW	EPA 6020A
Magnesium	0.23	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:49	JMW	EPA 6020A
Mercury	0.28	ug/L		03/06/23 09:21	5	0.20	03/07/23 18:22	JMW	EPA 6020A
Molybdenum	3200	ug/L		03/06/23 09:21	5	1.0	03/07/23 10:49	JMW	EPA 6020A
Potassium	110	mg/L		03/06/23 09:21	5	0.10	03/07/23 10:49	JMW	EPA 6020A
Selenium	160	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:22	JMW	EPA 6020A
Sodium	730	mg/L		03/06/23 09:21	100	2.0	03/08/23 07:55	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-15

Sampled: 02/28/23 14:27

Name: XPW02

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:22	JMW	EPA 6020A
Lithium	310	ug/L		03/06/23 09:21	1	20	03/07/23 10:40	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GC00016-16

Sampled: 02/28/23 16:33

Name: XPW03

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	93	mg/L		03/03/23 23:21	50	50	03/03/23 23:21	CRD	EPA 300.0 REV 2.1
Sulfate	260	mg/L		03/03/23 23:21	50	50	03/03/23 23:21	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	16.34	Feet		02/28/23 16:33	1		02/28/23 16:33	FIELD	Field*
Dissolved oxygen, Field	2.6	mg/L		02/28/23 16:33	1		02/28/23 16:33	FIELD	Field*
Oxidation Reduction Potential	-51.0	mV		02/28/23 16:33	1	-500	02/28/23 16:33	FIELD	Field*
pH, Field Measured	11.9	pH Units		02/28/23 16:33	1		02/28/23 16:33	FIELD	Field*
Specific Conductance, Field Measured	1930	umhos/cm		02/28/23 16:33	1		02/28/23 16:33	FIELD	Field*
Temperature, Field Measured	15.1	°C		02/28/23 16:33	1		02/28/23 16:33	FIELD	Field*
Turbidity, Field Measured	78.1	NTU		02/28/23 16:33	1	0.00	02/28/23 16:33	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	< 10	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	120	mg/L		03/07/23 10:31	1	10	03/07/23 10:31	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		03/06/23 16:45	1	0.250	03/06/23 16:45	TTH	SM 4500F C 1997
Solids - total dissolved solids (TDS)	2000	mg/L		03/02/23 09:54	1	26	03/02/23 10:44	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/06/23 09:21	5	3.0	03/08/23 10:03	JMW	EPA 6020A
Arsenic	27	ug/L		03/06/23 09:21	5	1.0	03/07/23 11:41	JMW	EPA 6020A
Barium	120	ug/L		03/06/23 09:21	5	1.0	03/07/23 11:41	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 11:41	JMW	EPA 6020A
Boron	5700	ug/L		03/06/23 09:21	5	10	03/07/23 11:41	JMW	EPA 6020A
Cadmium	2.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 11:41	JMW	EPA 6020A
Calcium	61	mg/L		03/06/23 09:21	5	0.20	03/07/23 11:41	JMW	EPA 6020A
Chromium	< 4.0	ug/L		03/06/23 09:21	5	4.0	03/07/23 11:41	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		03/06/23 09:21	5	2.0	03/07/23 11:41	JMW	EPA 6020A
Lead	1.8	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:25	JMW	EPA 6020A
Magnesium	0.36	mg/L		03/06/23 09:21	5	0.10	03/07/23 11:41	JMW	EPA 6020A
Mercury	< 0.20	ug/L		03/06/23 09:21	5	0.20	03/07/23 18:25	JMW	EPA 6020A
Molybdenum	3100	ug/L		03/06/23 09:21	5	1.0	03/07/23 11:41	JMW	EPA 6020A
Potassium	68	mg/L		03/06/23 09:21	5	0.10	03/07/23 11:41	JMW	EPA 6020A
Selenium	18	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:25	JMW	EPA 6020A
Sodium	230	mg/L		03/06/23 09:21	5	0.10	03/08/23 10:03	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GC00016-16

Sampled: 02/28/23 16:33

Name: XPW03

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		03/06/23 09:21	5	1.0	03/07/23 18:25	JMW	EPA 6020A
Lithium	130	ug/L		03/06/23 09:21	1	20	03/07/23 10:42	TJJ	EPA 6010B



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B327096 - No Prep - SM 2540C</u>									
Blank (B327096-BLK1)					Prepared & Analyzed: 03/01/23				
Solids - total dissolved solids (TDS)	< 17	mg/L							
<u>LCS (B327096-BS1)</u>									
Solids - total dissolved solids (TDS)	957	mg/L		1000		96	84.9-109		
<u>Batch B327134 - No Prep - SM 2540C</u>									
Blank (B327134-BLK1)					Prepared & Analyzed: 03/02/23				
Solids - total dissolved solids (TDS)	< 17	mg/L							
<u>LCS (B327134-BS1)</u>									
Solids - total dissolved solids (TDS)	983	mg/L		1000		98	84.9-109		
<u>Duplicate (B327134-DUP1)</u>									
Solids - total dissolved solids (TDS)	725	mg/L			735			1	5
<u>Duplicate (B327134-DUP2)</u>									
Solids - total dissolved solids (TDS)	830	mg/L			830			0	5
<u>Batch B327318 - No Prep - SM 2320B 1997</u>									
Blank (B327318-BLK1)					Prepared & Analyzed: 03/03/23				
Alkalinity - bicarbonate as CaCO ₃	2.50	mg/L							
<u>Batch B327371 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B327371-CCB1)									
Sulfate	0.00	mg/L							
Fluoride	0.00	mg/L							
Chloride	0.489	mg/L							
Calibration Check (B327371-CCV1)									
Sulfate	4.91	mg/L		5.000		98	90-110		
Fluoride	5.11	mg/L		5.000		102	90-110		
Chloride	4.87	mg/L		5.000		97	90-110		
Matrix Spike (B327371-MS1)									
Sulfate	1.54	mg/L		1.500	ND	103	80-120		
Matrix Spike (B327371-MS2)									
Sulfate	7.27	mg/L		1.500	5.68	106	80-120		
Fluoride	1.45	mg/L		1.500	0.0778	91	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	21	NR	80-120		
Matrix Spike (B327371-MS3)									
Fluoride	1.40	mg/L		1.500	0.0535	90	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	46	NR	80-120		
Sulfate	4.91	mg/L		1.500	3.37	102	80-120		
Matrix Spike Dup (B327371-MSD1)									
Sulfate	1.57	mg/L		1.500	ND	105	80-120	2	20
Matrix Spike Dup (B327371-MSD2)									
Sulfate	1.42	mg/L		1.500	0.0778	90	80-120	2	20
Fluoride	7.28	mg/L		1.500	5.68	107	80-120	0.1	20
Chloride	< 1.0	mg/L	Q4	1.500	21	NR	80-120		20
Matrix Spike Dup (B327371-MSD3)									
Fluoride	1.40	mg/L		1.500	0.0535	90	80-120		
Sulfate	4.91	mg/L		1.500	3.37	102	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	21	NR	80-120		
Sample: GC00016-11									
Sulfate	1.57	mg/L		1.500	ND	105	80-120	2	20
Sample: GB04667-01									
Sulfate	1.54	mg/L		1.500	ND	103	80-120		
Sample: GC00016-10									
Sulfate	7.27	mg/L		1.500	5.68	106	80-120		
Fluoride	1.45	mg/L		1.500	0.0778	91	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	21	NR	80-120		
Sample: GB04667-01									
Sulfate	1.57	mg/L		1.500	ND	105	80-120	2	20
Sample: GC00016-10									
Sulfate	1.42	mg/L		1.500	0.0778	90	80-120	2	20
Fluoride	7.28	mg/L		1.500	5.68	107	80-120	0.1	20
Chloride	< 1.0	mg/L	Q4	1.500	21	NR	80-120		20
Sample: GC00016-11									
Sulfate	1.57	mg/L		1.500	ND	105	80-120	2	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B327371-MSD3)	Sample: GC00016-11			Prepared & Analyzed: 03/03/23					
Chloride	< 1.0	mg/L	Q4	1.500	46	NR	80-120		20
Sulfate	4.90	mg/L		1.500	3.37	102	80-120	0.2	20
Fluoride	1.40	mg/L		1.500	0.0535	89	80-120	0.3	20
<u>Batch B327373 - SW 3015 - EPA 6010B</u>									
Blank (B327373-BLK1)						Prepared: 03/06/23 Analyzed: 03/07/23			
Lithium	< 20	ug/L							
LCS (B327373-BS1)									
Lithium	509	ug/L		555.6		92	80-120		
Matrix Spike (B327373-MS1)	Sample: GB04667-01			Prepared: 03/06/23 Analyzed: 03/07/23					
Lithium	511	ug/L		555.6	26.8	87	75-125		
Matrix Spike Dup (B327373-MSD1)	Sample: GB04667-01			Prepared: 03/06/23 Analyzed: 03/07/23					
Lithium	537	ug/L		555.6	26.8	92	75-125	5	200
<u>Batch B327373 - SW 3015 - EPA 6020A</u>									
Blank (B327373-BLK1)						Prepared: 03/06/23 Analyzed: 03/07/23			
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B327373-BS1)						Prepared: 03/06/23 Analyzed: 03/07/23			
Antimony	551	ug/L		555.6		99	80-120		
Arsenic	548	ug/L		555.6		99	80-120		
Barium	540	ug/L		555.6		97	80-120		
Beryllium	524	ug/L		555.6		94	80-120		
Boron	531	ug/L		555.6		96	80-120		
Cadmium	557	ug/L		555.6		100	80-120		
Calcium	5.73	mg/L		5.556		103	80-120		
Chromium	557	ug/L		555.6		100	80-120		
Cobalt	556	ug/L		555.6		100	80-120		
Lead	556	ug/L		555.6		100	80-120		
Magnesium	5.95	mg/L		5.556		107	80-120		
Mercury	52.8	ug/L		55.56		95	80-120		
Molybdenum	534	ug/L		555.6		96	80-120		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B327373-BS1)				Prepared: 03/06/23 Analyzed: 03/07/23					
Potassium	5.51	mg/L		5.556	99	80-120			
Selenium	560	ug/L		555.6	101	80-120			
Sodium	6.07	mg/L		5.556	109	80-120			
Thallium	540	ug/L		555.6	97	80-120			
Matrix Spike (B327373-MS1)		Sample: GB04667-01		Prepared: 03/06/23 Analyzed: 03/07/23					
Antimony	553	ug/L		555.6	ND	100	75-125		
Arsenic	548	ug/L		555.6	3.53	98	75-125		
Barium	2220	ug/L		555.6	1770	82	75-125		
Beryllium	531	ug/L		555.6	ND	96	75-125		
Boron	930	ug/L		555.6	366	102	75-125		
Cadmium	557	ug/L		555.6	ND	100	75-125		
Calcium	147	mg/L		5.556	142	85	75-125		
Chromium	546	ug/L		555.6	ND	98	75-125		
Cobalt	545	ug/L		555.6	1.83	98	75-125		
Lead	540	ug/L		555.6	0.272	97	75-125		
Magnesium	62.1	mg/L		5.556	56.8	95	75-125		
Mercury	54.2	ug/L		55.56	0.206	97	75-125		
Molybdenum	550	ug/L		555.6	ND	99	75-125		
Potassium	9.36	mg/L		5.556	3.95	97	75-125		
Selenium	547	ug/L		555.6	ND	98	75-125		
Sodium	214	mg/L		5.556	210	76	75-125		
Thallium	522	ug/L		555.6	ND	94	75-125		
Matrix Spike Dup (B327373-MSD1)		Sample: GB04667-01		Prepared: 03/06/23 Analyzed: 03/07/23					
Antimony	556	ug/L		555.6	ND	100	75-125	0.5	20
Arsenic	555	ug/L		555.6	3.53	99	75-125	1	20
Barium	2240	ug/L		555.6	1770	85	75-125	0.8	20
Beryllium	535	ug/L		555.6	ND	96	75-125	0.6	20
Boron	937	ug/L		555.6	366	103	75-125	0.7	20
Cadmium	562	ug/L		555.6	ND	101	75-125	0.9	20
Calcium	148	mg/L		5.556	142	99	75-125	0.5	20
Chromium	551	ug/L		555.6	ND	99	75-125	0.8	20
Cobalt	551	ug/L		555.6	1.83	99	75-125	1	20
Lead	546	ug/L		555.6	0.272	98	75-125	1	20
Magnesium	62.6	mg/L		5.556	56.8	105	75-125	0.9	20
Mercury	55.0	ug/L		55.56	0.206	99	75-125	1	20
Molybdenum	555	ug/L		555.6	ND	100	75-125	1	20
Potassium	9.43	mg/L		5.556	3.95	99	75-125	0.8	20
Selenium	543	ug/L		555.6	ND	98	75-125	0.6	20
Sodium	217	mg/L		5.556	210	117	75-125	1	20
Thallium	529	ug/L		555.6	ND	95	75-125	1	20
<u>Batch B327405 - No Prep - SM 4500F C 1997</u>									
Calibration Blank (B327405-CCB1)				Prepared & Analyzed: 03/06/23					
Fluoride	0.00900	mg/L							
Calibration Blank (B327405-CCB2)				Prepared & Analyzed: 03/06/23					
Fluoride	0.00500	mg/L							
Calibration Check (B327405-CCV1)				Prepared & Analyzed: 03/06/23					



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit			
Calibration Check (B327405-CCV1)					Prepared & Analyzed: 03/06/23							
Fluoride	0.653	mg/L		0.7000		93	90-110					
Calibration Check (B327405-CCV2)					Prepared & Analyzed: 03/06/23							
Fluoride	0.698	mg/L		0.7000		100	90-110					
<u>Batch B327509 - IC No Prep - EPA 300.0 REV 2.1</u>												
Calibration Blank (B327509-CCB1)					Prepared & Analyzed: 03/06/23							
Chloride	0.00	mg/L										
Calibration Check (B327509-CCV1)					Prepared & Analyzed: 03/06/23							
Chloride	4.95	mg/L		5.000		99	90-110					
<u>Batch B327510 - IC No Prep - EPA 300.0 REV 2.1</u>												
Calibration Blank (B327510-CCB1)					Prepared & Analyzed: 03/06/23							
Fluoride	0.00	mg/L										
Chloride	0.194	mg/L										
Sulfate	0.00	mg/L										
Calibration Check (B327510-CCV1)					Prepared & Analyzed: 03/06/23							
Sulfate	4.91	mg/L		5.000		98	90-110					
Fluoride	4.95	mg/L		5.000		99	90-110					
Chloride	4.77	mg/L		5.000		95	90-110					
<u>Batch B327556 - No Prep - SM 2320B 1997</u>												
Duplicate (B327556-DUP2)	Sample: GC00016-16				Prepared & Analyzed: 03/07/23							
Alkalinity - carbonate as CaCO ₃	100	mg/L			125			22	10			
Alkalinity - bicarbonate as CaCO ₃	< 10	mg/L			ND				10			
<u>Batch B327620 - No Prep - SM 4500F C 1997</u>												
Calibration Blank (B327620-CCB1)					Prepared & Analyzed: 03/08/23							
Fluoride	0.00800	mg/L										
Calibration Blank (B327620-CCB2)					Prepared & Analyzed: 03/08/23							
Fluoride	0.0100	mg/L										
Calibration Check (B327620-CCV1)					Prepared & Analyzed: 03/08/23							
Fluoride	0.658	mg/L		0.7000		94	90-110					
Calibration Check (B327620-CCV2)					Prepared & Analyzed: 03/08/23							
Fluoride	0.703	mg/L		0.7000		100	90-110					
<u>Batch B327644 - IC No Prep - EPA 300.0 REV 2.1</u>												
Calibration Blank (B327644-CCB1)					Prepared & Analyzed: 03/07/23							
Chloride	0.176	mg/L										
Sulfate	0.00	mg/L										
Calibration Check (B327644-CCV1)					Prepared & Analyzed: 03/07/23							
Sulfate	4.86	mg/L		5.000		97	90-110					
Chloride	4.67	mg/L		5.000		93	90-110					



NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

- Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level.
The associated blank spike was acceptable.

A handwritten signature in black ink that reads "Gail Schindler".

Certified by: Gail Schindler, Project Manager



APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND
 EDW-257-301

SAR-3: Depth to Groundwater Measurements
 Plant: EDW
 Event: EDW-23Q1-845 3013-R3

Well	Unique ID	Date	Time	Depth to Water, ft. b.m.p	Transducer	Serial No.	Batt. %	DL	Initials	Notes
AP05S	EDW_AP05#S	2/27/23	1207	46.82					APP	TD 40.07
AP07S	EDW_AP07#S		1242	24.30					AM	TD 37.34
AP08	EDW_AP08		1318	7.63					APP	TD 21.97
AP09	EDW_AP09		1305	0.61					TD	20.69
AW-01	EDW_AW-01		1219	4.70					TD	21.42
AW-05	EDW_AW-05		1320	7.61					AM	
AW-06	EDW_AW-06		1202	26.89					TD	
AW-08	EDW_AW-08		1200	24.58					AM	
AW-09	EDW_AW-09		1219	25.94					AM	
AW-10	EDW_AW-10		1147	1.55					APP	
AW-11	EDW_AW-11		1134	2.69					AM	
AW-14	EDW_AW-14		1131	6.88						
AW-15	EDW_AW-15		1056	8.92						
AW-155	EDW_AW-15#S		1054	10.05						
AW-16	EDW_AW-16		1222	24.60					AM	
AW-17	EDW_AW-17		1208	24.85						
AW-18	EDW_AW-18		1204	24.96						
AW-19	EDW_AW-19		1130	13.38						
AW-21	EDW_AW-21		1151	16.75					APP	Could not find
AW-23	EDW_AW-23		~	~					AM	
EMW-05	EDW_EMW-05		1250	20.28					APP	
SG-01	EDW_YLRIVER		1234	441.0					AM	
XPW01A	EDW_XPW01A_pore		1324	11.16					APP	
XPW02	EDW_XPW02_pore		1244	19.78					TD	12.52
XPW03	EDW_XPW03_pore		1301	16.34					TD	12.54
AW-09	EDW_AW-09	2/01/23	1140	TD 23.01	unable to close casing	APP	100%		TD 52.11	
AW-13	EDW_AW-13	2/01/23	1144	APP	TD 22	11.30 at 1156 AM	100%	TD 52.11		
AW-15	EDW_AW-15	2/01/23	1051	APP	EMW02	18.05 at 1226 AM	100%	TD 52.11		
AW-12	EDW_AW-12	2/01/23	1156	APP	EMW03	21.22 at 12.23 APP	100%	TD 52.11		
AW-20	EDW_AW-20	2/01/23	1615	AM	EMW04	19.48 at 1304 AM	100%	TD 52.11		

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
 EDW-257-301

WELL/SAMPLE POINT	APW05 AP05S	Purge Method:	Portable
Date:	2-29-23	Start Time:	13:48
		Finish/Sample Time:	14:40
Well Depth (Bottom) From MP:	39.85 ft	Min. Purge Volume:	1.0 Gal / L
Depth to Water From MP:	5.43 ft	Total Purge Volume:	1.3 Gal / L
Water Column Length:	34.42 ft	Max Drawdown:	— ft
Well Water Volume:	5.5 Gal / L	Total Drawdown:	0.19 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	13:59	5.62	100	7.03	1,390	13.98	-81	1.29	1000+ >1000
2	13:59	5.63		7.00	1,380	14.00	-85	1.21	1000+ >1000
3	14:00	5.60		7.01	1,390	14.01	-87	1.16	1000+ >1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: MoriBa

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL)
1	2.5, L, HNO ₃
1	1000, mL, P

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 5.62 ft

Comments

Sampler's Signature: K. W. M.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Site: Edwards Ash Pond
EDWARDS POWER PLANT, ASH POND
EDW-257-301

WELL/SAMPLE POINT AP07S Purge Method: portable pump
 Date: 2-28-23 Start Time: 12:35 Finish/Sample Time: 13:38

Well Depth (Bottom) From MP: 97.25 ft Min. Purge Volume: 1.0 Gal / L
 Depth to Water From MP: 24.55 ft Total Purge Volume: 1.3 Gal / L
 Water Column Length: 12.70 ft Max Drawdown: - ft
 Well Water Volume: 2.0 Gal / L Total Drawdown: 1.78 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	12:45	24.99	100	7.28	3,800	13.47	111	7.00	1000 ^f
2	12:40	25.06		7.15	3,840	13.49	107	6.97	1000 ^f
3	12:47	25.09		7.13	3,820	13.53	100	6.83	1000 ^f
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hanba

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL)
1	2.5 L HNO ₃
1	1000 mL P

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 26.33 ft

Comments

Sampler's Signature: Nyde

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-01 Purge Method: Portable pump
Date: 2-28-23 Start Time: 14:48 Finish/Sample Time: 15:41

Well Depth (Bottom) From MP: 21.12 ft Min. Purge Volume: 1.0 Gal / L
Depth to Water From MP: 5.47 ft Total Purge Volume: 1.3 Gal / L
Water Column Length: 15.65 ft Max Drawdown: — ft
Well Water Volume: 2.5 Gal / L Total Drawdown: 0.33 ft

Reading (Units)	Time'	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/l	Turb NTU
1	15:00	5.62	100	7.03	1380	13.27	-86	1.18	>1000
2	15:01	5.64		7.02	1390	13.29	-87	1.11	>1000
3	15:02	5.63		6.98	1400	13.31	-89	1.07	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL)
1	2.5 L HNO ₃
1	1/2 gal, NaOH

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 5.80 ft

Comments

Sampler's Signature: H. J. L.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Site: Edwards Ash Pond
EDWARDS POWER PLANT, ASH POND
EDW-257-301

WELL/SAMPLE POINT AW-05 Purge Method: Blower

Date: 2-28-23 Start Time: 11:03 Finish/Sample Time: 11:57

Well Depth (Bottom) From MP: 22.45 ft Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 7.83 ft Total Purge Volume: 1.3 Gal / L

Water Column Length: 14.62 ft Max Drawdown: — ft

Well Water Volume: 2.3 Gal / L Total Drawdown: 0.23 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	11:19	7.98	100	7.31	1,450	12.74	169	4.10	>1000
2	11:20	7.97		7.27	1,450	12.71	166	3.94	>1000
3	11:21	8.01		7.24	1,440	12.69	162	3.89	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBe

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL)
1	2.5 L HNO ₃
1	10.00 mL P

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 8.06 ft

Comments

Sampler's Signature: K. Givens

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-06	Purge Method:	Compressed
Date:	29-Feb-23	Start Time:	0904
Well Depth (Bottom) From MP:	42.30 ft	Min. Purge Volume:	1 Gal / L
Depth to Water From MP:	26.79 ft	Total Purge Volume:	1.4 Gal / L
Water Column Length:	ft	Max Drawdown:	ft
Well Water Volume:	Gal / L	Total Drawdown:	ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	0927	28.91	100	7.54	972	11.15	-53	2.01	0.0
2	0928	29.05		7.46	970	11.22	-62	1.77	528
3	0929	29.20		7.39	971	11.21	-65	1.57	1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250mL) 1 L
	11M23 (P, 250 L)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 33.47 ft

Comments depth to bottom stops at pump

Sampler's Signature: Austin Moon

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
 EDW-257-301

WELL/SAMPLE POINT	<u>AW-08</u>	Purge Method:	<u>Compressed</u>
Date:	<u>28-Feb-23</u>	Start Time:	<u>1457</u>
Well Depth (Bottom) From MP:	<u>46.52</u> ft	Min. Purge Volume:	<u>1</u> Gal <u>L</u>
Depth to Water From MP:	<u>24.60</u> ft	Total Purge Volume:	<u>6.9</u> Gal / L
Water Column Length:	ft	Max Drawdown:	ft
Well Water Volume:	Gal / L	Total Drawdown:	ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	<u>1810</u>	<u>25.61</u>	<u>100</u>	<u>9.35</u>	<u>750</u>	<u>13.74</u>	<u>-142</u>	<u>2.10</u>	<u>11.6</u>
2	<u>1519</u>	<u>25.71</u>		<u>9.12</u>	<u>739</u>	<u>13.71</u>	<u>-137</u>	<u>1.74</u>	<u>11.6</u>
3	<u>1512</u>	<u>25.83</u>		<u>8.92</u>	<u>729</u>	<u>13.70</u>	<u>-133</u>	<u>1.56</u>	<u>11.9</u>
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL)
1	HNO ₃ (P, 2.5L)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 31.62 ft

Comments _____

Sampler's Signature: Alvin Meek

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
 EDW-257-301

WELL/SAMPLE POINT AW-09 Purge Method: Compressor
 Date: 28-Feb-23 Start Time: 1114 Finish/Sample Time: 1205

Well Depth (Bottom) From MP: 47.24 ft Min. Purge Volume: 1 Gal/L
 Depth to Water From MP: 26.01 ft Total Purge Volume: 1.3 Gal/L
 Water Column Length: ft Max Drawdown: ft
 Well Water Volume: Gal/L Total Drawdown: ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1133	28.53	100	7.03	1340	25.2	-129	1.17	104
2	1134	28.71		7.02	1340	25.4	-130	1.08	95.6
3	1135	28.87		7.02	1330	25.7	-130	1.01	77.2
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hach 101

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL) <u>1L</u>
	HNO ₃ (P, 250 mL) <u>1L</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Comments: depth to bottom stops at pump

Sampler's Signature: Austin Moran

34.03 FLOW

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-10 Purge Method: baffler

Date: 2/28/2023 Start Time: 1449 Finish/Sample Time: 1545

Well Depth (Bottom) From MP: — ft Min. Purge Volume: — Gal / L

Depth to Water From MP: 2.00 ft Total Purge Volume: 1000 Gal / L (1)

Water Column Length: — ft Max Drawdown: — ft

Well Water Volume: — Gal / L Total Drawdown: 3.65 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1301	3.37	100	7.03	2030	12.38	-88	0.89	>1000
2	1303	3.50	100	7.01	2030	12.31	-88	0.86	>1000
3	1305	3.65	100	7.00	2030	12.34	-89	0.82	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hoykin

Sample Appearance:

Odor: None Slight Mod. StrongColor: None Slight Mod. StrongTurb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	(P,2.5L HNO ₃)

(3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 5.65 ft

Comments

Sampler's Signature: M. J. Smith

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-11 Purge Method: Blaster

Date: 2/28/2023 Start Time: 1328 Finish/Sample Time: 1424

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 6.23 ft Total Purge Volume: 1000 Gal / L (m³)

Water Column Length: _____ ft Max Drawdown: _____ ft

Well Water Volume: _____ Gal / L Total Drawdown: 0.05 ft

APR 2/28/23										
Reading (Units)	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb	
1	1341	6.35	100	7.18	1660	10.90	-100	0.98	>1000	
2	1343	6.30	100	7.17	1650	10.85	-101	0.95	>1000	
3	1345	6.30	100	7.17	1650	10.81	-103	0.91	>1000	
4										
5										
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA	

Field Meter: Hanna

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) 100mL
1	(P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: at 6.30 ft
Apr 2/28/23

Comments _____

Sampler's Signature:

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Site: Edwards Ash Pond

WELL/SAMPLE POINT AW-14 Purge Method: baffler
 Date: 2/28/2023 Start Time: 1217 Finish/Sample Time: 1313

Well Depth (Bottom) From MP: ft Min. Purge Volume: — Gal / L
 Depth to Water From MP: 6.93 ft Total Purge Volume: 1000 Gal / L ml
 Water Column Length: ft Max Drawdown: — ft
 Well Water Volume: Gal / L Total Drawdown: 7.04 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1230	9.20	100	6.97	1690	11.50	-60	1.24	253
2	1232	9.42	100	6.97	1690	11.48	-61	1.20	257
3	1234	9.64	100	6.98	1696	11.44	-63	1.11	261
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hach

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) <u>1000 mL</u>
1	<u>(P, 250mL, HNO₃)</u>

(3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 13.97 ft

Comments _____

Sampler's Signature: 

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
 EDW-257-301

WELL/SAMPLE POINT AW-15 Purge Method: blaaffer

Date: 2/27/2023 Start Time: 1430 Finish/Sample Time: 1528

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L
 Depth to Water From MP: 0.00 ft Total Purge Volume: 1000 Gal / L (mL)
 Water Column Length: _____ ft Max Drawdown: _____ ft
 Well Water Volume: _____ Gal / L Total Drawdown: 0.15 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1446	0.15	100	6.78	1850	12.98	-97	1.05	86.0
2	1448	0.15	100	6.75	1850	12.92	-100	1.02	103
3	1450	0.15	100	6.75	1840	12.84	-102	1.04	107
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hach

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) (100mL)
1	(P, 250mL, HNO ₃)

(3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 0.15 ft

Comments

Sampler's Signature:

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
 EDW-257-301

WELL/SAMPLE POINT AW-15S Purge Method: blaster
 Date: 2/27/2023 Start Time: 1530 Finish/Sample Time: 1630

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L
 Depth to Water From MP: 10.04 ft Total Purge Volume: 1000 Gal / L 600
 Water Column Length: _____ ft Max Drawdown: _____ ft
 Well Water Volume: _____ Gal / L Total Drawdown: 2.36 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1545	10.92	100	6.82	1670	11.80	119	0.73	109
2	1547	11.00	100	6.82	1670	11.78	118	0.66	93.7
3	1550	11.08	100	6.81	1670	11.76	117	0.64	76.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hach

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

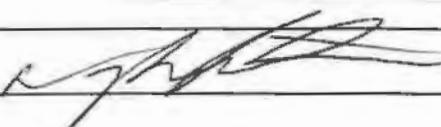
Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) <u>100 mL</u>
1	(P, 2.5L, HNO ₃)

(3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW 12.40

Comments _____

Sampler's Signature: 

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-16 Purge Method: Compressor
 Date: 28-Feb-23 Start Time: 1213 Finish/Sample Time: 1308

Well Depth (Bottom) From MP: 56.79 ft Min. Purge Volume: 1 Gal / 0
 Depth to Water From MP: 24.89 ft Total Purge Volume: 1.3 Gal / 0
 Water Column Length: ft Max Drawdown: ft
 Well Water Volume: Gal / L Total Drawdown: ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1231	25.64	100	6.83	1950	13.26	-91	1.54	38.1
2	1232	25.64	1	6.84	1950	13.28	-93	1.17	30.2
3	1233	25.64	1	6.83	1950	13.25	-97	0.97	29.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horizon

Sample Appearance:

Odor: None Slight Mod. StrongColor None Slight Mod. StrongTurb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL) 1 L
	HNO ₃ (P, 25L)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 25.64 ft

Comments _____

Sampler's Signature: Clinton Moon

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-17	Purge Method:	Compressor
Date:	28 Feb-23	Start Time:	1013
Well Depth (Bottom) From MP:	56.49 ft	Min. Purge Volume:	1 Gal / L
Depth to Water From MP:	56.56 ft	Total Purge Volume:	1.7 Gal / L
Water Column Length:	ft	Max Drawdown:	ft
Well Water Volume:	Gal / L	Total Drawdown:	ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1031	26.97	100	6.91	1610	24.6	-103	0.53	968
2	1032	26.98	1	6.91	1610	25.0	-06	0.44	988
3	1033	27.01	1	6.90	1610	25.5	-08	0.36	869
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horrible

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL)
	HNO ₃ (P, 250mL)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 27.25 ft

Comments

Sampler's Signature: Austin Moon

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-18 Purge Method: Compressor
Date: 2/27/23 Start Time: 1545 Finish/Sample Time: 1650

Well Depth (Bottom) From MP: 50.68 ft Min. Purge Volume: 1 Gal / 0
Depth to Water From MP: 27.00 ft Total Purge Volume: 1.5 Gal / 0
Water Column Length: ft Max Drawdown: ft
Well Water Volume: Gal / L Total Drawdown: ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1601	28.10	100	6.97	1640	12.18	-83	0.95	402
2	1602	28.17	1	6.97	1650	12.24	-89	0.72	497
3	1603	28.25	1	6.93	1660	12.25	-94	0.77	499
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P, 250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) <u>1L</u>
1	HNO ₃ (P, 2.5L) <u>1L</u>

Filtered	
Qty	Bottles
	Metals (P, 250mL, HNO ₃)
	Ammonia (P, 250mL, H ₂ SO ₄)
	General (P, 500mL)

Final DTW: 28.35 ft

Comments: Depth to bottom stops at pump

Sampler's Signature: Austin Moran

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
 EDW-257-301

WELL/SAMPLE POINT AW-19 Purge Method: Compressor

Date: 2/27/23 Start Time: 1425 Finish/Sample Time: 1429

Well Depth (Bottom) From MP: 38.60 ft Min. Purge Volume: 1 Gal 10
 Depth to Water From MP: 13.37 ft Total Purge Volume: 1.4 Gal 10

Water Column Length: ft Max Drawdown: ft

Well Water Volume: Gal / L Total Drawdown: ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1448	14.32	100	7.02	1080	12.88	49	2.17	185
2	1449	14.34	1	7.01	1080	12.86	33	2.01	184
3	1450	14.36	1	7.00	1080	12.86	20	1.89	185
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Herrick

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) <u>L</u>
1	HNO ₃ (P, 2.5L)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 16.03 ft

Comments Depth to bottom stops at pump

Sampler's Signature: Audra M. Morgan

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-21	Purge Method:	<u>Bladder</u>		
Date:	<u>2-28-23</u>	Start Time:	<u>09:08</u>	Finish/Sample Time:	<u>10:05</u>
Well Depth (Bottom) From MP:	<u>33.53</u> ft	Min. Purge Volume:	<u>1.0</u> Gal / @		
Depth to Water From MP:	<u>16.34</u> ft	Total Purge Volume:	<u>1.3</u> Gal / L		
Water Column Length:	<u>17.19</u> ft	Max Drawdown:	<u>—</u> ft		
Well Water Volume:	<u>2.7</u> Gal / L	Total Drawdown:	<u>1.20</u> ft		

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	09:22	17.10	100	7.89	8712	12.13	228	6.60	136
2	09:23	17.12		7.95	8754	12.14	227	6.64	133
3	09:24	17.13		7.99	8728	12.15	227	6.72	125
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hanna

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL)
1	25 mL HNO ₃
1	1000 mL P

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 17.54 ft

Comments

Sampler's Signature: K. Brown

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT	<u>XPW01A</u>	Purge Method:	<u>B1000L</u>
Date:	<u>2-28-23</u>	Start Time:	<u>10:08</u>
Well Depth (Bottom) From MP:	<u>36.34</u>	ft top of pump	Finish/Sample Time: <u>10:48</u>
Depth to Water From MP:	<u>11.32</u>	ft	Min. Purge Volume: <u>1.0</u> Gal / L
Water Column Length:	<u>25.02</u>	ft	Total Purge Volume: <u>1.3</u> Gal / L
Well Water Volume:	<u>4.0</u>	Gal / L	Max Drawdown: <u>—</u> ft
			Total Drawdown: <u>0.25</u> ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	<u>10:23</u>	<u>11.45</u>	<u>100</u>	<u>11.73</u>	<u>1,970</u>	<u>10.96</u>	<u>66</u>	<u>52.4</u>	<u>56.4</u>
2	<u>10:24</u>	<u>11.47</u>		<u>11.75</u>	<u>1,950</u>	<u>10.98</u>	<u>59</u>	<u>51.8</u>	<u>55.0</u>
3	<u>10:25</u>	<u>11.48</u>		<u>11.76</u>	<u>1,970</u>	<u>10.97</u>	<u>54</u>	<u>49.1</u>	<u>52.9</u>
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBA

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL)
1	10ard, ML, P

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW: 11.57 ft

Comments

Sampler's Signature: K. Keller

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT XPW02 Purge Method: Compressor

Date: 28-Feb-23 Start Time: 1356 Finish/Sample Time: 1427

Well Depth (Bottom) From MP: 40.62 ft Min. Purge Volume: 1 Gal / L

Depth to Water From MP: 20.13 ft Total Purge Volume: 1.3 Gal / L

Water Column Length: 20.50 ft Max Drawdown: 0 ft

Well Water Volume: 100 Gal / L Total Drawdown: 0 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1413	20.30	100	12.20	4110	17.07	-143	200	18.00
2	1414	20.30	1	12.19	4140	13.98	-143	1.84	208
3	1415	20.30	1	12.19	4140	13.91	-148	1.69	19.8
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) 1L

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ S0 ₄)
	General (P,500mL)

Final DTW: 20.30 ft

Comments: depth to bottom stops at pump

Sampler's Signature: Margie Moon

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
 EDW-257-301

WELL/SAMPLE POINT XPW03 Purge Method: b/aff

Date: 2/28/2023 Start Time: 1551 Finish/Sample Time: 1633

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L
 Depth to Water From MP: 16.34 ft Total Purge Volume: 1000 Gal / L (w)
 Water Column Length: _____ ft Max Drawdown: _____ ft
 Well Water Volume: _____ Gal / L Total Drawdown: 0.21 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	<u>1610</u>	<u>16.55</u>	<u>100</u>	<u>11.92</u>	<u>1940</u>	<u>15.09</u>	<u>-46</u>	<u>2.75</u>	<u>104</u>
2	<u>1612</u>	<u>16.55</u>	<u>100</u>	<u>11.92</u>	<u>1930</u>	<u>15.13</u>	<u>-49</u>	<u>2.68</u>	<u>88.9</u>
3	<u>1614</u>	<u>16.55</u>	<u>100</u>	<u>11.94</u>	<u>1930</u>	<u>15.07</u>	<u>-51</u>	<u>2.56</u>	<u>78.1</u>
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiz

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) <u>1000 mL</u>

(2)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ S0 ₄)
	General (P,500mL)

Final DTW 16.55 ft

Comments

Sampler's Signature:

Multiparameter Meter Field Calibration Checklist

Field Personnel:	<i>AP</i>			Location:	<i>Edwards Power Station</i>					
Weather:	<i>54°C cloudy, rain wind west</i>			Environment:	<i>grass, mud</i>					
Multiparameter Water Meter	Make:	<i>Hart</i>	Model:	<i>D5003</i>	Serial Number:	<i>U46V1FVTF</i>				
Water Level Meter	Make:	<i>Heron</i>	Model:	<i>Doppler</i>	Serial Number:	<i>3717-7</i>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.	
pH 4.00a	<i>3.75</i>	s.u.	± 0.1 s.u.	<i>F</i>	<i>YES</i>	<i>4.00</i>	MSI	L344-09	12/14/2023	
pH 7.00a	<i>6.87</i>	s.u.	± 0.1 s.u.	<i>F</i>	<i>YES</i>	<i>7.00</i>	MSI	L343-07	12/9/2023	
pH 10.00a	<i>10.06</i>	s.u.	± 0.1 s.u.	<i>F</i>	<i>NO</i>	<i>-</i>	MSI	M082-04	3/25/2024	
SC Zero (DI)	<i>0.0</i>	$\mu\text{s}/\text{cm}$	$0 < 25 \mu\text{s}/\text{cm}$	<i>F</i>	<i>N/A</i>	<i>-</i>	Pace Labs	N/A (DI)	N/A (DI)	
SC 2000	<i>20.20</i>	$\mu\text{s}/\text{cm}$	$\pm 5\%$	<i>F</i>	<i>N/A</i>	<i>-</i>	Geotech	2GE1442	May-23	
ORP	<i>244</i>	mV	± 15 mV	<i>F</i>	<i>NO</i>	<i>-</i>	InSitu	2G1762	Jun-23	
DO (Zero pt)	<i>0.00</i>	mg/L	± 0.1	<i>F</i>	<i>NO</i>	<i>-</i>	Macron	#000228049	8/26/2025	
DO (Saturated)	<i>10.7</i>	%	97-100%	<i>F</i>	<i>NO</i>	<i>-</i>	Pace Labs	N/A (DI)	N/A (DI)	
Turbidity (DI)	<i>0.0</i>	NTU	<2 NTU	<i>F</i>	<i>NO</i>	<i>-</i>	Pace Labs	N/A (DI)	N/A (DI)	
Approx. every 4 hrs, unless only one well										
ICV (Initial Calibration Verification)					Time:	<i>1615</i>	<i>244 @ 16°C</i>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.		
pH 4.00b	<i>3.99</i>	s.u.	± 0.15 s.u.	<i>F</i>	<i>-</i>	Geotech	2GC243	Mar-24		
pH 7.00b	<i>6.88</i>	s.u.	± 0.15 s.u.	<i>F</i>	<i>-</i>	Geotech	2GC931	Mar-24		
pH 10.00b	<i>10.04</i>	s.u.	± 0.15 s.u.	<i>F</i>	<i>-</i>	Geotech	2GE820	May-24		
SC 1000	<i>10.10</i>	$\mu\text{s}/\text{cm}$	$\pm 5\%$	<i>F</i>	<i>-</i>	Ricca	4205H64	May-24		
Approx. every 4 hrs, unless only one well										
CCV (Continued Calibration Verification):					Time:	<i>1645</i>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.	
pH 4.00a	<i>4.01</i>	s.u.	± 0.1 s.u.	<i>F</i>	<i>NO</i>	<i>N/A</i>	MSI	L315-04	11/22/2023	
pH 7.00a	<i>7.02</i>	s.u.	± 0.1 s.u.	<i>F</i>	<i>-</i>	<i>-</i>	MSI	L172-33	6/23/2023	
pH 10.00a	<i>10.07</i>	s.u.	± 0.1 s.u.	<i>F</i>	<i>-</i>	<i>-</i>	MSI	L354-22	1/5/2024	
SC 1000	<i>10.33</i>	$\mu\text{s}/\text{cm}$	$\pm 5\%$	<i>F</i>	<i>-</i>	<i>-</i>	Ricca	2108D48	Jul-23	
DO (Zero pt)	<i>0.00</i>	mg/L	± 0.1 mg/L	<i>F</i>	<i>-</i>	<i>-</i>	Macron	#000228049	8/26/2025	
Turbidity (DI)	<i>0.0</i>	NTU	<2 NTU	<i>F</i>	<i>-</i>	<i>-</i>	Pace Labs	N/A (DI)	N/A (DI)	
Approx. every 4 hrs, unless only one well										
CCV (Continued Calibration Verification):					Time:					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.	
4.00a		s.u.	± 0.1 s.u.				MSI	L315-04	11/22/2023	
7.00a		s.u.	± 0.1 s.u.				MSI	L172-33	6/23/2023	
10.00a		s.u.	± 0.1 s.u.				MSI	L354-22	1/5/2024	
SC 1000		$\mu\text{s}/\text{cm}$	$\pm 5\%$				Ricca	2108D48	Jul-23	
DO (Zero pt)		mg/L	± 0.1 mg/L				Macron	#000228049	8/26/2025	
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)	
Comments:										
Signature:	<i>AP</i>			Date:	<i>2/27/2023</i>					

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore		Location:	Edwards					
Weather:	59°fL clouds ^{wind} 1t mph NE		Environment:	Mud Gras					
Multiparameter Water Meter	Make:	Horiiba	Model:	V-5000	Serial Number:	PW26YJD3			
Water Level Meter	Make:	WT	Model:	Heron	Serial Number:	11FF2209305ML			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	✓	N	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.93	s.u.	±0.1 s.u.	✓			MSI	L343-07	12/9/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	✓			MSI	M082-04	3/25/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	2GE1442	May-23
ORP	777	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.05	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	95.8	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	1358			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.07	s.u.	±0.15 s.u.	✓	N/A	Geotech	2GC243	Mar-24	
pH 7.00b	6.99	s.u.	±0.15 s.u.	✓		Geotech	2GC931	Mar-24	
pH 10.00b	10.03	s.u.	±0.15 s.u.	✓		Geotech	2GE820	May-24	
SC 1000	980	µS/cm	±5%	✓		Ricca	4205H64	May-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1700			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	✓	N	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.06	s.u.	±0.1 s.u.	✓			MSI	L172-33	6/23/2023
pH 10.00a	10.00	s.u.	±0.1 s.u.	✓			MSI	L354-22	1/5/2024
SC 1000	1010	µS/cm	±5%	✓			Ricca	2108D48	Jul-23
DO (Zero pt)	0.05	mg/L	±0.1 mg/L	✓			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	✓			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Austin Moore	Date:	27-Feb-23
------------	--------------	-------	-----------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton			Location:	Edwards				
Weather:	46° - 52° L partly cloudy wind E 7 mph			Environment:	grass, gravel, mud				
Multiparameter Water Meter	Make:	HoriBr	Model:	J5000	Serial Number:	YLAHSAHA			
Water Level Meter	Make:	Heron	Model:	Dipart	Serial Number:	3717-T			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L343-07	12/9/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	N/A	MSI	M082-04	3/25/2024
SC Zero (DI)	18	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NO	N/A	Geotech	2GE1442	May-23
ORP	242	mV	±15 mV	P	NO	N/A	InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.2	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 1700

240 @ 17°C

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	N/A	Geotech	2GC243	Mar-24
pH 7.00b	6.88	s.u.	±0.15 s.u.	P	N/A	Geotech	2GC931	Mar-24
pH 10.00b	10.06	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE820	May-24
SC 1000	1020	µS/cm	±5%	P	N/A	Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1649

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L172-33	6/23/2023
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L354-22	1/5/2024
SC 1000	1030	µS/cm	±5%	P	NO	N/A	Ricca	2108D48	Jul-23
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	2/28/2023
------------	--	-------	-----------

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND
 EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moon			Location:	Edwards Power Station				
Weather:	63-37° sunny ^{wind} NW			Environment:	Grass Mud				
Multiparameter Water Meter	Make:	HoriBn	Model:	V-5000	Serial Number:	PW2GJTD3			
Water Level Meter	Make:	Holon	Model:	Water tape	Serial Number:	1FF2209305ML			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	P			MSI	L343-07	12/9/2023
pH 10.00a	10.04	s.u.	±0.1 s.u.	P			MSI	M082-04	3/25/2024
SC Zero (DI)	18.95	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	20.31	µS/cm	±5%				Geotech	2GE1442	May-23
ORP	294	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.98	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.58	NTU	<2 NTU	+	+	+	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0830

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	N	Geotech	2GC243	Mar-24
pH 7.00b	6.94	s.u.	±0.15 s.u.	P	N	Geotech	2GC931	Mar-24
pH 10.00b	9.96	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24
SC 1000	10.75	µS/cm	±5%	+	+	Ricca	420SH64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1630

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.	P			MSI	L172-33	6/23/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.	P			MSI	L354-22	1/5/2024
SC 1000	10.20	µS/cm	±5%	P			Ricca	2108D48	Jul-23
DO (Zero pt)	0.06	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	+	+	+	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Austin Moon	Date:	28-Feb-23
------------	-------------	-------	-----------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Kyle Lane			Location:	Edwards Power					
Weather:	37° to 52° Cloudy			Environment:	Wet / Muddy					
Multiparameter Water Meter	Make:	Horiba			Model:	V-5000			Serial Number:	V#U FV+F
Water Level Meter	Make:	Heron			Model:	water tap			Serial Number:	19PF2202131ML
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.	
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L344-09	12/14/2023	
pH 7.00a	7.04	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023	
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024	
SC Zero (DI)	20.48	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)	
SC 2000	20.20	µS/cm	±5%				Geotech	2GE1442	May-23	
ORP	244	mV	±15 mV				InSitu	2G1762	Jun-23	
DO (Zero pt)	0.84	mg/L	±0.1				Macron	#000228049	8/26/2025	
DO (Saturated)	9.94	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)	
Turbidity (DI)	0.26	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)	

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	10:52			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.96	s.u.	±0.15 s.u.	P	N/A	Geotech	2GC243	Mar-24	
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24	
pH 10.00b	10.11	s.u.	±0.15 s.u.			Geotech	2GE820	May-24	
SC 1000	10.44	µS/cm	±5%	↓	↓	Ricca	4205H64	May-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	X			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	X	s.u.	±0.1 s.u.	X	X	X	MSI	L315-04	11/22/2023
pH 7.00a	X	s.u.	±0.1 s.u.	X	X	X	MSI	L172-33	6/23/2023
pH 10.00a	X	s.u.	±0.1 s.u.	X	X	X	MSI	L354-22	1/5/2024
SC 1000	X	µS/cm	±5%	X	X	X	Ricca	2108D48	Jul-23
DO (Zero pt)	X	mg/L	±0.1 mg/L	X	X	X	Macron	#000228049	8/26/2025
Turbidity (DI)	X	NTU	<2 NTU	X	X	X	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	14:57			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.05	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L315-04	11/22/2023
7.00a	7.04	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a	10.00	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000	10.02	µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)	0.04	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.49	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Kyle Lane	Date:	2-28-23
------------	-----------	-------	---------



Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP			Location:	Edwards Power Station				
Weather:	54°C cloudy rain wind W 15 mph			Environment:	Yards mvt				
Multiparameter Water Meter	Make:	Horiba	Model:	D5000	Serial Number:	U4EV1FV7F			
Water Level Meter	Make:	Heron	Model:	Dipper?	Serial Number:	3717-7			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.75	s.u.	±0.1 s.u.	P	Yes	4.00	MSI	L344-09	12/14/2023
pH 7.00a	6.87	s.u.	±0.1 s.u.	P	Yes	7.00	MSI	L343-07	12/9/2023
pH 10.00a	10.06	s.u.	±0.1 s.u.	P	No	—	MSI	M082-04	3/25/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	20.20	µS/cm	±5%	P	No	—	Geotech	2GE1442	May-23
ORP	2411	mV	±15 mV	P	No	—	InSitu	2G1762	Jun-23
DO (Zero pt)	0.00	mg/L	±0.1	P	No	—	Macron	#000228049	8/26/2025
DO (Saturated)	10.7	%	97-100%	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 1615

2411 @ 16°C

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Geotech	2GC243	Mar-24
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	—	Geotech	2GC931	Mar-24
pH 10.00b	10.04	s.u.	±0.15 s.u.	P	—	Geotech	2GE820	May-24
SC 1000	10.10	µS/cm	±5%	P	—	Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1645

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	No	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	—	—	MSI	L172-33	6/23/2023
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	—	—	MSI	L354-22	1/5/2024
SC 1000	10.30	µS/cm	±5%	—	—	—	Ricca	2108D48	Jul-23
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	—	—	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	—	—	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	2/27/2023
------------	--	-------	-----------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore			Location:	Edwards			
Weather:	59°-ft cloudy 14 mph ^{wind} NE			Environment:	Mud Gras			
Multiparameter Water Meter	Make:	Horiha	Model:	U-5000	Serial Number:	PW261JD		
Water Level Meter	Make:	WT	Model:	Heron	Serial Number:	11FF2209305ML		
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	N/A	MSI	L344-09
pH 7.00a	6.93	s.u.	±0.1 s.u.				MSI	L343-07
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	M082-04
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	2GE1442
ORP	244	mV	±15 mV				InSitu	2G1762
DO (Zero pt)	0.05	mg/L	±0.1				Macron	#000228049
DO (Saturated)	—	%	97-100%				Pace Labs	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)
Approx. every 4 hrs, unless only one well								

ICV (Initial Calibration Verification)

Time: 1358

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	N/A	Geotech	2GC243	Mar-24
pH 7.00b	6.99	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	10.03	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	980	µS/cm	±5%			Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1700

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000	1010	µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)	0.05	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Austin Moore	Date:	27-Feb-23
------------	--------------	-------	-----------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

GBO-SAB
GC00016-16 8/14

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2		
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey						
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp				REGULATORY AGENCY		
		Address: see Section A				NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:				UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:				Site Location	IL	
Requested Due Date/TAT:	10 day	Project Number: 2285	Profile #:			STATE:		

ITEM #	Section D Required Client Information	Valid Matrix Codes		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	Preservatives		Y/N	Analysis Test ↓	EDW_257_301	Residual Chlorine (Y/N)	Project No./Lab I.D.
		MATRIX	CODE			DATE	TIME		# OF CONTAINERS	H ₂ SO ₄					
1	AP05S	WT	6	2/28/23	1440	3	X	X							
2	AP07S	WT	6	2/28/23	1328	3	X	X							
3	AW-01	WT	6	2/28/23	1541	3	X	X							
4	AW-05	WT	6	2/28/23	1157	3	X	X							
5	AW-06	WT	6	2/28/23	1003	3	X	X							
6	AW-08	WT	6	2/28/23	1440 15:57	3	X	X							
7	AW-09	WT	6	2/28/23	1205	3	X	X							
8	AW-10	WT	6	2/28/23	1545	3	X	X							
9	AW-11	WT	6	2/28/23	1424	3	X	X							
10	AW-14	WT	6	2/28/23	1313	3	X	X							
11	AW-15														
12	AW-15S														
13	AW-16	WT	6	2/28/23	1308	3	X	X							
14	AW-17	WT	6	2/28/23	1106	3	X	X							
15	AW-18														
16	AW-19														

ADDITIONAL COMMENTS RELINQUISHED BY / AFFILIATION DATE TIME ACCEPTED BY / AFFILIATION DATE TIME SAMPLE CONDITIONS

EDW-23Q1-Rev 1

[Signature] 2/26/23

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

Aaron Lomberger

SIGNATURE of SAMPLER:

[Signature] DATE Signed (MM/DD/YY): 02/28/23

Temp in °C Received on ice (Y/N) Custody Sealed Cooler (Y/N) Samples intact (Y/N)

Vern Wagner 3-1-23 707
Courier

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

G-B04667-04
SPB

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey			
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY		
		Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location:	IL	
Requested Due Date/TAT:	10 day	Project Number: 2285	Profile #:		

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./ Lab I.D.
				MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)			DATE	TIME		
1	AP05S										
2	AP07S										
3	AW-01										
4	AW-05										
5	AW-06										
6	AW-08										
7	AW-09										
8	AW-10										
9	AW-11										
10	AW-14										
11	AW-15	WT G 2/27/23 1528									
12	AW-15S	WT G 2/27/23 1630									
13	AW-16										
14	AW-17										
15	AW-18	WT G 2/27/23 1650									
16	AW-19	WT G 2/27/23 1820									
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q1-Rev 1		<i>Aaron J. Voelker</i>	2/27/23	1782	<i>Vance W. Jones</i>	2-28-23	720	1.3	Y	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER: <i>Aaron J. Voelker</i>			
SIGNATURE of SAMPLER: <i>Aaron J. Voelker</i>			
DATE Signed (MM/DD/YY): 02/27/23		Samples intact (Y/N)	
Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	

Covier

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

GC00016-16
SAB

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 2 of 2								
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey												
Address: 13498 E. 900th St		Copy To: Jason Stuckey	Company Name: Vistra Corp											
			Address: see Section A											
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	REGULATORY AGENCY											
Phone: (217) 753-8911	Fax:	Project Manager:	NPDES	GROUND WATER	DRINKING WATER									
Requested Due Date/TAT: 10 day		Project Number: 2285	UST	RCRA	OTHER	Site Location	STATE: IL							
Section D Required Client Information														
SAMPLE ID (A-Z, 0-9 / ,) Sample ID's MUST BE UNIQUE		Valid Matrix Codes MATRIX CODE DW WT WW P BL OL WP AR AR OT TS	MATRIX CODE (See valid codes to left)	SAMPLE TYPE (G=CRAB C=COMP) COLLECTED	SAMPLE TEMP AT COLLECTION	Preservatives	Y/N							
ITEM #	DATE	TIME	# OF CONTAINERS	Unpreserved	H ₂ SO ₄	HNO ₃	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test	EDW 257_301	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	AW-21	2/28/23	1005	3	X	X	X							
2	SG-01			2	X	X								
3	XPW01A	2/28/23	1018	2	X	X								
4	XPW02	2/28/23	1427	2	X	X								
5	XPW03	2/28/23	1633	2	X	X								
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS				
EDW-23Q1-Rev 1		<i>[Signature]</i>		2/28/23	1723									
SAMPLER NAME AND SIGNATURE								Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples intact (Y/N)			
PRINT Name of SAMPLER: <i>Aaron Pemberton</i>								DATE Signed (MM/DD/YY): 02/28/23						
SIGNATURE of SAMPLER: <i>[Signature]</i>														

Vance Wagner 3-1-23 707
courier



Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

July 13, 2023

Brian Voelker
Vistra - Edwards
604 Pierce Boulevard
O'Fallon, IL 62269

Dear Brian Voelker:

Please find enclosed the **revised** analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Gail Schindler
Sincerely,

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com



APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GB04670

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GC00021

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GB04670-01 **Sampled:** 02/27/23 15:28
Name: AW-15 **Received:** 02/28/23 07:20
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	7.65	pCi/L			1	0.51	03/28/23 14:01		904.0 903.0

Miscellaneous - Pace Analytical - Mt. Juliet, Tn

Rad 226 and 228-
Subcontract 7.65 pCi/L 1 0.51 03/28/23 14:01 904.0 903.0

Sample: GB04670-02 **Sampled:** 02/27/23 16:30
Name: AW-15S **Received:** 02/28/23 07:20
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	1.99	pCi/L			1	0.629	03/28/23 14:01		904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.99 pCi/L 1 0.629 03/28/23 14:01 904.0 903.0

Sample: GB04670-03 **Sampled:** 02/27/23 16:50
Name: AW-18 **Received:** 02/28/23 07:20
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.69	pCi/L			1	0.391	03/28/23 14:01		904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 3.69 pCi/L 1 0.391 03/28/23 14:01 904.0 903.0

Sample: GB04670-04 **Sampled:** 02/27/23 15:29
Name: AW-19 **Received:** 02/28/23 07:20
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.59	pCi/L			1	0.663	03/28/23 14:01		904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.59 pCi/L 1 0.663 03/28/23 14:01 904.0 903.0



ANALYTICAL RESULTS

Sample: GC00021-01 **Sampled:** 02/28/23 14:40
Name: AP05S **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.12	pCi/L			1	1.15	03/31/23 17:37		904.0 903.0

Sample: GC00021-02 **Sampled:** 02/28/23 13:28
Name: AP07S **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.782 J	pCi/L			1	1.08	03/31/23 17:37		904.0 903.0

Sample: GC00021-03 **Sampled:** 02/28/23 15:41
Name: AW-01 **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.77	pCi/L			1	1.17	03/31/23 17:37		904.0 903.0

Sample: GC00021-04 **Sampled:** 02/28/23 11:57
Name: AW-05 **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.44	pCi/L			1	0.941	03/31/23 17:37		904.0 903.0



ANALYTICAL RESULTS

Sample: GC00021-05 **Sampled:** 02/28/23 10:03
Name: AW-06 **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 0.489 J pCi/L 1 0.641 03/31/23 17:37 904.0 903.0

Sample: GC00021-06 **Sampled:** 02/28/23 15:57
Name: AW-08 **Received:** 03/01/23 07:07
Matrix: Ground Water - FS

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 0.261 J pCi/L 1 0.639 03/31/23 17:37 904.0 903.0

Sample: GC00021-07 **Sampled:** 02/28/23 12:05
Name: AW-09 **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 1.12 pCi/L 1 0.614 03/31/23 17:37 904.0 903.0

Sample: GC00021-08 **Sampled:** 02/28/23 15:45
Name: AW-10 **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 1.57 pCi/L 1 0.718 04/03/23 13:45 904.0 903.0



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GC00021-09 **Sampled:** 02/28/23 14:24
Name: AW-11 **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	2.25	pCi/L			1	0.68	04/03/23 13:45		904.0 903.0

Miscellaneous - Pace Analytical - Mt. Juliet, TN

Rad 226 and 228-
Subcontract 2.25 pCi/L 1 0.68 04/03/23 13:45 904.0 903.0

Sample: GC00021-10 **Sampled:** 02/28/23 13:13
Name: AW-14 **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	1.3	pCi/L			1	0.775	04/03/23 13:45		904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.3 pCi/L 1 0.775 04/03/23 13:45 904.0 903.0

Sample: GC00021-11 **Sampled:** 02/28/23 13:08
Name: AW-16 **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	3.13	pCi/L			1	0.722	04/03/23 13:45		904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 3.13 pCi/L 1 0.722 04/03/23 13:45 904.0 903.0

Sample: GC00021-12 **Sampled:** 02/28/23 11:06
Name: AW-17 **Received:** 03/01/23 07:07
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.46	pCi/L			1	0.849	04/03/23 13:45		904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 3.46 pCi/L 1 0.849 04/03/23 13:45 904.0 903.0



ANALYTICAL RESULTS

Sample: GC00021-13

Sampled: 02/28/23 10:05

Name: AW-21

Received: 03/01/23 07:07

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	0.642 J	pCi/L			1	0.677	04/03/23 13:45		904.0 903.0



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit



APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

Revised Report - corrected AW19 collection time

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

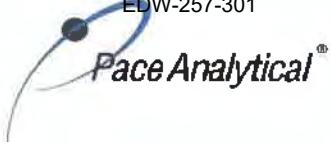
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

A handwritten signature in black ink that reads "Gail J Schindler".



Certified by: Gail Schindler, Project Manager



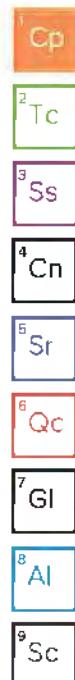
ANALYTICAL REPORT

July 12, 2023

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group: L1591301
Samples Received: 03/03/2023
Project Number: GB04670
Description: VISTRA EDWARDS
Site: 001
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615



Entire Report Reviewed By:

A handwritten signature in blue ink that reads "Haley Torrence".

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

Pace Analytical National

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GB04670

SDG:
L1591301

DATE/TIME:
07/12/23 10:46

PAGE:
Page 12 of 54

Cp: Cover Page

1

**Tc: Table of Contents**

2

**Ss: Sample Summary**

3

**Cn: Case Narrative**

4

**Sr: Sample Results**

5



AW-15 L1591301-01

5

AW-15S L1591301-02

6

AW-18 L1591301-03

7

AW-19 L1591301-04

8

Qc: Quality Control Summary

9



Radiochemistry by Method 904/9320

9

Radiochemistry by Method SM7500Ra B M

10

**Gl: Glossary of Terms**

11

**Al: Accreditations & Locations**

12

Sc: Sample Chain of Custody

13



APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND SAMPLE SUMMARY
 EDW-257-301

AW-15 L1591301-01 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/27/23 15:28	03/03/23 10:00
Radiochemistry by Method 904/9320	WG2028362	1	03/22/23 22:09		03/28/23 14:01	SWM
Radiochemistry by Method Calculation	WG2020911	1	03/15/23 15:37		03/28/23 14:01	SWM
Radiochemistry by Method SM7500Ra B M	WG2020911	1	03/15/23 15:37		03/20/23 13:43	RGT

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

AW-15S L1591301-02 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/27/23 16:30	03/03/23 10:00
Radiochemistry by Method 904/9320	WG2028362	1	03/22/23 22:09		03/28/23 14:01	SWM
Radiochemistry by Method Calculation	WG2020911	1	03/15/23 15:37		03/28/23 14:01	SWM
Radiochemistry by Method SM7500Ra B M	WG2020911	1	03/15/23 15:37		03/20/23 13:43	RGT

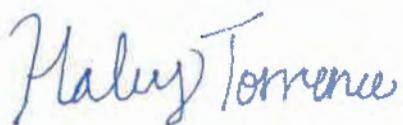
AW-18 L1591301-03 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/27/23 16:50	03/03/23 10:00
Radiochemistry by Method 904/9320	WG2028362	1	03/22/23 22:09		03/28/23 14:01	SWM
Radiochemistry by Method Calculation	WG2020911	1	03/15/23 15:37		03/28/23 14:01	SWM
Radiochemistry by Method SM7500Ra B M	WG2020911	1	03/15/23 15:37		03/20/23 13:43	RGT

AW-19 L1591301-04 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/27/23 15:29	03/03/23 10:00
Radiochemistry by Method 904/9320	WG2028362	1	03/22/23 22:09		03/28/23 14:01	SWM
Radiochemistry by Method Calculation	WG2020911	1	03/15/23 15:37		03/28/23 14:01	SWM
Radiochemistry by Method SM7500Ra B M	WG2020911	1	03/15/23 15:37		03/20/23 13:43	RGT

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ Sc

Report Revision History

Level II Report - Version 1: 03/31/23 08:44

Level II Report - Version 2: 05/22/23 10:34

Project Narrative

Fixed sample dates/times

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-15

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 01

Collected date: 07/02/23 15:28

L1591301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	5.97	+/-	0.339	0.449	03/28/2023 14:01	WG2028362
(<i>t</i>) Barium	97.7			30.0-143	03/28/2023 14:01	WG2028362
(<i>t</i>) Yttrium	107			30.0-136	03/28/2023 14:01	WG2028362

¹P²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	7.65	+/-	0.612	0.510	03/28/2023 14:01	WG2020911

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	1.68	+/-	0.509	0.241	03/20/2023 13:43	WG2020911
(<i>t</i>) Barium-133	92.9			30.0-143	03/20/2023 13:43	WG2020911

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-155 EDWARDS POWER PLANT, ASH POND SAMPLE RESULTS - 02

Collected date EDW#256301/23 16:30

L1591301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-228	1.54		0.298	0.483	03/28/2023 14:01	WG2028362	¹ Cp
(<i>t</i>) Barium	81.5			30.0-143	03/28/2023 14:01	WG2028362	² Tc
(<i>t</i>) Yttrium	97.2			30.0-136	03/28/2023 14:01	WG2028362	³ Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Combined Radium	1.99		0.458	0.629	03/28/2023 14:01	WG2020911	⁴ Cn

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-226	0.455		0.348	0.403	03/20/2023 13:43	WG2020911	⁵ Sr
(<i>t</i>) Barium-133	70.3			30.0-143	03/20/2023 13:43	WG2020911	⁶ Qc

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND

AW-18

SAMPLE RESULTS - 03

Collected date EDW-257-801/23 16:50

L1591301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	2.33		0.238	0.341	03/28/2023 14:01	WG2028362
(<i>✓</i>) Barium	94.5			30.0-143	03/28/2023 14:01	WG2028362
(<i>✓</i>) Yttrium	101			30.0-136	03/28/2023 14:01	WG2028362

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	3.69		0.473	0.391	03/28/2023 14:01	WG2020911

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	1.36		0.409	0.192	03/20/2023 13:43	WG2020911
(<i>✓</i>) Barium-133	92.2			30.0-143	03/20/2023 13:43	WG2020911

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-19 EDWARDS POWER PLANT, ASH POND SAMPLE RESULTS - 04

Collected date: EDM-2502-80123 15:29

L1591301

Radiochemistry by Method 904/9320

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Uncertainty</u>	<u>MDA</u>	<u>Analysis Date</u>	<u>Batch</u>	¹ Cp
RADIUM-228	pCi/l 1.01	+/-	0.351	pCi/l 0.593	date / time 03/28/2023 14:01	WG2028362	² Tc
(<i>t</i>) Barium	87.6			30.0-143	03/28/2023 14:01	WG2028362	³ Ss
(<i>t</i>) Yttrium	89.2			30.0-136	03/28/2023 14:01	WG2028362	⁴ Cn

Radiochemistry by Method Calculation

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Uncertainty</u>	<u>MDA</u>	<u>Analysis Date</u>	<u>Batch</u>	⁵ Sr
Combined Radium	pCi/l 1.59	+/-	0.471	pCi/l 0.663	date / time 03/28/2023 14:01	WG2020911	⁶ Qc

Radiochemistry by Method SM7500Ra B M

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Uncertainty</u>	<u>MDA</u>	<u>Analysis Date</u>	<u>Batch</u>	⁷ Gl
RADIUM-226	pCiM 0.586	+/-	0.314	pCi/l 0.297	date / time 03/20/2023 13:43	WG2020911	⁸ Al
(<i>t</i>) Barium-133	93.8			30.0-143	03/20/2023 13:43	WG2020911	⁹ Sc

WG2028362

Radiochemistry by Method 904/9320

QUALITY CONTROL SUMMARY

L1591301-01,02,03,04

Method Blank (MB)

(MB) R3907456-1	03/28/23 14:01	MB Result pCi/l	MB Qualifier +/-	MB Uncertainty pCi/l	MB MDA pCi/l
Radium-228	0.0647	0.1	0.149	0.270	
(f) Barium	101	107			
(f) Yttrium	88.0	88.0			

L159130-07 Original Sample (OS) • Duplicate (DUP)

(OS) L159130-07 03/30/23 09:48 • (DUP) R3907456-5 03/30/23 09:48		Original Result pCi/l	Original Uncertainty +/-	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty +/-	DUP MDA pCi/l	Dilution %	DUP RPD %	DUP RER %	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228		1.36	0.422	0.745	1.31	0.425	0.745	1	3.38	0.0751		20	3
(f) Barium		58.9	102	79.6	79.6	79.6	79.6						
(f) Yttrium				107	107	107	107						

Laboratory Control Sample (LCS)

(LCS) R3907456-2 03/28/23 14:01		Spike Amount pCi/l	LCS Result %	LCS Rec. %	Rec. Limits 80.0-120	LCS Qualifier
Radium-228		5.00	4.90	98.0		
(f) Barium				107		
(f) Yttrium				110		

L1591301-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1591301-02 03/28/23 14:01 • (MS) R3907456-3 03/28/23 14:01 • (MSD) R3907456-4 03/28/23 14:01		Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits 70.0-130	MS Qualifier	MSD Qualifier	RPD	MS RER	MSD RER	RPD Limits %	MS RER %	MSD RER %
Radium-228	16.7	1.54	15.1	15.7	81.1	85.0	1				4.22			20		
(f) Barium		81.5			96.2	96.7										
(f) Yttrium		97.2			98.5	94.2										

WG2020911

Radiochemistry by Method SM7500R a B M

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3903275-1	03/20/23 13:42	MB Result pCi/l	MB Qualifier +/-	MB Uncertainty pCi/l	MB MDA 0.0456	DUP RER 0.106	DUP RPD %	DUP RER Limit %
Analyte Radium-226	-0.297	0		78.9				

L1591301-01,02,03,04

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT EDWARDS POWER PLANT, ASH POND EDW-257-801

CD

OS

SC

GI

AI

SDG:

L1591301

L1590080-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1590080-01	03/20/23 13:42 • (DUP) R3903275-5	03/20/23 13:42	Original Result pCi/l	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty +/-	DUP MDA pCi/l	Dilution %	DUP RER %	DUP RPD %	DUP Qualifier 1.23	DUP RER Limit %
Analyte Radium-226	0.879	0.409	0.285	0.216	0.350	0.285	1	121			1	20
(f) Barium-433	79.6			68.3	68.3						3	

Laboratory Control Sample (LCS)

(LCS) R3903275-2	03/20/23 13:42	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Analyte Radium-226	5.01	5.49	110	80.0-120		

L1590082-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590082-06	03/20/23 13:42 • (MS) R3903275-3	03/20/23 13:42 • (MSD) R3903275-4	03/20/23 13:42	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MS Rec. %	MS Rec. %	Dilution %	Rec. Limits %	MS Qualifier	MS RER	MS RPD %	MS RER Limit %
Analyte Radium-226	20.0	0.387	21.8	21.1	107	104	1	75.0-125			2.89	2.89	2.89	20

L1590082-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590082-06	03/20/23 13:42 • (MS) R3903275-3	03/20/23 13:42 • (MSD) R3903275-4	03/20/23 13:42	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MS Rec. %	MS Rec. %	Dilution %	Rec. Limits %	MS Qualifier	MS RER	MS RPD %	MS RER Limit %
Analyte (f) Barium-433	79.2		77.9		82.5									

Guide to Reading and Understanding Your Laboratory Report

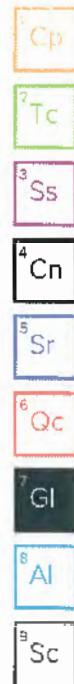
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASA CREDITATIONS & LOCATIONS
EDW-257-301

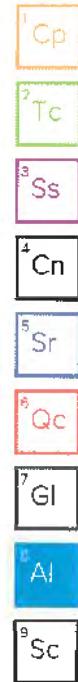
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	1742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02579
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	A130792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	1104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	CB47
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA - ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA - ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

[†] Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Internal Transfer Chain of Custody

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301**

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301



Ship to :
 Pace Analytical Services, LLC
 1638 Roseytown Rd - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

INTER-LABORATORY WORK ORDER # GB04670

(To be complete by sending lab)

Sending Project No:	GB04670
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	3/1/2023
REQUESTED COMPLETION DATE:	3/29/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	AECI - NEW MADRID
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: _____ IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		3		4	\$229.30	\$917.20
		1		1	\$0.00	\$0.00
		1		1		\$0.00
					TOTAL	\$917.20

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$917.20	\$733.76	\$183.44
* Custom Revenue Allocation		TOTAL	\$733.76	\$183.44

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: Yes No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.



ANALYTICAL REPORT

June 08, 2023

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group: L1592172
Samples Received: 03/07/2023
Project Number: GC00021
Description: Vista-Edwards
Site: 001
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ Sc

Entire Report Reviewed By:

A handwritten signature in blue ink that reads "Haley Torrence".

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

Cp: Cover Page

1

1 Cp

Tc: Table of Contents

2

2 Tc

Ss: Sample Summary

3

3 Ss

Cn: Case Narrative

6

4 Cn

Sr: Sample Results

7

5 Sr

AP05S L1592172-01

7

AP07S L1592172-02

8

AW-01 L1592172-03

9

AW-05 L1592172-04

10

AW-06 L1592172-05

11

AW-08 L1592172-06

12

AW-09 L1592172-07

13

AW-10 L1592172-08

14

AW-11 L1592172-09

15

AW-14 L1592172-10

16

AW-16 L1592172-11

17

AW-17 L1592172-12

18

AW-21 L1592172-13

19

Qc: Quality Control Summary

20

Radiochemistry by Method 904/9320

20

Radiochemistry by Method SM7500Ra B M

22

Gl: Glossary of Terms

23

Al: Accreditations & Locations

24

Sc: Sample Chain of Custody

25

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT, ASH POND

SAMPLE SUMMARY

EDW-257-301

AP05S L1592172-01 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
				Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2030972	1	03/28/23 18:32	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42	03/27/23 15:55	RGT	Mt. Juliet, TN

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

AP07S L1592172-02 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
				Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2030972	1	03/28/23 18:32	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42	03/27/23 15:55	RGT	Mt. Juliet, TN

AW-01 L1592172-03 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
				Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2030972	1	03/28/23 18:32	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42	03/27/23 15:55	RGT	Mt. Juliet, TN

AW-05 L1592172-04 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
				Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2030972	1	03/28/23 18:32	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42	03/27/23 15:55	RGT	Mt. Juliet, TN

AW-06 L1592172-05 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
				Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2030972	1	03/28/23 18:32	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42	03/27/23 15:55	RGT	Mt. Juliet, TN

AW-08 L1592172-06 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
				Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2030972	1	03/28/23 18:32	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42	03/31/23 17:37	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42	03/27/23 15:55	RGT	Mt. Juliet, TN

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND SAMPLE SUMMARY
EDW-257-301

AW-09 L1592172-07 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/28/23 12:05	03/07/23 10:10
Radiochemistry by Method 904/9320	WG2030972	1	03/28/23 18:32		03/31/23 17:37	SWM Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42		03/31/23 17:37	SWM Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42		03/27/23 15:55	RGT Mt. Juliet, TN

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

AW-10 L1592172-08 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/28/23 15:45	03/07/23 10:10
Radiochemistry by Method 904/9320	WG2031703	1	03/29/23 18:46		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42		03/27/23 15:55	RGT Mt. Juliet, TN

AW-11 L1592172-09 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/28/23 14:24	03/07/23 10:10
Radiochemistry by Method 904/9320	WG2031703	1	03/29/23 18:46		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42		03/27/23 15:55	RGT Mt. Juliet, TN

AW-14 L1592172-10 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/28/23 13:13	03/07/23 10:10
Radiochemistry by Method 904/9320	WG2031703	1	03/29/23 18:46		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42		03/27/23 15:55	RGT Mt. Juliet, TN

AW-16 L1592172-11 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/28/23 13:08	03/07/23 10:10
Radiochemistry by Method 904/9320	WG2031703	1	03/29/23 18:46		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42		03/27/23 15:55	RGT Mt. Juliet, TN

AW-17 L1592172-12 Non-Potable Water

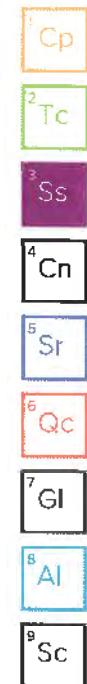
Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					02/28/23 11:06	03/07/23 10:10
Radiochemistry by Method 904/9320	WG2031703	1	03/29/23 18:46		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42		04/03/23 13:45	SWM Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42		03/27/23 15:55	RGT Mt. Juliet, TN

APPENDIX A.

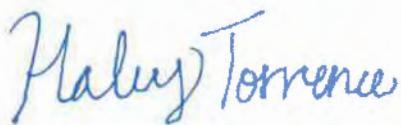
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND SAMPLE SUMMARY
EDW-257-301

AW-21 L1592172-13 Non-Potable Water

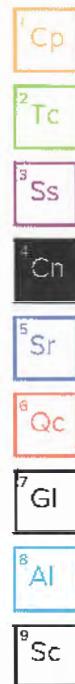
			Collected by	Collected date/time	Received date/time	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2031703	1	03/29/23 18:46	04/03/23 13:45	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2027993	1	03/24/23 17:42	04/03/23 13:45	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2027993	1	03/24/23 17:42	03/27/23 15:55	RGT	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager



Report Revision History

Level II Report - Version 1: 04/05/23 08:34

Project Narrative

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 01

AP05S

Collected date/time: 02/28/23 14:40

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	1.06	J	0.647	1.12	03/31/2023 17:37	WG2030972
(I) Barium	102			30.0-143	03/31/2023 17:37	WG2030972
(I) Yttrium	95.8			30.0-136	03/31/2023 17:37	WG2030972

¹Cp²Tc³Ss⁴Ch⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	3.12		0.850	1.15	03/31/2023 17:37	WG2027993

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	2.06		0.551	0.282	03/27/2023 15:55	WG2027993
(I) Barium-133	87.9			30.0-143	03/27/2023 15:55	WG2027993

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AP07S

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 02

Collected date/time: 02/28/23 13:28

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	0.000	U	0.578	1.03	03/31/2023 17:37	WG2030972
(<i>t</i>) Barium	98.3			30.0-143	03/31/2023 17:37	WG2030972
(<i>t</i>) Yttrium	99.5			30.0-136	03/31/2023 17:37	WG2030972

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.782	J	0.689	1.08	03/31/2023 17:37	WG2027993

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.782		0.375	0.326	03/27/2023 15:55	WG2027993
(<i>t</i>) Barium-133	86.2			30.0-143	03/27/2023 15:55	WG2027993

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-01

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 03

Collected date/EDW# 02/28/23 15:41

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	0.720	J	0.631	1.11	03/31/2023 17:37	WG2030972
(<i>7</i>) Barium	89.0			30.0-143	03/31/2023 17:37	WG2030972
(<i>7</i>) Yttrium	102			30.0-136	03/31/2023 17:37	WG2030972

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	2.77		0.901	1.17	03/31/2023 17:37	WG2027993

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	2.05		0.643	0.380	03/27/2023 15:55	WG2027993
(<i>7</i>) Barium-133	77.1			30.0-143	03/27/2023 15:55	WG2027993

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-05

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 04

Collected date/time: 03/28/23 11:57

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	0.862	J	0.511	0.886	03/31/2023 17:37	WG2030972
(I) Barium	96.6			30.0-143	03/31/2023 17:37	WG2030972
(I) Yttrium	105			30.0-136	03/31/2023 17:37	WG2030972

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	1.44		0.618	0.941	03/31/2023 17:37	WG2027993

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.583		0.348	0.316	03/27/2023 15:55	WG2027993
(I) Barium-133	81.3			30.0-143	03/27/2023 15:55	WG2027993

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-06

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 05

Collected date/time: EDW-257 3/30/23 10:03

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	0.000	U	+/- 0.314	0.563	03/31/2023 17:37	WG2030972
(<i>t</i>) Barium	105			30.0-143	03/31/2023 17:37	WG2030972
(<i>t</i>) Yttrium	99.7			30.0-136	03/31/2023 17:37	WG2030972

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.489	J	+/- 0.443	0.641	03/31/2023 17:37	WG2027993

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.489		+/- 0.313	0.306	03/27/2023 15:55	WG2027993
(<i>t</i>) Barium-133	88.8			30.0-143	03/27/2023 15:55	WG2027993

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	0.0902	<u>U</u>	0.324	0.579	03/31/2023 17:37	WG2030972
(η) Barium	120			30.0-143	03/31/2023 17:37	WG2030972
(η) Yttrium	96.8			30.0-136	03/31/2023 17:37	WG2030972

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.261	<u>J</u>	0.380	0.639	03/31/2023 17:37	WG2027993

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.171	<u>J</u>	0.198	0.270	03/27/2023 15:55	WG2027993
(η) Barium-133	90.2			30.0-143	03/27/2023 15:55	WG2027993

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-09

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 07

Collected date EDWMr2023-03-28 12:05

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-228	0.617	+/-	0.328	0.567	03/31/2023 17:37	WG2030972	¹ Cp
(<i>t</i>) Barium	120			30.0-143	03/31/2023 17:37	WG2030972	² Tc
(<i>t</i>) Yttrium	95.2			30.0-136	03/31/2023 17:37	WG2030972	³ Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Combined Radium	1.12	+/-	0.435	0.614	03/31/2023 17:37	WG2027993	⁴ Cn

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-226	0.500	+/-	0.286	0.236	03/27/2023 15:55	WG2027993	⁵ Sr
(<i>t</i>) Barium-133	95.1			30.0-143	03/27/2023 15:55	WG2027993	⁶ Qc

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND

AW-10

Collected date 04/08/2023 15:45

SAMPLE RESULTS - 08

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-228	0.646		0.364	0.637	04/03/2023 13:45	WG2031703	¹ Cp
(<i>t</i>) Barium	114			30.0-143	04/03/2023 13:45	WG2031703	² Tc
(<i>t</i>) Yttrium	97.8			30.0-136	04/03/2023 13:45	WG2031703	³ Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Combined Radium	1.57		0.541	0.718	04/03/2023 13:45	WG2027993	⁵ Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-226	0.926		0.400	0.332	03/27/2023 15:55	WG2027993	⁶ Qc
(<i>t</i>) Barium-133	85.4			30.0-143	03/27/2023 15:55	WG2027993	⁷ Gl

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 09

AW-11

Collected date/time: 02/28/23 14:24

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	1.66	+/-	0.388	0.653	04/03/2023 13:45	WG2031703
(<i>T</i>) Barium	108			30.0-143	04/03/2023 13:45	WG2031703
(<i>T</i>) Yttrium	116			30.0-136	04/03/2023 13:45	WG2031703

Cp

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	2.25	+/-	0.474	0.680	04/03/2023 13:45	WG2027993

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.587	+/-	0.273	0.190	03/27/2023 15:55	WG2027993
(<i>T</i>) Barium-133	93.1			30.0-143	03/27/2023 15:55	WG2027993

AW-14

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 10

Collected date EDW 2023/03/27 13:13

L1592172

Radiochemistry by Method 904/9320

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Uncertainty</u>	<u>MDA</u>	<u>Analysis Date</u>	<u>Batch</u>
RADIUM-228	0.721	+/-	0.410	0.717	04/03/2023 13:45	<u>WG2031703</u>
(<i>t</i>) Barium	111			30.0-143	04/03/2023 13:45	<u>WG2031703</u>
(<i>t</i>) Yttrium	115			30.0-136	04/03/2023 13:45	<u>WG2031703</u>

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Uncertainty</u>	<u>MDA</u>	<u>Analysis Date</u>	<u>Batch</u>
Combined Radium	1.30	+/-	0.515	0.775	04/03/2023 13:45	<u>WG2027993</u>

Radiochemistry by Method SM7500Ra B M

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Uncertainty</u>	<u>MDA</u>	<u>Analysis Date</u>	<u>Batch</u>
RADIUM-226	0.580	+/-	0.311	0.294	03/27/2023 15:55	<u>WG2027993</u>
(<i>t</i>) Barium-133	94.7			30.0-143	03/27/2023 15:55	<u>WG2027993</u>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	1.70	+/-	0.371	0.616	04/03/2023 13:45	WG2031703
(<i>T</i>) Barium	715			30.0-143	04/03/2023 13:45	WG2031703
(<i>T</i>) Yttrium	712			30.0-136	04/03/2023 13:45	WG2031703

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	3.13	+/-	0.631	0.722	04/03/2023 13:45	WG2027993

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	1.43	+/-	0.511	0.376	03/27/2023 15:55	WG2027993
(<i>T</i>) Barium-133	93.0			30.0-143	03/27/2023 15:55	WG2027993

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-17

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 12

Collected date/time: 04/03/23 11:06

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-226	1.92	+/-	0.471	0.793	04/03/2023 13:45	WG2031703	¹ Cp
(7) Barium	114			30.0-143	04/03/2023 13:45	WG2031703	² Tc
(7) Yttrium	81.4			30.0-136	04/03/2023 13:45	WG2031703	³ Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Combined Radium	3.46	+/-	0.693	0.849	04/03/2023 13:45	WG2027993	⁴ Cn

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-226	1.54	+/-	0.508	0.304	03/27/2023 15:55	WG2027993	⁵ Sr
(7) Barium-133	92.9			30.0-143	03/27/2023 15:55	WG2027993	⁶ Qc

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-21

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 13

Collected date/time: 04/03/2023 10:05

L1592172

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.334	U	0.341	0.609	04/03/2023 13:45	WG2031703
(<i>t</i>) Barium	105			30.0-143	04/03/2023 13:45	WG2031703
(<i>t</i>) Yttrium	88.8			30.0-136	04/03/2023 13:45	WG2031703

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.642	U	0.426	0.677	04/03/2023 13:45	WG2027993

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.308		0.256	0.295	03/27/2023 15:55	WG2027993
(<i>t</i>) Barium-133	93.2			30.0-143	03/27/2023 15:55	WG2027993

WG2030972

Radiochemistry by Method 904-9320

QUALITY CONTROL SUMMARY

L1592172-01,02,03,04,05,06,07

Method Blank (MB)

Analyte	(MB) R3908520-1 03/31/23 17:37	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l	+/-	pCi/l	+/-	pCi/l
Radium-228	-0.0406	U	0.179	0.155	
(f) Barium	102		102		
(f) Yttrium	98.3		99.3		

L1592923-02 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+/-	pCi/l	pCi/l	+/-	pCi/l	%	%	%		%	
Radium-228	0.261	0.430	0.755	0.987	0.332	0.755	1	116	134		20	3
(f) Barium	105		105	105		105						
(f) Yttrium	104		98.0	98.0		98.0						

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-228	5.00	4.66	93.3	80.0-120	
(f) Barium					
(f) Yttrium					

L1592922-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	MSD RER	RPD Limits
	pCi/l	pCi/l	pCi/l	%	%	%			%	%	%	%
Radium-228	10.0	-0.0150	9.56	10.4	95.6	104			8.16			20
(f) Barium		104	105	103								
(f) Yttrium		108	111	97.2								

WG2031703

Radiochemistry by Method 904/9320

QUALITY CONTROL SUMMARY

L1592772-08,09,10,11,12,13

Method Blank (MB)

Analyte	(MB) R3908858-1	04/03/23 13:45	MB Result	MB Qualifier	MB Uncertainty	MB MDA
			pCi/l	+/-	pCi/l	
Radium-228	-	0.241	0.134	-	0.236	-
(f) Barium	103	103	-	-	-	-

(f) Yttrium
98.8

L159277-01 Original Sample (OS) • Duplicate (DUP)

Analyte	(OS) L159277-01	04/03/23 13:45	(DUP) R3908858-5	04/03/23 13:45	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
			pCi/l	+/-	pCi/l	+/-	pCi/l	+/-	pCi/l	pCi/l	%	%	%	%	%	%
Radium-228	0.148	0.382	0.161	0.688	0.161	0.341	0.688	0.14	0.14	1	8.60	0.0260	U	20	3	
(f) Barium	110	110	106	106	106	107	106	-	-	-	-	-	-	-	-	

(f) Yttrium
98.8

Laboratory Control Sample (LCS)

Analyte	(LCS) R3908858-2	04/03/23 13:45	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
			pCi/l	%	%	%	
Radium-228	-	5.00	4.34	86.8	80.0-120	-	-

(f) Barium
107

(f) Yttrium
95.3

L1592779-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	(OS) L1592779-04	04/03/23 13:45	(MS) R3908858-3	04/03/23 13:45	Spike Amount	Original Result	MS Result	MS Rec.	MSD Result	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPO	MS RER	RPD	MS RER	RPD	MS RER	RPD
			pCi/l	pCi/l	pCi/l	%	pCi/l	%	pCi/l	%	%	%			%	%	%	%	%	%	
Radium-228	10.0	1.50	9.36	9.61	78.6	81.1	116	100	101	101	1	70.0-130	-	-	2.71	-	-	20	-	-	

(f) Barium
115

(f) Yttrium
113

WG2027993

Radiochemistry by Method SM7500RA B M

QUALITY CONTROL SUMMARY

L1592169-01 02.03.04.05.06.07.08.09.10.11.12.13

Method Blank (MB)

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty pCi/l	MB MDA pCi/l
Radium-226	-0.0194	U	0.0268	0.0783
(f) Barium-133	83.8		83.8	

L1592169-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1592169-01 03/27/23 15:55 • (DUP) R3907079-5 03/27/23 15:55		Original Result pCi/l	Original Uncertainty +/-	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty +/-	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER %	DUP RPD Limits	DUP RER Limit
Radium-226		0.424	0.253	0.216	0.583	0.333	0.216	1	31.6	0.380	20	3
(f) Barium-133		90.3			82.6	82.6						

Laboratory Control Sample (LCS)

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.34	107	80.0-120	-
(f) Barium-133			75.8		

L1592923-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1592923-01 03/27/23 15:55 • (MS) R3907079-3 03/27/23 15:55 • (MSD) R3907079-4 03/27/23 15:55		Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER %	MSD RER %	RPD Limits %
Radium-226		20.0	0.0410	18.6	18.4	92.5	91.6	1	75.0-125	88.4	1.03			20
(f) Barium-133			91.7		85.6									

Guide to Reading and Understanding Your Laboratory Report

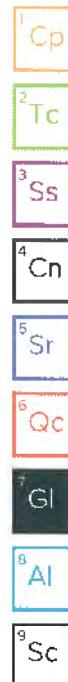
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful OC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.



APPENDIX A
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASHP
 ACCREDITATIONS & LOCATIONS
 EDW-257-301

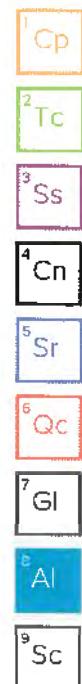
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	86-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0107	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CLO069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,4}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	A130792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	CB47
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



D052

Internal Transfer Chain of Custody

**APPENDIX A
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301**

EDW-257-301

www.ket.com

Sample intact X or N

Note: Signature may not be provided on this CCC document.

COMME LA BOUTEILLE

Sample Receipt Checklist
If Applicable

CCC Seal Present/Intact:	<input checked="" type="checkbox"/>
CCC Signed/Accurate:	<input checked="" type="checkbox"/>
Storage Drive Intact:	<input checked="" type="checkbox"/>
Correct bottles used:	<input checked="" type="checkbox"/>
Sufficient volume/bottles:	<input checked="" type="checkbox"/>
Proper container(s) & label(s):	<input checked="" type="checkbox"/>

FIAT 400 2000 00 3 114 - 1

卷二

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

URG272



Ship to :

Pace Analytical Services, LLC
3638 Roseytown Rd - Suites 2,3,4
Greensburg, PA 15601

(724)850-5600

INTER LABORATORY WORK ORDER # GC00021

(To be complete by sending lab)

Sending Project No:	GC00021
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	3/2/2023
REQUESTED COMPLETION DATE:	3/30/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	VISTRA - EDWARDS
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		1		13	\$229.30	\$2,980.90
		1		1	\$0.00	\$0.00
		1		1		\$0.00
						TOTAL \$2,980.90

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$2,980.90	\$2,384.72	\$596.18
* Custom Revenue Allocation		TOTAL	\$2,384.72	\$596.18

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: Yes No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Page 52 of 54

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company:	Vistra Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey
Address:	13496 E. 900th St	C/PY To:	Jason Stuckey	Company Name:	Vistra Corp
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Address:	see Section A
Phone:	(217) 753-8911	Fax:		Office Reference:	
Requested Due Date/TAT:	10 day	Project Name:		Project Manager:	
Project Number:	2285	Profile #:		STATE:	IL

Section C

Invoice Information:

ITEM #	SAMPLE ID (A-Z, 0-9, /, -) Sample ID MUST BE UNIQUE	Valid Matrix Codes CODE MATRIX DRINKING WATER WATER WASTE WATER PRODUCT SOLID WPC AIR OTHER Tissue	COLLECTED DATE	TIME	SAMPLE TYPE (G=GRADE C=COMP) G=COLLECTED C=Preservatives	# OF CONTAINERS	SAMPLE TEMP AT COLLECTION	Preservatives Y/N	Analysis Test ↑ Y/N	Residual Chlorine (Y/N)	Project No./Lab I.D.
1	AP05S	WT	6/2/2023	14:40				X			
2	AP07S	WT	6/2/2023	13:28				X			
3	AW-01	WT	6/2/2023	15:41				X			
4	AW-05	WT	6/2/2023	15:47				X			
5	AW-06	WT	6/2/2023	10:03				X			
6	AW-08	WT	6/2/2023	14:40/15:57				X			
7	AW-09	WT	6/2/2023	12:05				X			
8	AW-10	WT	6/2/2023	15:45				X			
9	AW-11	WT	6/2/2023	14:24				X			
10	AW-14	WT	6/2/2023	13:13				X			
11	AW-15										
12	AW-15S										
13	AW-16	WT	6/2/2023	13:08				X			
14	AW-17	WT	6/2/2023	11:06				X			
15	AW-18										
16	AW-19										
			ADDITIONAL COMMENTS			REINFORCED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
			EDW-23Q1-Rev 1			<i>[Signature]</i>	2/28/23	1723			
						SAMPLER NAME AND SIGNATURE:					
						PRINT Name of SAMPLER:					
						SIGNATURE of SAMPLER:					

Vista Wigner 3-1-23 707
Contin

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



August 16, 2023

Brian Voelker
Vistra - Edwards
604 Pierce Boulevard
O'Fallon, IL 62269

Dear Brian Voelker:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Gail J. Schindler

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GF02086

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
YES	Case narrative provided



Work Order GF02645

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GF02896

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GF02088-01 **Sampled:** 06/12/23 14:05
Name: AW-09 **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.230 J	pCi/L			1	0.49	07/21/23 16:40		904.0 903.0

Sample: GF02088-02 **Sampled:** 06/12/23 14:35
Name: AW-15 **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.8	pCi/L			1	0.508	07/21/23 16:40		904.0 903.0

Sample: GF02088-03 **Sampled:** 06/12/23 13:29
Name: AW-15S **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.203 U	pCi/L			1	0.713	07/21/23 16:40		904.0 903.0

Sample: GF02088-04 **Sampled:** 06/12/23 15:52
Name: AW-16 **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.74	pCi/L			1	0.538	07/21/23 16:40		904.0 903.0



ANALYTICAL RESULTS

Sample: GF02088-05 **Sampled:** 06/12/23 15:32
Name: XPW01A **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0760 U	pCi/L			1	0.638	07/21/23 16:40		904.0 903.0

Sample: GF02088-06 **Sampled:** 06/13/23 15:20
Name: AW-10 **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.95	pCi/L			1	0.667	07/21/23 16:40		904.0 903.0

Sample: GF02088-07 **Sampled:** 06/13/23 15:20
Name: AW-10 DUP **Received:** 06/13/23 16:51
Matrix: Ground Water - Field Duplicate **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.79	pCi/L			1	0.672	07/21/23 16:40		904.0 903.0

Sample: GF02088-08 **Sampled:** 06/13/23 12:54
Name: AW-11 **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.29	pCi/L			1	0.744	07/21/23 16:40		904.0 903.0



ANALYTICAL RESULTS

Sample: GF02088-09 **Sampled:** 06/13/23 11:20
Name: AW-14 **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.46	pCi/L			1	0.667	07/21/23 16:40		904.0 903.0

Sample: GF02088-10 **Sampled:** 06/13/23 15:20
Name: AW-17 **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.97	pCi/L			1	0.671	07/21/23 16:40		904.0 903.0

Sample: GF02088-11 **Sampled:** 06/13/23 12:06
Name: XPW02 **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.481 J	pCi/L			1	0.725	07/21/23 20:53		904.0 903.0

Sample: GF02088-12 **Sampled:** 06/13/23 13:38
Name: XPW03 **Received:** 06/13/23 16:51
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.897	pCi/L			1	0.675	07/21/23 20:53		904.0 903.0



ANALYTICAL RESULTS

Sample: GF02677-01 **Sampled:** 06/14/23 10:34
Name: AP05S **Received:** 06/14/23 16:54
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	4.53	pCi/L			1	1.07	07/20/23 16:47		904.0 903.0

Sample: GF02677-02 **Sampled:** 06/14/23 12:35
Name: AW-01 **Received:** 06/14/23 16:54
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.773	pCi/L			1	0.725	07/20/23 16:47		904.0 903.0

Sample: GF02677-03 **Sampled:** 06/14/23 10:33
Name: AW-06 **Received:** 06/14/23 16:54
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.91	pCi/L			1	0.54	07/20/23 16:47		904.0 903.0

Sample: GF02677-04 **Sampled:** 06/14/23 14:24
Name: AW-08 **Received:** 06/14/23 16:54
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.815	pCi/L			1	0.704	07/20/23 16:47		904.0 903.0



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GF02677-05 **Sampled:** 06/14/23 12:08
Name: AW-18 **Received:** 06/14/23 16:54
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.92	pCi/L			1	0.568	07/20/23 16:47		904.0 903.0

Sample: GF02677-06 **Sampled:** 06/14/23 13:40
Name: AW-19 **Received:** 06/14/23 16:54
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.471 J	pCi/L			1	0.52	07/21/23 16:40		904.0 903.0

Sample: GF02677-07 **Sampled:** 06/14/23 13:40
Name: AW-19 DUP **Received:** 06/14/23 16:54
Matrix: Ground Water - Field Duplicate **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.04	pCi/L			1	0.494	07/21/23 16:40		904.0 903.0

Sample: GF02677-08 **Sampled:** 06/14/23 15:40
Name: AW-21 **Received:** 06/14/23 16:54
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.326 J	pCi/L			1	0.573	07/21/23 16:40		904.0 903.0



ANALYTICAL RESULTS

Sample: GF02677-09 **Sampled:** 06/14/23 16:03
Name: EB-01 **Received:** 06/14/23 16:54
Matrix: Ground Water - Equipment Blank **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0292 U	pCi/L			1	0.494	07/21/23 16:40		904.0 903.0

Sample: GF02943-01 **Sampled:** 06/15/23 11:03
Name: AP07S **Received:** 06/15/23 15:22
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.2	pCi/L			1	1.19	07/20/23 16:47		904.0 903.0

Sample: GF02943-02 **Sampled:** 06/15/23 11:31
Name: AW-05 **Received:** 06/15/23 15:22
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.09	pCi/L			1	1.22	07/20/23 16:47		904.0 903.0

Sample: GF02943-03 **Sampled:** 06/15/23 14:00
Name: EB-2 **Received:** 06/15/23 15:22
Matrix: Ground Water - Equipment Blank **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.323 U	pCi/L			1	0.879	07/20/23 16:47		904.0 903.0



ANALYTICAL RESULTS

Sample: GF02086-01

Name: AW-09

Matrix: Ground Water - Grab

Sampled: 06/12/23 14:05

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	29	mg/L	Q3	06/13/23 10:20	5	5.0	06/13/23 10:20	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/13/23 09:26	1	0.250	06/13/23 09:26	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		06/13/23 09:26	1	1.0	06/13/23 09:26	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26.65	Feet		06/12/23 14:05	1		06/12/23 14:05	FIELD	Field*
Dissolved oxygen, Field	1.7	mg/L		06/12/23 14:05	1		06/12/23 14:05	FIELD	Field*
Oxidation Reduction Potential	-122	mV		06/12/23 14:05	1	-500	06/12/23 14:05	FIELD	Field*
pH, Field Measured	6.89	pH Units		06/12/23 14:05	1		06/12/23 14:05	FIELD	Field*
Specific Conductance, Field Measured	1550	umhos/cm		06/12/23 14:05	1		06/12/23 14:05	FIELD	Field*
Temperature, Field Measured	16.2	°C		06/12/23 14:05	1		06/12/23 14:05	FIELD	Field*
Turbidity, Field Measured	67.2	NTU		06/12/23 14:05	1	0.00	06/12/23 14:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	790	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	790	mg/L		06/13/23 14:44	1	26	06/13/23 14:44	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 07:26	5	3.0	06/26/23 08:10	JMW	EPA 6020A
Arsenic	10	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:10	JMW	EPA 6020A
Barium	290	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:10	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:10	JMW	EPA 6020A
Boron	260	ug/L		06/15/23 07:26	5	10	06/26/23 08:10	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:10	JMW	EPA 6020A
Calcium	120	mg/L		06/15/23 07:26	5	0.20	06/26/23 08:10	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 07:26	5	4.0	06/26/23 08:10	JMW	EPA 6020A
Cobalt	2.2	ug/L		06/15/23 07:26	5	2.0	06/26/23 08:10	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:10	JMW	EPA 6020A
Magnesium	51	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:10	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 07:26	5	0.20	06/26/23 08:10	JMW	EPA 6020A
Molybdenum	21	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:10	JMW	EPA 6020A
Potassium	2.1	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:10	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:10	JMW	EPA 6020A
Sodium	130	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:10	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02086-01

Name: AW-09

Matrix: Ground Water - Grab

Sampled: 06/12/23 14:05

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:10	JMW	EPA 6020A
Lithium	< 20	ug/L		06/15/23 07:26	1	20	06/20/23 12:39	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02086-02

Name: AW-15

Matrix: Ground Water - Grab

Sampled: 06/12/23 14:35

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	35	mg/L		06/13/23 12:08	10	10	06/13/23 12:08	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/13/23 11:50	1	0.250	06/13/23 11:50	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		06/13/23 11:50	1	1.0	06/13/23 11:50	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	8.48	Feet		06/12/23 13:07	1		06/12/23 13:07	FIELD	Field*
Dissolved oxygen, Field	0.27	mg/L		06/12/23 13:07	1		06/12/23 13:07	FIELD	Field*
Oxidation Reduction Potential	-101	mV		06/12/23 13:07	1	-500	06/12/23 13:07	FIELD	Field*
pH, Field Measured	6.63	pH Units		06/12/23 13:07	1		06/12/23 13:07	FIELD	Field*
Specific Conductance, Field Measured	1970	umhos/cm		06/12/23 13:07	1		06/12/23 13:07	FIELD	Field*
Temperature, Field Measured	17.4	°C		06/12/23 13:07	1		06/12/23 13:07	FIELD	Field*
Turbidity, Field Measured	46.5	NTU		06/12/23 13:07	1	0.00	06/12/23 13:07	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	1100	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1400	mg/L		06/13/23 14:44	1	26	06/13/23 14:44	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 07:26	5	3.0	06/26/23 08:14	JMW	EPA 6020A
Arsenic	2.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:14	JMW	EPA 6020A
Barium	1900	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:14	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:14	JMW	EPA 6020A
Boron	360	ug/L		06/15/23 07:26	5	10	06/26/23 08:14	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:14	JMW	EPA 6020A
Calcium	140	mg/L		06/15/23 07:26	5	0.20	06/26/23 08:14	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 07:26	5	4.0	06/26/23 08:14	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 07:26	5	2.0	06/26/23 08:14	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:14	JMW	EPA 6020A
Magnesium	58	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:14	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 07:26	5	0.20	06/26/23 08:14	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:14	JMW	EPA 6020A
Potassium	4.2	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:14	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:14	JMW	EPA 6020A
Sodium	210	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:14	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02086-02

Name: AW-15

Matrix: Ground Water - Grab

Sampled: 06/12/23 14:35

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:14	JMW	EPA 6020A
Lithium	30	ug/L		06/15/23 07:26	1	20	06/20/23 12:41	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02086-03

Sampled: 06/12/23 13:29

Name: AW-15S

Received: 06/13/23 06:30

Matrix: Ground Water - Grab

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	31	mg/L		06/13/23 13:57	10	10	06/13/23 13:57	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/13/23 13:39	1	0.250	06/13/23 13:39	CRD	EPA 300.0 REV 2.1
Sulfate	590	mg/L		06/13/23 14:15	100	100	06/13/23 14:15	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.83	Feet		06/12/23 13:29	1		06/12/23 13:29	FIELD	Field*
Dissolved oxygen, Field	6.0	mg/L		06/12/23 13:29	1		06/12/23 13:29	FIELD	Field*
Oxidation Reduction Potential	38.0	mV		06/12/23 13:29	1	-500	06/12/23 13:29	FIELD	Field*
pH, Field Measured	6.65	pH Units		06/12/23 13:29	1		06/12/23 13:29	FIELD	Field*
Specific Conductance, Field Measured	1840	umhos/cm		06/12/23 13:29	1		06/12/23 13:29	FIELD	Field*
Temperature, Field Measured	15.8	°C		06/12/23 13:29	1		06/12/23 13:29	FIELD	Field*
Turbidity, Field Measured	29.1	NTU		06/12/23 13:29	1	0.00	06/12/23 13:29	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	510	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	990	mg/L		06/13/23 14:44	1	26	06/13/23 14:44	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 07:26	5	3.0	06/26/23 08:18	JMW	EPA 6020A
Arsenic	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:18	JMW	EPA 6020A
Barium	75	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:18	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:18	JMW	EPA 6020A
Boron	6700	ug/L		06/15/23 07:26	5	10	06/26/23 08:18	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:18	JMW	EPA 6020A
Calcium	280	mg/L		06/15/23 07:26	5	0.20	06/26/23 08:18	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 07:26	5	4.0	06/26/23 08:18	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 07:26	5	2.0	06/26/23 08:18	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:18	JMW	EPA 6020A
Magnesium	84	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:18	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 07:26	5	0.20	06/26/23 08:18	JMW	EPA 6020A
Molybdenum	3.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:18	JMW	EPA 6020A
Potassium	0.54	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:18	JMW	EPA 6020A
Selenium	1.8	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:18	JMW	EPA 6020A
Sodium	57	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:18	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02086-03

Name: AW-15S

Matrix: Ground Water - Grab

Sampled: 06/12/23 13:29

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:18	JMW	EPA 6020A
Lithium	< 20	ug/L		06/15/23 07:26	1	20	06/20/23 12:42	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02086-04

Name: AW-16

Matrix: Ground Water - Grab

Sampled: 06/12/23 15:52

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	50	mg/L		06/13/23 15:45	10	10	06/13/23 15:45	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/13/23 15:27	1	0.250	06/13/23 15:27	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		06/13/23 15:27	1	1.0	06/13/23 15:27	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	20.3	Feet		06/12/23 15:52	1		06/12/23 15:52	FIELD	Field*
Dissolved oxygen, Field	0.51	mg/L		06/12/23 15:52	1		06/12/23 15:52	FIELD	Field*
Oxidation Reduction Potential	-101	mV		06/12/23 15:52	1	-500	06/12/23 15:52	FIELD	Field*
pH, Field Measured	6.51	pH Units		06/12/23 15:52	1		06/12/23 15:52	FIELD	Field*
Specific Conductance, Field Measured	2110	umhos/cm		06/12/23 15:52	1		06/12/23 15:52	FIELD	Field*
Temperature, Field Measured	17.9	°C		06/12/23 15:52	1		06/12/23 15:52	FIELD	Field*
Turbidity, Field Measured	77.4	NTU		06/12/23 15:52	1	0.00	06/12/23 15:52	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	1100	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1500	mg/L		06/13/23 14:44	1	26	06/13/23 14:44	MKH	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		06/15/23 07:26	5	3.0	06/26/23 08:22	JMW	EPA 6020A
Arsenic	1.7	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:22	JMW	EPA 6020A
Barium	1300	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:22	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:22	JMW	EPA 6020A
Boron	450	ug/L		06/15/23 07:26	5	10	06/26/23 08:22	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:22	JMW	EPA 6020A
Calcium	150	mg/L		06/15/23 07:26	5	0.20	06/26/23 08:22	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 07:26	5	4.0	06/26/23 08:22	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 07:26	5	2.0	06/26/23 08:22	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:22	JMW	EPA 6020A
Magnesium	61	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:22	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 07:26	5	0.20	06/26/23 08:22	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:22	JMW	EPA 6020A
Potassium	4.6	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:22	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:22	JMW	EPA 6020A
Sodium	250	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:22	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02086-04

Name: AW-16

Matrix: Ground Water - Grab

Sampled: 06/12/23 15:52

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:22	JMW	EPA 6020A
Lithium	31	ug/L		06/15/23 07:26	1	20	06/20/23 12:43	TJJ	EPA 6010B

Sample: GF02086-05

Name: XPW01A

Matrix: Ground Water - Grab

Sampled: 06/12/23 15:32

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Field - PIA

Depth, From Measuring Point	12.94	Feet		06/12/23 15:32	1		06/12/23 15:32	FIELD	Field*
-----------------------------	-------	------	--	----------------	---	--	----------------	-------	--------



ANALYTICAL RESULTS

Sample: GF02086-06

Name: AW-10

Matrix: Ground Water - Grab

Sampled: 06/13/23 15:20

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	89	mg/L		06/14/23 12:42	25	25	06/14/23 12:42	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/14/23 12:24	1	0.250	06/14/23 12:24	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		06/14/23 12:24	1	1.0	06/14/23 12:24	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	1.96	Feet		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Dissolved oxygen, Field	0.010	mg/L		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Oxidation Reduction Potential	-151	mV		06/13/23 15:20	1	-500	06/13/23 15:20	FIELD	Field*
pH, Field Measured	6.91	pH Units		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Specific Conductance, Field Measured	2174	umhos/cm		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Temperature, Field Measured	21.1	°C		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Turbidity, Field Measured	991	NTU		06/13/23 15:20	1	0.00	06/13/23 15:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	1000	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1200	mg/L		06/14/23 13:42	1	26	06/14/23 13:42	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 07:26	5	3.0	06/26/23 08:41	JMW	EPA 6020A
Arsenic	9.9	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:41	JMW	EPA 6020A
Barium	990	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:41	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:41	JMW	EPA 6020A
Boron	460	ug/L		06/15/23 07:26	5	10	06/26/23 08:41	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:41	JMW	EPA 6020A
Calcium	130	mg/L		06/15/23 07:26	5	0.20	06/26/23 08:41	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 07:26	5	4.0	06/26/23 08:41	JMW	EPA 6020A
Cobalt	3.0	ug/L		06/15/23 07:26	5	2.0	06/26/23 08:41	JMW	EPA 6020A
Lead	1.4	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:41	JMW	EPA 6020A
Magnesium	65	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:41	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 07:26	5	0.20	06/26/23 08:41	JMW	EPA 6020A
Molybdenum	1.2	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:41	JMW	EPA 6020A
Potassium	3.8	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:41	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:41	JMW	EPA 6020A
Sodium	280	mg/L		06/15/23 07:26	5	0.10	06/26/23 08:41	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02086-06

Name: AW-10

Matrix: Ground Water - Grab

Sampled: 06/13/23 15:20

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 08:41	JMW	EPA 6020A
Lithium	37	ug/L		06/15/23 07:26	1	20	06/20/23 12:45	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02086-07
Name: AW-10 DUP
Matrix: Ground Water - Field Duplicate

Sampled: 06/13/23 15:20
Received: 06/13/23 06:30
PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	97	mg/L		06/14/23 13:54	25	25	06/14/23 13:54	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/14/23 13:36	1	0.250	06/14/23 13:36	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		06/14/23 13:36	1	1.0	06/14/23 13:36	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	1.96	Feet		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Dissolved oxygen, Field	0.010	mg/L		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Oxidation Reduction Potential	-151	mV		06/13/23 15:20	1	-500	06/13/23 15:20	FIELD	Field*
pH, Field Measured	6.91	pH Units		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Specific Conductance, Field Measured	2174	umhos/cm		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Temperature, Field Measured	21.1	°C		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Turbidity, Field Measured	991	NTU		06/13/23 15:20	1	0.00	06/13/23 15:20	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	1100	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1200	mg/L		06/14/23 13:42	1	26	06/14/23 13:42	MKH	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		06/15/23 07:26	5	3.0	06/26/23 09:09	JMW	EPA 6020A
Arsenic	9.7	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:09	JMW	EPA 6020A
Barium	990	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:09	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:09	JMW	EPA 6020A
Boron	470	ug/L		06/15/23 07:26	5	10	06/26/23 09:09	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:09	JMW	EPA 6020A
Calcium	130	mg/L		06/15/23 07:26	5	0.20	06/26/23 09:09	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 07:26	5	4.0	06/26/23 09:09	JMW	EPA 6020A
Cobalt	2.5	ug/L		06/15/23 07:26	5	2.0	06/26/23 09:09	JMW	EPA 6020A
Lead	1.2	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:09	JMW	EPA 6020A
Magnesium	66	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:09	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 07:26	5	0.20	06/26/23 09:09	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:09	JMW	EPA 6020A
Potassium	3.8	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:09	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:09	JMW	EPA 6020A
Sodium	280	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:09	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02086-07
Name: AW-10 DUP
Matrix: Ground Water - Field Duplicate

Sampled: 06/13/23 15:20
Received: 06/13/23 06:30
PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:09	JMW	EPA 6020A
Lithium	37	ug/L		06/15/23 07:26	1	20	06/20/23 12:46	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02086-08

Sampled: 06/13/23 12:54

Name: AW-11

Received: 06/13/23 06:30

Matrix: Ground Water - Grab

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	33	mg/L		06/14/23 15:06	10	10	06/14/23 15:06	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/14/23 14:48	1	0.250	06/14/23 14:48	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		06/14/23 14:48	1	1.0	06/14/23 14:48	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	5.72	Feet		06/13/23 12:54	1		06/13/23 12:54	FIELD	Field*
Dissolved oxygen, Field	0.10	mg/L		06/13/23 12:54	1		06/13/23 12:54	FIELD	Field*
Oxidation Reduction Potential	-160	mV		06/13/23 12:54	1	-500	06/13/23 12:54	FIELD	Field*
pH, Field Measured	7.03	pH Units		06/13/23 12:54	1		06/13/23 12:54	FIELD	Field*
Specific Conductance, Field Measured	1757	umhos/cm		06/13/23 12:54	1		06/13/23 12:54	FIELD	Field*
Temperature, Field Measured	17.6	°C		06/13/23 12:54	1		06/13/23 12:54	FIELD	Field*
Turbidity, Field Measured	329	NTU		06/13/23 12:54	1	0.00	06/13/23 12:54	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	1000	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1100	mg/L		06/14/23 13:42	1	26	06/14/23 13:42	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 07:26	5	3.0	06/26/23 09:13	JMW	EPA 6020A
Arsenic	9.9	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:13	JMW	EPA 6020A
Barium	940	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:13	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:13	JMW	EPA 6020A
Boron	240	ug/L		06/15/23 07:26	5	10	06/26/23 09:13	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:13	JMW	EPA 6020A
Calcium	160	mg/L		06/15/23 07:26	5	0.20	06/26/23 09:13	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 07:26	5	4.0	06/26/23 09:13	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 07:26	5	2.0	06/26/23 09:13	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:13	JMW	EPA 6020A
Magnesium	71	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:13	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 07:26	5	0.20	06/26/23 09:13	JMW	EPA 6020A
Molybdenum	1.4	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:13	JMW	EPA 6020A
Potassium	2.7	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:13	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:13	JMW	EPA 6020A
Sodium	160	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:13	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02086-08

Name: AW-11

Matrix: Ground Water - Grab

Sampled: 06/13/23 12:54

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:13	JMW	EPA 6020A
Lithium	< 20	ug/L		06/15/23 07:26	1	20	06/20/23 12:52	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02086-09

Sampled: 06/13/23 11:20

Name: AW-14

Received: 06/13/23 06:30

Matrix: Ground Water - Grab

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	24	mg/L		06/14/23 16:55	10	10	06/14/23 16:55	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/14/23 16:37	1	0.250	06/14/23 16:37	CRD	EPA 300.0 REV 2.1
Sulfate	2.9	mg/L		06/14/23 16:37	1	1.0	06/14/23 16:37	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	7.29	Feet		06/13/23 11:20	1		06/13/23 11:20	FIELD	Field*
Dissolved oxygen, Field	0.14	mg/L		06/13/23 11:20	1		06/13/23 11:20	FIELD	Field*
Oxidation Reduction Potential	-152	mV		06/13/23 11:20	1	-500	06/13/23 11:20	FIELD	Field*
pH, Field Measured	6.88	pH Units		06/13/23 11:20	1		06/13/23 11:20	FIELD	Field*
Specific Conductance, Field Measured	1875	umhos/cm		06/13/23 11:20	1		06/13/23 11:20	FIELD	Field*
Temperature, Field Measured	18.0	°C		06/13/23 11:20	1		06/13/23 11:20	FIELD	Field*
Turbidity, Field Measured	10.4	NTU		06/13/23 11:20	1	0.00	06/13/23 11:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	1000	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1000	mg/L		06/14/23 13:42	1	26	06/14/23 13:42	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 07:26	5	3.0	06/26/23 09:17	JMW	EPA 6020A
Arsenic	7.8	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:17	JMW	EPA 6020A
Barium	800	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:17	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:17	JMW	EPA 6020A
Boron	180	ug/L		06/15/23 07:26	5	10	06/26/23 09:17	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:17	JMW	EPA 6020A
Calcium	180	mg/L		06/15/23 07:26	5	0.20	06/26/23 09:17	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 07:26	5	4.0	06/26/23 09:17	JMW	EPA 6020A
Cobalt	2.0	ug/L		06/15/23 07:26	5	2.0	06/26/23 09:17	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:17	JMW	EPA 6020A
Magnesium	70	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:17	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 07:26	5	0.20	06/26/23 09:17	JMW	EPA 6020A
Molybdenum	3.9	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:17	JMW	EPA 6020A
Potassium	2.3	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:17	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:17	JMW	EPA 6020A
Sodium	150	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:17	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02086-09

Name: AW-14

Matrix: Ground Water - Grab

Sampled: 06/13/23 11:20

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:17	JMW	EPA 6020A
Lithium	< 20	ug/L		06/15/23 07:26	1	20	06/20/23 12:53	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02086-10

Name: AW-17

Matrix: Ground Water - Grab

Sampled: 06/13/23 15:20

Received: 06/13/23 06:30

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	53	mg/L		06/14/23 18:07	10	10	06/14/23 18:07	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/14/23 17:49	1	0.250	06/14/23 17:49	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		06/14/23 17:49	1	1.0	06/14/23 17:49	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.38	Feet		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Dissolved oxygen, Field	0.69	mg/L		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Oxidation Reduction Potential	-111	mV		06/13/23 15:20	1	-500	06/13/23 15:20	FIELD	Field*
pH, Field Measured	7.05	pH Units		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Specific Conductance, Field Measured	1910	umhos/cm		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Temperature, Field Measured	17.0	°C		06/13/23 15:20	1		06/13/23 15:20	FIELD	Field*
Turbidity, Field Measured	124	NTU		06/13/23 15:20	1	0.00	06/13/23 15:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	880	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1100	mg/L		06/14/23 13:42	1	26	06/14/23 13:42	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 07:26	5	3.0	06/26/23 09:21	JMW	EPA 6020A
Arsenic	4.5	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:21	JMW	EPA 6020A
Barium	1100	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:21	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:21	JMW	EPA 6020A
Boron	400	ug/L		06/15/23 07:26	5	10	06/26/23 09:21	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:21	JMW	EPA 6020A
Calcium	110	mg/L		06/15/23 07:26	5	0.20	06/26/23 09:21	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 07:26	5	4.0	06/26/23 09:21	JMW	EPA 6020A
Cobalt	2.5	ug/L		06/15/23 07:26	5	2.0	06/26/23 09:21	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:21	JMW	EPA 6020A
Magnesium	44	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:21	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 07:26	5	0.20	06/26/23 09:21	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:21	JMW	EPA 6020A
Potassium	4.3	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:21	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:21	JMW	EPA 6020A
Sodium	220	mg/L		06/15/23 07:26	5	0.10	06/26/23 09:21	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02086-10 **Sampled:** 06/13/23 15:20
Name: AW-17 **Received:** 06/13/23 06:30
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/15/23 07:26	5	1.0	06/26/23 09:21	JMW	EPA 6020A
Lithium	31	ug/L		06/15/23 07:26	1	20	06/20/23 12:55	TJJ	EPA 6010B

Sample: GF02086-11 **Sampled:** 06/13/23 12:06
Name: XPW02 **Received:** 06/13/23 06:30
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	22.13	Feet		06/13/23 12:06	1		06/13/23 12:06	FIELD	Field*

Sample: GF02086-12 **Sampled:** 06/13/23 13:38
Name: XPW03 **Received:** 06/13/23 06:30
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	18.22	Feet		06/13/23 13:38	1		06/13/23 13:38	FIELD	Field*

Sample: GF02086-13 **Sampled:** 06/12/23 11:06
Name: SG01 **Received:** 06/13/23 06:30
Matrix: Ground Water - Grab **PO #:** 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	441.5	Feet		06/12/23 11:06	1		06/12/23 11:06	GJS	Field*



ANALYTICAL RESULTS

Sample: GF02645-01

Sampled: 06/14/23 10:34

Name: AP05S

Received: 06/14/23 16:54

Matrix: Ground Water - Grab

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	46	mg/L	Q4	06/15/23 10:50	10	10	06/15/23 10:50	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/15/23 09:55	1	0.250	06/15/23 09:55	CRD	EPA 300.0 REV 2.1
Sulfate	3.1	mg/L		06/15/23 09:55	1	1.0	06/15/23 09:55	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	5.71	Feet		06/14/23 10:34	1		06/14/23 10:34	FIELD	Field*
Dissolved oxygen, Field	0.060	mg/L		06/14/23 10:34	1		06/14/23 10:34	FIELD	Field*
Oxidation Reduction Potential	-151	mV		06/14/23 10:34	1	-500	06/14/23 10:34	FIELD	Field*
pH, Field Measured	6.85	pH Units		06/14/23 10:34	1		06/14/23 10:34	FIELD	Field*
Specific Conductance, Field Measured	1699	umhos/cm		06/14/23 10:34	1		06/14/23 10:34	FIELD	Field*
Temperature, Field Measured	18.5	°C		06/14/23 10:34	1		06/14/23 10:34	FIELD	Field*
Turbidity, Field Measured	1900	NTU		06/14/23 10:34	1	0.00	06/14/23 10:34	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	850	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1400	mg/L		06/15/23 13:34	1	26	06/15/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/22/23 08:49	5	3.0	06/28/23 09:22	JMW	EPA 6020A
Arsenic	3.6	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:22	JMW	EPA 6020A
Barium	1100	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:22	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:22	JMW	EPA 6020A
Boron	330	ug/L		06/22/23 08:49	5	10	06/28/23 09:22	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:22	JMW	EPA 6020A
Calcium	110	mg/L	Q4	06/22/23 08:49	5	0.20	06/28/23 09:22	JMW	EPA 6020A
Chromium	8.6	ug/L		06/22/23 08:49	5	4.0	06/28/23 09:22	JMW	EPA 6020A
Cobalt	5.2	ug/L		06/22/23 08:49	5	2.0	06/28/23 09:22	JMW	EPA 6020A
Lead	5.1	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:22	JMW	EPA 6020A
Magnesium	50	mg/L	Q4	06/22/23 08:49	5	0.10	06/28/23 09:22	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/22/23 08:49	5	0.20	06/28/23 09:22	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:22	JMW	EPA 6020A
Potassium	4.5	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:22	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:22	JMW	EPA 6020A
Sodium	200	mg/L	Q4	06/22/23 08:49	5	0.10	06/28/23 09:22	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02645-01

Name: AP05S

Matrix: Ground Water - Grab

Sampled: 06/14/23 10:34

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:22	JMW	EPA 6020A
Lithium	35	ug/L		06/22/23 08:49	1	20	06/27/23 12:09	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02645-02

Name: AW-01

Matrix: Ground Water - Grab

Sampled: 06/14/23 12:35

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	10	mg/L		06/17/23 03:50	5	5.0	06/17/23 03:50	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/15/23 12:20	1	0.250	06/15/23 12:20	CRD	EPA 300.0 REV 2.1
Sulfate	52	mg/L		06/15/23 12:38	10	10	06/15/23 12:38	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.02	Feet		06/14/23 12:35	1		06/14/23 12:35	FIELD	Field*
Dissolved oxygen, Field	0.15	mg/L		06/14/23 12:35	1		06/14/23 12:35	FIELD	Field*
Oxidation Reduction Potential	-72.0	mV		06/14/23 12:35	1	-500	06/14/23 12:35	FIELD	Field*
pH, Field Measured	6.82	pH Units		06/14/23 12:35	1		06/14/23 12:35	FIELD	Field*
Specific Conductance, Field Measured	1275	umhos/cm		06/14/23 12:35	1		06/14/23 12:35	FIELD	Field*
Temperature, Field Measured	18.2	°C		06/14/23 12:35	1		06/14/23 12:35	FIELD	Field*
Turbidity, Field Measured	196	NTU		06/14/23 12:35	1	0.00	06/14/23 12:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	720	mg/L		06/21/23 14:18	1	10	06/21/23 14:18	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/21/23 14:18	1	10	06/21/23 14:18	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	780	mg/L		06/15/23 13:34	1	26	06/15/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/22/23 08:49	5	3.0	06/28/23 09:26	JMW	EPA 6020A
Arsenic	6.3	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:26	JMW	EPA 6020A
Barium	140	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:26	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:26	JMW	EPA 6020A
Boron	72	ug/L		06/22/23 08:49	5	10	06/28/23 09:26	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:26	JMW	EPA 6020A
Calcium	180	mg/L		06/22/23 08:49	5	0.20	06/28/23 09:26	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/22/23 08:49	5	4.0	06/28/23 09:26	JMW	EPA 6020A
Cobalt	3.4	ug/L		06/22/23 08:49	5	2.0	06/28/23 09:26	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:26	JMW	EPA 6020A
Magnesium	78	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:26	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/22/23 08:49	5	0.20	06/28/23 09:26	JMW	EPA 6020A
Molybdenum	3.4	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:26	JMW	EPA 6020A
Potassium	0.30	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:26	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:26	JMW	EPA 6020A
Sodium	18	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:26	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02645-02

Name: AW-01

Matrix: Ground Water - Grab

Sampled: 06/14/23 12:35

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:26	JMW	EPA 6020A
Lithium	< 20	ug/L		06/22/23 08:49	1	20	06/27/23 12:12	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02645-03

Name: AW-06

Matrix: Ground Water - Grab

Sampled: 06/14/23 10:33

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	35	mg/L		06/15/23 15:03	10	10	06/15/23 15:03	CRD	EPA 300.0 REV 2.1
Fluoride	0.319	mg/L		06/15/23 14:45	1	0.250	06/15/23 14:45	CRD	EPA 300.0 REV 2.1
Sulfate	21	mg/L		06/15/23 15:03	10	10	06/15/23 15:03	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	27.62	Feet		06/14/23 10:33	1		06/14/23 10:33	FIELD	Field*
Dissolved oxygen, Field	1.4	mg/L		06/14/23 10:33	1		06/14/23 10:33	FIELD	Field*
Oxidation Reduction Potential	-99.0	mV		06/14/23 10:33	1	-500	06/14/23 10:33	FIELD	Field*
pH, Field Measured	7.09	pH Units		06/14/23 10:33	1		06/14/23 10:33	FIELD	Field*
Specific Conductance, Field Measured	1030	umhos/cm		06/14/23 10:33	1		06/14/23 10:33	FIELD	Field*
Temperature, Field Measured	16.2	°C		06/14/23 10:33	1		06/14/23 10:33	FIELD	Field*
Turbidity, Field Measured	340	NTU		06/14/23 10:33	1	0.00	06/14/23 10:33	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	600	mg/L		06/15/23 13:34	1	26	06/15/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/22/23 08:49	5	3.0	06/28/23 09:30	JMW	EPA 6020A
Arsenic	3.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:30	JMW	EPA 6020A
Barium	160	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:30	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:30	JMW	EPA 6020A
Boron	120	ug/L		06/22/23 08:49	5	10	06/28/23 09:30	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:30	JMW	EPA 6020A
Calcium	100	mg/L		06/22/23 08:49	5	0.20	06/28/23 09:30	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/22/23 08:49	5	4.0	06/28/23 09:30	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/22/23 08:49	5	2.0	06/28/23 09:30	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:30	JMW	EPA 6020A
Magnesium	45	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:30	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/22/23 08:49	5	0.20	06/28/23 09:30	JMW	EPA 6020A
Molybdenum	4.9	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:30	JMW	EPA 6020A
Potassium	0.78	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:30	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:30	JMW	EPA 6020A
Sodium	59	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:30	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02645-03

Name: AW-06

Matrix: Ground Water - Grab

Sampled: 06/14/23 10:33

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:30	JMW	EPA 6020A
Lithium	< 20	ug/L		06/22/23 08:49	1	20	06/27/23 12:14	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02645-04

Name: AW-08

Matrix: Ground Water - Grab

Sampled: 06/14/23 14:24

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	16	mg/L		06/15/23 16:15	5	5.0	06/15/23 16:15	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/15/23 16:15	1	0.250	06/15/23 16:15	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		06/15/23 15:57	1	1.0	06/15/23 15:57	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	23.92	Feet		06/14/23 14:24	1		06/14/23 14:24	FIELD	Field*
Dissolved oxygen, Field	8.2	mg/L		06/14/23 14:24	1		06/14/23 14:24	FIELD	Field*
Oxidation Reduction Potential	-141	mV		06/14/23 14:24	1	-500	06/14/23 14:24	FIELD	Field*
pH, Field Measured	7.09	pH Units		06/14/23 14:24	1		06/14/23 14:24	FIELD	Field*
Specific Conductance, Field Measured	1353	umhos/cm		06/14/23 14:24	1		06/14/23 14:24	FIELD	Field*
Temperature, Field Measured	19.4	°C		06/14/23 14:24	1		06/14/23 14:24	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		06/14/23 14:24	1	0.00	06/14/23 14:24	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	710	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	660	mg/L		06/15/23 13:34	1	26	06/15/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/22/23 08:49	5	3.0	06/28/23 09:33	JMW	EPA 6020A
Arsenic	10	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:33	JMW	EPA 6020A
Barium	190	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:33	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:33	JMW	EPA 6020A
Boron	92	ug/L		06/22/23 08:49	5	10	06/28/23 09:33	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:33	JMW	EPA 6020A
Calcium	140	mg/L		06/22/23 08:49	5	0.20	06/28/23 09:33	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/22/23 08:49	5	4.0	06/28/23 09:33	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/22/23 08:49	5	2.0	06/28/23 09:33	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:33	JMW	EPA 6020A
Magnesium	59	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:33	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/22/23 08:49	5	0.20	06/28/23 09:33	JMW	EPA 6020A
Molybdenum	1.6	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:33	JMW	EPA 6020A
Potassium	1.5	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:33	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:33	JMW	EPA 6020A
Sodium	61	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:33	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02645-04

Name: AW-08

Matrix: Ground Water - Grab

Sampled: 06/14/23 14:24

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:33	JMW	EPA 6020A
Lithium	< 20	ug/L		06/22/23 08:49	1	20	06/27/23 12:15	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02645-05

Name: AW-18

Matrix: Ground Water - Grab

Sampled: 06/14/23 12:08

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	97	mg/L		06/15/23 18:04	10	10	06/15/23 18:04	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/15/23 17:46	1	0.250	06/15/23 17:46	CRD	EPA 300.0 REV 2.1
Sulfate	7.7	mg/L		06/15/23 17:46	1	1.0	06/15/23 17:46	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	28.14	Feet		06/14/23 12:08	1		06/14/23 12:08	FIELD	Field*
Dissolved oxygen, Field	1.7	mg/L		06/14/23 12:08	1		06/14/23 12:08	FIELD	Field*
Oxidation Reduction Potential	-105	mV		06/14/23 12:08	1	-500	06/14/23 12:08	FIELD	Field*
pH, Field Measured	6.73	pH Units		06/14/23 12:08	1		06/14/23 12:08	FIELD	Field*
Specific Conductance, Field Measured	1790	umhos/cm		06/14/23 12:08	1		06/14/23 12:08	FIELD	Field*
Temperature, Field Measured	17.5	°C		06/14/23 12:08	1		06/14/23 12:08	FIELD	Field*
Turbidity, Field Measured	218	NTU		06/14/23 12:08	1	0.00	06/14/23 12:08	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	800	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	930	mg/L		06/15/23 13:34	1	26	06/15/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/22/23 08:49	5	3.0	06/28/23 09:37	JMW	EPA 6020A
Arsenic	3.3	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:37	JMW	EPA 6020A
Barium	1300	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:37	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:37	JMW	EPA 6020A
Boron	1300	ug/L		06/22/23 08:49	5	10	06/28/23 09:37	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:37	JMW	EPA 6020A
Calcium	120	mg/L		06/22/23 08:49	5	0.20	06/28/23 09:37	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/22/23 08:49	5	4.0	06/28/23 09:37	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/22/23 08:49	5	2.0	06/28/23 09:37	JMW	EPA 6020A
Lead	1.1	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:37	JMW	EPA 6020A
Magnesium	52	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:37	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/22/23 08:49	5	0.20	06/28/23 09:37	JMW	EPA 6020A
Molybdenum	2.6	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:37	JMW	EPA 6020A
Potassium	3.5	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:37	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:37	JMW	EPA 6020A
Sodium	170	mg/L		06/22/23 08:49	5	0.10	06/28/23 09:37	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02645-05

Name: AW-18

Matrix: Ground Water - Grab

Sampled: 06/14/23 12:08

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 09:37	JMW	EPA 6020A
Lithium	22	ug/L		06/22/23 08:49	1	20	06/27/23 12:16	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02645-06

Name: AW-19

Matrix: Ground Water - Grab

Sampled: 06/14/23 13:40

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	82	mg/L		06/15/23 19:16	10	10	06/15/23 19:16	CRD	EPA 300.0 REV 2.1
Fluoride	0.266	mg/L		06/15/23 18:58	1	0.250	06/15/23 18:58	CRD	EPA 300.0 REV 2.1
Sulfate	52	mg/L		06/15/23 19:16	10	10	06/15/23 19:16	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.7	Feet		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Oxidation Reduction Potential	-52.0	mV		06/14/23 13:40	1	-500	06/14/23 13:40	FIELD	Field*
pH, Field Measured	6.94	pH Units		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Specific Conductance, Field Measured	1110	umhos/cm		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Temperature, Field Measured	17.0	°C		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Turbidity, Field Measured	27.9	NTU		06/14/23 13:40	1	0.00	06/14/23 13:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	490	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	620	mg/L		06/15/23 13:34	1	26	06/15/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/22/23 08:49	5	3.0	06/28/23 10:17	JMW	EPA 6020A
Arsenic	15	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:17	JMW	EPA 6020A
Barium	200	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:17	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:17	JMW	EPA 6020A
Boron	2300	ug/L		06/22/23 08:49	5	10	06/28/23 10:17	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:17	JMW	EPA 6020A
Calcium	120	mg/L		06/22/23 08:49	5	0.20	06/28/23 10:17	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/22/23 08:49	5	4.0	06/28/23 10:17	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/22/23 08:49	5	2.0	06/28/23 10:17	JMW	EPA 6020A
Lead	1.7	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:17	JMW	EPA 6020A
Magnesium	55	mg/L		06/22/23 08:49	5	0.10	06/28/23 10:17	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/22/23 08:49	5	0.20	06/28/23 10:17	JMW	EPA 6020A
Molybdenum	3.9	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:17	JMW	EPA 6020A
Potassium	1.2	mg/L		06/22/23 08:49	5	0.10	06/28/23 10:17	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:17	JMW	EPA 6020A
Sodium	54	mg/L		06/22/23 08:49	5	0.10	06/28/23 10:17	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02645-06

Name: AW-19

Matrix: Ground Water - Grab

Sampled: 06/14/23 13:40

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:17	JMW	EPA 6020A
Lithium	< 20	ug/L		06/22/23 08:49	1	20	06/27/23 12:17	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02645-07
Name: AW-19 DUP
Matrix: Ground Water - Field Duplicate

Sampled: 06/14/23 13:40
Received: 06/14/23 16:54
PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	79	mg/L		06/15/23 21:04	10	10	06/15/23 21:04	CRD	EPA 300.0 REV 2.1
Fluoride	0.263	mg/L		06/15/23 20:46	1	0.250	06/15/23 20:46	CRD	EPA 300.0 REV 2.1
Sulfate	51	mg/L		06/15/23 21:04	10	10	06/15/23 21:04	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	14.7	Feet		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Oxidation Reduction Potential	-52.0	mV		06/14/23 13:40	1	-500	06/14/23 13:40	FIELD	Field*
pH, Field Measured	6.94	pH Units		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Specific Conductance, Field Measured	1110	umhos/cm		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Temperature, Field Measured	17.0	°C		06/14/23 13:40	1		06/14/23 13:40	FIELD	Field*
Turbidity, Field Measured	27.9	NTU		06/14/23 13:40	1	0.00	06/14/23 13:40	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	480	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	760	mg/L		06/15/23 13:34	1	26	06/15/23 13:34	MKH	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		06/22/23 08:49	5	3.0	06/28/23 10:21	JMW	EPA 6020A
Arsenic	16	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:21	JMW	EPA 6020A
Barium	200	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:21	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:21	JMW	EPA 6020A
Boron	2300	ug/L		06/22/23 08:49	5	10	06/28/23 10:21	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:21	JMW	EPA 6020A
Calcium	120	mg/L		06/22/23 08:49	5	0.20	06/28/23 10:21	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/22/23 08:49	5	4.0	06/28/23 10:21	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/22/23 08:49	5	2.0	06/28/23 10:21	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:21	JMW	EPA 6020A
Magnesium	55	mg/L		06/22/23 08:49	5	0.10	06/28/23 10:21	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/22/23 08:49	5	0.20	06/28/23 10:21	JMW	EPA 6020A
Molybdenum	3.8	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:21	JMW	EPA 6020A
Potassium	0.94	mg/L		06/22/23 08:49	5	0.10	06/28/23 10:21	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:21	JMW	EPA 6020A
Sodium	54	mg/L		06/22/23 08:49	5	0.10	06/28/23 10:21	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02645-07
Name: AW-19 DUP
Matrix: Ground Water - Field Duplicate

Sampled: 06/14/23 13:40
Received: 06/14/23 16:54
PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:21	JMW	EPA 6020A
Lithium	< 20	ug/L		06/22/23 08:49	1	20	06/27/23 12:21	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02645-08

Name: AW-21

Matrix: Ground Water - Grab

Sampled: 06/14/23 15:40

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	97	mg/L		06/15/23 22:17	10	10	06/15/23 22:17	CRD	EPA 300.0 REV 2.1
Fluoride	0.312	mg/L		06/15/23 21:59	1	0.250	06/15/23 21:59	CRD	EPA 300.0 REV 2.1
Sulfate	240	mg/L		06/15/23 22:35	100	100	06/15/23 22:35	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	18.48	Feet		06/14/23 15:40	1		06/14/23 15:40	FIELD	Field*
Dissolved oxygen, Field	2.7	mg/L		06/14/23 15:40	1		06/14/23 15:40	FIELD	Field*
Oxidation Reduction Potential	-28.0	mV		06/14/23 15:40	1	-500	06/14/23 15:40	FIELD	Field*
pH, Field Measured	7.12	pH Units		06/14/23 15:40	1		06/14/23 15:40	FIELD	Field*
Specific Conductance, Field Measured	983.0	umhos/cm		06/14/23 15:40	1		06/14/23 15:40	FIELD	Field*
Temperature, Field Measured	17.4	°C		06/14/23 15:40	1		06/14/23 15:40	FIELD	Field*
Turbidity, Field Measured	6.40	NTU		06/14/23 15:40	1	0.00	06/14/23 15:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	190	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		06/16/23 11:42	1	10	06/16/23 11:42	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	680	mg/L		06/15/23 13:34	1	26	06/15/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/22/23 08:49	5	3.0	06/28/23 10:24	JMW	EPA 6020A
Arsenic	1.8	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:24	JMW	EPA 6020A
Barium	59	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:24	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:24	JMW	EPA 6020A
Boron	8700	ug/L		06/22/23 08:49	5	10	06/28/23 10:24	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:24	JMW	EPA 6020A
Calcium	110	mg/L		06/22/23 08:49	5	0.20	06/28/23 10:24	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/22/23 08:49	5	4.0	06/28/23 10:24	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/22/23 08:49	5	2.0	06/28/23 10:24	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:24	JMW	EPA 6020A
Magnesium	36	mg/L		06/22/23 08:49	5	0.10	06/28/23 10:24	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/22/23 08:49	5	0.20	06/28/23 10:24	JMW	EPA 6020A
Molybdenum	17	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:24	JMW	EPA 6020A
Potassium	2.0	mg/L		06/22/23 08:49	5	0.10	06/28/23 10:24	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:24	JMW	EPA 6020A
Sodium	55	mg/L		06/22/23 08:49	5	0.10	06/28/23 10:24	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02645-08

Name: AW-21

Matrix: Ground Water - Grab

Sampled: 06/14/23 15:40

Received: 06/14/23 16:54

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/22/23 08:49	5	1.0	06/28/23 10:24	JMW	EPA 6020A
Lithium	< 20	ug/L		06/22/23 08:49	1	20	06/27/23 12:22	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02896-01

Sampled: 06/15/23 11:03

Name: AP07S

Received: 06/15/23 15:22

Matrix: Ground Water - Grab

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	76	mg/L	Q4	06/15/23 19:37	25	25	06/15/23 19:37	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/15/23 18:43	1	0.250	06/15/23 18:43	CRD	EPA 300.0 REV 2.1
Sulfate	480	mg/L		06/17/23 05:05	50	50	06/17/23 05:05	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.61	Feet		06/15/23 11:03	1		06/15/23 11:03	FIELD	Field*
Dissolved oxygen, Field	2.0	mg/L		06/15/23 11:03	1		06/15/23 11:03	FIELD	Field*
Oxidation Reduction Potential	61.5	mV		06/15/23 11:03	1	-500	06/15/23 11:03	FIELD	Field*
pH, Field Measured	6.82	pH Units		06/15/23 11:03	1		06/15/23 11:03	FIELD	Field*
Specific Conductance, Field Measured	1439	umhos/cm		06/15/23 11:03	1		06/15/23 11:03	FIELD	Field*
Temperature, Field Measured	20.6	°C		06/15/23 11:03	1		06/15/23 11:03	FIELD	Field*
Turbidity, Field Measured	901	NTU		06/15/23 11:03	1	0.00	06/15/23 11:03	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	490	mg/L		06/27/23 12:04	1	2.0	06/27/23 12:04	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		06/27/23 12:04	1	2.0	06/27/23 12:04	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1600	mg/L		06/16/23 13:34	1	26	06/16/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/23/23 11:12	5	3.0	06/28/23 12:25	JMW	EPA 6020A
Arsenic	1.1	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:25	JMW	EPA 6020A
Barium	110	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:25	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:25	JMW	EPA 6020A
Boron	18000	ug/L	Q4	06/23/23 11:12	100	200	06/28/23 13:15	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:25	JMW	EPA 6020A
Calcium	240	mg/L		06/23/23 11:12	5	0.20	06/28/23 12:25	JMW	EPA 6020A
Chromium	13	ug/L		06/23/23 11:12	5	4.0	06/28/23 12:25	JMW	EPA 6020A
Cobalt	4.3	ug/L		06/23/23 11:12	5	2.0	06/28/23 12:25	JMW	EPA 6020A
Lead	3.2	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:25	JMW	EPA 6020A
Magnesium	93	mg/L	Q4	06/23/23 11:12	5	0.10	06/28/23 12:25	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/23/23 11:12	5	0.20	06/28/23 12:25	JMW	EPA 6020A
Molybdenum	1.2	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:25	JMW	EPA 6020A
Potassium	1.2	mg/L		06/23/23 11:12	5	0.10	06/28/23 12:25	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:25	JMW	EPA 6020A
Sodium	73	mg/L	Q4	06/23/23 11:12	5	0.10	06/28/23 12:25	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02896-01

Name: AP07S

Matrix: Ground Water - Grab

Sampled: 06/15/23 11:03

Received: 06/15/23 15:22

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:25	JMW	EPA 6020A
Lithium	< 20	ug/L		06/23/23 11:12	1	20	06/27/23 12:32	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GF02896-02

Sampled: 06/15/23 11:31

Name: AW-05

Received: 06/15/23 15:22

Matrix: Ground Water - Grab

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	71	mg/L		06/15/23 21:25	10	10	06/15/23 21:25	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/15/23 21:07	1	0.250	06/15/23 21:07	CRD	EPA 300.0 REV 2.1
Sulfate	350	mg/L		06/15/23 22:20	100	100	06/15/23 22:20	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.2	Feet		06/15/23 11:31	1		06/15/23 11:31	FIELD	Field*
Dissolved oxygen, Field	0.27	mg/L		06/15/23 11:31	1		06/15/23 11:31	FIELD	Field*
Oxidation Reduction Potential	95.0	mV		06/15/23 11:31	1	-500	06/15/23 11:31	FIELD	Field*
pH, Field Measured	6.96	pH Units		06/15/23 11:31	1		06/15/23 11:31	FIELD	Field*
Specific Conductance, Field Measured	1550	umhos/cm		06/15/23 11:31	1		06/15/23 11:31	FIELD	Field*
Temperature, Field Measured	23.9	°C		06/15/23 11:31	1		06/15/23 11:31	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		06/15/23 11:31	1	0.00	06/15/23 11:31	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	410	mg/L		06/27/23 12:04	1	2.0	06/27/23 12:04	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		06/27/23 12:04	1	2.0	06/27/23 12:04	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1100	mg/L		06/16/23 13:34	1	26	06/16/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/23/23 11:12	5	3.0	06/28/23 12:29	JMW	EPA 6020A
Arsenic	4.5	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:29	JMW	EPA 6020A
Barium	160	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:29	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:29	JMW	EPA 6020A
Boron	3600	ug/L		06/23/23 11:12	5	10	06/28/23 12:29	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:29	JMW	EPA 6020A
Calcium	170	mg/L		06/23/23 11:12	5	0.20	06/28/23 12:29	JMW	EPA 6020A
Chromium	10	ug/L		06/23/23 11:12	5	4.0	06/28/23 12:29	JMW	EPA 6020A
Cobalt	6.4	ug/L		06/23/23 11:12	5	2.0	06/28/23 12:29	JMW	EPA 6020A
Lead	4.4	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:29	JMW	EPA 6020A
Magnesium	82	mg/L		06/23/23 11:12	5	0.10	06/28/23 12:29	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/23/23 11:12	5	0.20	06/28/23 12:29	JMW	EPA 6020A
Molybdenum	2.3	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:29	JMW	EPA 6020A
Potassium	2.0	mg/L		06/23/23 11:12	5	0.10	06/28/23 12:29	JMW	EPA 6020A
Selenium	< 1.0	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:29	JMW	EPA 6020A
Sodium	74	mg/L		06/23/23 11:12	5	0.10	06/28/23 12:29	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GF02896-02

Name: AW-05

Matrix: Ground Water - Grab

Sampled: 06/15/23 11:31

Received: 06/15/23 15:22

PO #: 1940007191

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		06/23/23 11:12	5	1.0	06/28/23 12:29	JMW	EPA 6020A
Lithium	< 20	ug/L		06/23/23 11:12	1	20	06/27/23 12:38	BRS	EPA 6010B



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B335919 - No Prep - SM 2540C</u>									
Blank (B335919-BLK1)					Prepared & Analyzed: 06/13/23				
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B335919-BS1)					Prepared & Analyzed: 06/13/23				
Solids - total dissolved solids (TDS)	1050	mg/L		1000	105	84.9-109			
Duplicate (B335919-DUP2)	Sample: GF02086-01				Prepared & Analyzed: 06/13/23				
Solids - total dissolved solids (TDS)	755	mg/L		790			5	5	
<u>Batch B335988 - No Prep - SM 2540C</u>									
Blank (B335988-BLK1)					Prepared & Analyzed: 06/14/23				
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B335988-BS1)					Prepared & Analyzed: 06/14/23				
Solids - total dissolved solids (TDS)	943	mg/L		1000	94	84.9-109			
Duplicate (B335988-DUP1)	Sample: GF02086-11				Prepared & Analyzed: 06/14/23				
Solids - total dissolved solids (TDS)	2560	mg/L		2580			0.8	5	
<u>Batch B336023 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B336023-MS1)	Sample: GF02086-01				Prepared & Analyzed: 06/13/23				
Sulfate	1.63	mg/L		1.500	ND	109	80-120		
Chloride	< 1.0	mg/L	Q1	1.500	29	NR	80-120		
Matrix Spike Dup (B336023-MSD1)	Sample: GF02086-01				Prepared & Analyzed: 06/13/23				
Sulfate	1.73	mg/L		1.500	ND	115	80-120	6	20
Chloride	< 1.0	mg/L	Q2	1.500	29	NR	80-120		20
Fluoride	1.53	mg/L		1.500	ND	102	80-120	2	20
<u>Batch B336099 - SW 3015 - EPA 6010B</u>									
Blank (B336099-BLK1)					Prepared: 06/15/23	Analyzed: 06/20/23			
Lithium	< 20	ug/L							
LCS (B336099-BS1)					Prepared: 06/15/23	Analyzed: 06/20/23			
Lithium	590	ug/L		555.6	106	80-120			
Matrix Spike (B336099-MS1)	Sample: GF02086-11				Prepared: 06/15/23	Analyzed: 06/20/23			
Lithium	850	ug/L		555.6	288	101	75-125		
Matrix Spike Dup (B336099-MSD1)	Sample: GF02086-11				Prepared: 06/15/23	Analyzed: 06/20/23			
Lithium	869	ug/L		555.6	288	105	75-125	2	20
<u>Batch B336099 - SW 3015 - EPA 6020A</u>									
Blank (B336099-BLK1)					Prepared: 06/15/23	Analyzed: 06/26/23			
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit				
Blank (B336099-BLK1)					Prepared: 06/15/23 Analyzed: 06/26/23								
Magnesium	< 0.10	mg/L											
Mercury	< 0.20	ug/L											
Molybdenum	< 1.0	ug/L											
Potassium	< 0.10	mg/L											
Selenium	< 1.0	ug/L											
Sodium	< 0.10	mg/L											
Thallium	< 1.0	ug/L											
LCS (B336099-BS1)					Prepared: 06/15/23 Analyzed: 06/26/23								
Antimony	579	ug/L		555.6	104	80-120							
Arsenic	584	ug/L		555.6	105	80-120							
Barium	577	ug/L		555.6	104	80-120							
Beryllium	547	ug/L		555.6	98	80-120							
Boron	521	ug/L		555.6	94	80-120							
Cadmium	591	ug/L		555.6	106	80-120							
Calcium	6.01	mg/L		5.556	108	80-120							
Chromium	599	ug/L		555.6	108	80-120							
Cobalt	587	ug/L		555.6	106	80-120							
Lead	587	ug/L		555.6	106	80-120							
Magnesium	6.04	mg/L		5.556	109	80-120							
Mercury	56.0	ug/L		55.56	101	80-120							
Molybdenum	576	ug/L		555.6	104	80-120							
Potassium	5.85	mg/L		5.556	105	80-120							
Selenium	587	ug/L		555.6	106	80-120							
Sodium	5.91	mg/L		5.556	106	80-120							
Thallium	581	ug/L		555.6	105	80-120							
Matrix Spike (B336099-MS1)	Sample: GF02086-11				Prepared: 06/15/23 Analyzed: 06/26/23								
Antimony	561	ug/L		555.6	2.71	100	75-125						
Arsenic	738	ug/L		555.6	171	102	75-125						
Barium	568	ug/L		555.6	17.8	99	75-125						
Beryllium	527	ug/L		555.6	ND	95	75-125						
Boron	14300	ug/L	E, Q4	555.6	17200	NR	75-125						
Cadmium	569	ug/L		555.6	1.63	102	75-125						
Calcium	41.4	mg/L		5.556	35.6	103	75-125						
Chromium	564	ug/L		555.6	ND	102	75-125						
Cobalt	553	ug/L		555.6	ND	100	75-125						
Lead	546	ug/L		555.6	ND	98	75-125						
Magnesium	5.74	mg/L		5.556	0.0375	103	75-125						
Mercury	56.8	ug/L		55.56	0.189	102	75-125						
Molybdenum	3590	ug/L		555.6	3160	79	75-125						
Potassium	120	mg/L	Q4	5.556	118	39	75-125						
Selenium	726	ug/L		555.6	182	98	75-125						
Sodium	727	mg/L	E, Q4	5.556	1120	NR	75-125						
Thallium	535	ug/L		555.6	ND	96	75-125						
Matrix Spike Dup (B336099-MSD1)	Sample: GF02086-11				Prepared: 06/15/23 Analyzed: 06/26/23								
Antimony	568	ug/L		555.6	2.71	102	75-125	1	20				
Arsenic	738	ug/L		555.6	171	102	75-125	0.04	20				
Barium	577	ug/L		555.6	17.8	101	75-125	1	20				



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B336099-MSD1)	Sample: GF02086-11			Prepared: 06/15/23 Analyzed: 06/26/23					
Beryllium	531	ug/L		555.6	ND	96	75-125	0.8	20
Boron	14500	ug/L	E, Q4	555.6	17200	NR	75-125	2	20
Cadmium	570	ug/L		555.6	1.63	102	75-125	0.1	20
Calcium	41.5	mg/L		5.556	35.6	105	75-125	0.3	20
Chromium	564	ug/L		555.6	ND	102	75-125	0.05	20
Cobalt	555	ug/L		555.6	ND	100	75-125	0.3	20
Lead	551	ug/L		555.6	ND	99	75-125	0.9	20
Magnesium	5.76	mg/L		5.556	0.0375	103	75-125	0.4	20
Mercury	57.2	ug/L		55.56	0.189	103	75-125	0.7	20
Molybdenum	3610	ug/L		555.6	3160	82	75-125	0.5	20
Potassium	121	mg/L	Q4	5.556	118	43	75-125	0.2	20
Selenium	728	ug/L		555.6	182	98	75-125	0.1	20
Sodium	731	mg/L	E, Q4	5.556	1120	NR	75-125	0.6	20
Thallium	541	ug/L		555.6	ND	97	75-125	1	20
<u>Batch B336128 - No Prep - SM 2540C</u>									
Blank (B336128-BLK1)	Prepared & Analyzed: 06/15/23								
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B336128-BS1)	Prepared & Analyzed: 06/15/23								
Solids - total dissolved solids (TDS)	983	mg/L		1000		98	84.9-109		
Duplicate (B336128-DUP1)	Sample: GF02645-01			Prepared & Analyzed: 06/15/23					
Solids - total dissolved solids (TDS)	1370	mg/L			1360			1	5
<u>Batch B336170 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B336170-MS1)	Sample: GF02086-11			Prepared & Analyzed: 06/14/23					
Chloride	< 1.0	mg/L	Q4	1.500	120	NR	80-120		
Matrix Spike Dup (B336170-MSD1)	Sample: GF02086-11			Prepared & Analyzed: 06/14/23					
Chloride	< 1.0	mg/L	Q4	1.500	120	NR	80-120		20
<u>Batch B336245 - No Prep - SM 2540C</u>									
Blank (B336245-BLK1)	Prepared & Analyzed: 06/16/23								
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B336245-BS1)	Prepared & Analyzed: 06/16/23								
Solids - total dissolved solids (TDS)	1000	mg/L		1000		100	84.9-109		
Duplicate (B336245-DUP1)	Sample: GF02896-01			Prepared & Analyzed: 06/16/23					
Solids - total dissolved solids (TDS)	1520	mg/L			1550			2	5
Duplicate (B336245-DUP2)	Sample: GF02896-07			Prepared & Analyzed: 06/16/23					
Solids - total dissolved solids (TDS)	15.0	mg/L			15.0			0	5
<u>Batch B336274 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B336274-MS3)	Sample: GF02645-01			Prepared & Analyzed: 06/15/23					
Sulfate	4.91	mg/L		1.500	3.14	118	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	46	NR	80-120		
Fluoride	1.44	mg/L		1.500	ND	96	80-120		
Matrix Spike Dup (B336274-MSD3)	Sample: GF02645-01			Prepared & Analyzed: 06/15/23					
Chloride	< 1.0	mg/L	Q4	1.500	46	NR	80-120		20
Fluoride	1.45	mg/L		1.500	ND	96	80-120	0.2	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B336274-MSD3)	Sample: GF02645-01				Prepared & Analyzed: 06/15/23				
Sulfate	4.87	mg/L		1.500	3.14	115	80-120	0.8	20
<u>Batch B336277 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B336277-MS1)	Sample: GF02896-01				Prepared & Analyzed: 06/15/23				
Fluoride	1.60	mg/L		1.500	0.151	97	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	76	NR	80-120		
Matrix Spike Dup (B336277-MSD1)	Sample: GF02896-01				Prepared & Analyzed: 06/15/23				
Fluoride	1.56	mg/L		1.500	0.151	94	80-120	2	20
Chloride	1.0E9	mg/L	Q4	1.500	76	NR	80-120	0	20
<u>Batch B336326 - No Prep - SM 2320B 1997</u>									
Duplicate (B336326-DUP1)	Sample: GF02086-01				Prepared & Analyzed: 06/16/23				
Alkalinity - bicarbonate as CaCO3	775	mg/L			788			2	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B336326-DUP2)	Sample: GF02086-06				Prepared & Analyzed: 06/16/23				
Alkalinity - bicarbonate as CaCO3	1100	mg/L			1040			6	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B336326-DUP3)	Sample: GF02086-11				Prepared & Analyzed: 06/16/23				
Alkalinity - carbonate as CaCO3	200	mg/L			200			0	10
Alkalinity - bicarbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B336326-DUP4)	Sample: GF02645-01				Prepared & Analyzed: 06/16/23				
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	850	mg/L			850			0	10
<u>Batch B336438 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B336438-MS3)	Sample: GF02896-07				Prepared & Analyzed: 06/16/23				
Chloride	1.0E9	mg/L	Q4	1.500	23	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	122	NR	80-120		
Matrix Spike Dup (B336438-MSD3)	Sample: GF02896-07				Prepared & Analyzed: 06/16/23				
Chloride	1.0E9	mg/L	Q4	1.500	23	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	122	NR	80-120	0	20
<u>Batch B336745 - SW 3015 - EPA 6010B</u>									
Blank (B336745-BLK1)					Prepared: 06/22/23	Analyzed: 06/27/23			
Lithium	< 20	ug/L							
LCS (B336745-BS1)					Prepared: 06/22/23	Analyzed: 06/27/23			
Lithium	594	ug/L			555.6	107	80-120		
Matrix Spike (B336745-MS1)	Sample: GF02645-01				Prepared: 06/22/23	Analyzed: 06/27/23			
Lithium	588	ug/L			555.6	34.6	100	75-125	
Matrix Spike Dup (B336745-MSD1)	Sample: GF02645-01				Prepared: 06/22/23	Analyzed: 06/27/23			
Lithium	586	ug/L			555.6	34.6	99	75-125	0.3
<u>Batch B336745 - SW 3015 - EPA 6020A</u>									
Blank (B336745-BLK1)					Prepared: 06/22/23	Analyzed: 06/28/23			
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit				
Blank (B336745-BLK1)					Prepared: 06/22/23 Analyzed: 06/28/23								
Beryllium	< 1.0	ug/L											
Boron	< 10	ug/L											
Cadmium	< 1.0	ug/L											
Calcium	< 0.20	mg/L											
Chromium	< 4.0	ug/L											
Cobalt	< 2.0	ug/L											
Lead	< 1.0	ug/L											
Magnesium	< 0.10	mg/L											
Mercury	< 0.20	ug/L											
Molybdenum	< 1.0	ug/L											
Potassium	< 0.10	mg/L											
Selenium	< 1.0	ug/L											
Sodium	< 0.10	mg/L											
Thallium	< 1.0	ug/L											
LCS (B336745-BS1)					Prepared: 06/22/23 Analyzed: 06/28/23								
Antimony	545	ug/L		555.6	98	80-120							
Arsenic	559	ug/L		555.6	101	80-120							
Barium	549	ug/L		555.6	99	80-120							
Beryllium	512	ug/L		555.6	92	80-120							
Boron	484	ug/L		555.6	87	80-120							
Cadmium	544	ug/L		555.6	98	80-120							
Calcium	5.81	mg/L		5.556	105	80-120							
Chromium	553	ug/L		555.6	100	80-120							
Cobalt	545	ug/L		555.6	98	80-120							
Lead	528	ug/L		555.6	95	80-120							
Magnesium	5.96	mg/L		5.556	107	80-120							
Mercury	52.5	ug/L		55.56	95	80-120							
Molybdenum	536	ug/L		555.6	96	80-120							
Potassium	5.69	mg/L		5.556	102	80-120							
Selenium	566	ug/L		555.6	102	80-120							
Sodium	5.90	mg/L		5.556	106	80-120							
Thallium	528	ug/L		555.6	95	80-120							
Matrix Spike (B336745-MS1)	Sample: GF02645-01				Prepared: 06/22/23 Analyzed: 06/28/23								
Antimony	517	ug/L		555.6	ND	93	75-125						
Arsenic	543	ug/L		555.6	3.55	97	75-125						
Barium	1610	ug/L		555.6	1110	90	75-125						
Beryllium	514	ug/L		555.6	ND	92	75-125						
Boron	798	ug/L		555.6	334	84	75-125						
Cadmium	541	ug/L		555.6	ND	97	75-125						
Calcium	114	mg/L	Q4	5.556	113	6	75-125						
Chromium	548	ug/L		555.6	8.61	97	75-125						
Cobalt	541	ug/L		555.6	5.15	97	75-125						
Lead	520	ug/L		555.6	5.06	93	75-125						
Magnesium	53.0	mg/L	Q4	5.556	49.9	55	75-125						
Mercury	53.9	ug/L		55.56	ND	97	75-125						
Molybdenum	540	ug/L		555.6	0.789	97	75-125						
Potassium	10.0	mg/L		5.556	4.46	100	75-125						



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B336745-MS1)	Sample: GF02645-01			Prepared: 06/22/23 Analyzed: 06/28/23					
Selenium	549	ug/L		555.6	ND	99	75-125		
Sodium	190	mg/L	Q4	5.556	196	NR	75-125		
Thallium	517	ug/L		555.6	ND	93	75-125		
Matrix Spike Dup (B336745-MSD1)	Sample: GF02645-01			Prepared: 06/22/23 Analyzed: 06/28/23					
Antimony	513	ug/L		555.6	ND	92	75-125	0.9	20
Arsenic	539	ug/L		555.6	3.55	96	75-125	0.7	20
Barium	1590	ug/L		555.6	1110	87	75-125	1	20
Beryllium	519	ug/L		555.6	ND	93	75-125	1	20
Boron	795	ug/L		555.6	334	83	75-125	0.4	20
Cadmium	533	ug/L		555.6	ND	96	75-125	1	20
Calcium	113	mg/L	Q4	5.556	113	4	75-125	0.09	20
Chromium	545	ug/L		555.6	8.61	97	75-125	0.6	20
Cobalt	539	ug/L		555.6	5.15	96	75-125	0.5	20
Lead	516	ug/L		555.6	5.06	92	75-125	0.8	20
Magnesium	53.0	mg/L	Q4	5.556	49.9	55	75-125	0.02	20
Mercury	52.7	ug/L		55.56	ND	95	75-125	2	20
Molybdenum	535	ug/L		555.6	0.789	96	75-125	1	20
Potassium	9.94	mg/L		5.556	4.46	99	75-125	1	20
Selenium	551	ug/L		555.6	ND	99	75-125	0.3	20
Sodium	190	mg/L	Q4	5.556	196	NR	75-125	0.01	20
Thallium	510	ug/L		555.6	ND	92	75-125	1	20
<u>Batch B336880 - SW 3015 - EPA 6010B</u>									
Blank (B336880-BLK1)	Prepared: 06/23/23 Analyzed: 06/27/23								
Lithium	< 20	ug/L							
LCS (B336880-BS1)	Prepared: 06/23/23 Analyzed: 06/27/23								
Lithium	565	ug/L		555.6	102	80-120			
Matrix Spike (B336880-MS1)	Sample: GF02896-01			Prepared: 06/23/23 Analyzed: 06/27/23					
Lithium	558	ug/L		555.6	8.76	99	75-125		
Matrix Spike Dup (B336880-MSD1)	Sample: GF02896-01			Prepared: 06/23/23 Analyzed: 06/27/23					
Lithium	568	ug/L		555.6	8.76	101	75-125	2	20
<u>Batch B336880 - SW 3015 - EPA 6020A</u>									
Blank (B336880-BLK1)	Prepared: 06/23/23 Analyzed: 06/28/23								
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit				
Blank (B336880-BLK1)					Prepared: 06/23/23 Analyzed: 06/28/23								
Potassium	< 0.10	mg/L											
Selenium	< 1.0	ug/L											
Sodium	< 0.10	mg/L											
Thallium	< 1.0	ug/L											
LCS (B336880-BS1)					Prepared: 06/23/23 Analyzed: 06/28/23								
Antimony	537	ug/L		555.6		97	80-120						
Arsenic	547	ug/L		555.6		98	80-120						
Barium	537	ug/L		555.6		97	80-120						
Beryllium	518	ug/L		555.6		93	80-120						
Boron	495	ug/L		555.6		89	80-120						
Cadmium	538	ug/L		555.6		97	80-120						
Calcium	5.67	mg/L		5.556		102	80-120						
Chromium	548	ug/L		555.6		99	80-120						
Cobalt	544	ug/L		555.6		98	80-120						
Lead	526	ug/L		555.6		95	80-120						
Magnesium	5.96	mg/L		5.556		107	80-120						
Mercury	51.9	ug/L		55.56		93	80-120						
Molybdenum	532	ug/L		555.6		96	80-120						
Potassium	5.61	mg/L		5.556		101	80-120						
Selenium	561	ug/L		555.6		101	80-120						
Sodium	5.90	mg/L		5.556		106	80-120						
Thallium	527	ug/L		555.6		95	80-120						
Matrix Spike (B336880-MS1)	Sample: GF02896-01				Prepared: 06/23/23 Analyzed: 06/28/23								
Antimony	536	ug/L		555.6	ND	97	75-125						
Arsenic	558	ug/L		555.6	1.06	100	75-125						
Barium	660	ug/L		555.6	114	98	75-125						
Beryllium	529	ug/L		555.6	ND	95	75-125						
Boron	13000	ug/L	E, Q4	555.6	18200	NR	75-125						
Cadmium	551	ug/L		555.6	ND	99	75-125						
Calcium	239	mg/L		5.556	238	22	75-125						
Chromium	563	ug/L		555.6	13.4	99	75-125						
Cobalt	542	ug/L		555.6	4.29	97	75-125						
Lead	531	ug/L		555.6	3.22	95	75-125						
Magnesium	95.8	mg/L	Q4	5.556	92.9	53	75-125						
Mercury	55.1	ug/L		55.56	ND	99	75-125						
Molybdenum	558	ug/L		555.6	1.24	100	75-125						
Potassium	6.63	mg/L		5.556	1.18	98	75-125						
Selenium	557	ug/L		555.6	ND	100	75-125						
Sodium	76.4	mg/L	Q4	5.556	73.3	56	75-125						
Thallium	531	ug/L		555.6	ND	96	75-125						
Matrix Spike Dup (B336880-MSD1)	Sample: GF02896-01				Prepared: 06/23/23 Analyzed: 06/28/23								
Antimony	536	ug/L		555.6	ND	96	75-125	0.2	20				
Arsenic	557	ug/L		555.6	1.06	100	75-125	0.1	20				
Barium	660	ug/L		555.6	114	98	75-125	0.01	20				
Beryllium	540	ug/L		555.6	ND	97	75-125	2	20				
Boron	13300	ug/L	E, Q4	555.6	18200	NR	75-125	2	20				
Cadmium	549	ug/L		555.6	ND	99	75-125	0.3	20				



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B336880-MSD1) Sample: GF02896-01 Prepared: 06/23/23 Analyzed: 06/28/23									
Calcium	239	mg/L		5.556	238	12	75-125	0.2	20
Chromium	565	ug/L		555.6	13.4	99	75-125	0.4	20
Cobalt	542	ug/L		555.6	4.29	97	75-125	0.05	20
Lead	528	ug/L		555.6	3.22	95	75-125	0.5	20
Magnesium	95.8	mg/L	Q4	5.556	92.9	53	75-125	0.02	20
Mercury	54.5	ug/L		55.56	ND	98	75-125	1	20
Molybdenum	552	ug/L		555.6	1.24	99	75-125	1	20
Potassium	6.66	mg/L		5.556	1.18	99	75-125	0.5	20
Selenium	555	ug/L		555.6	ND	100	75-125	0.5	20
Sodium	76.5	mg/L	Q4	5.556	73.3	57	75-125	0.03	20
Thallium	529	ug/L		555.6	ND	95	75-125	0.4	20
<u>Batch B337163 - No Prep - SM 2320B 1997</u>									
Duplicate (B337163-DUP1)		Sample: GF02896-01			Prepared & Analyzed: 06/27/23				
Alkalinity - carbonate as CaCO3		< 2.0 mg/L			ND				
Alkalinity - bicarbonate as CaCO3		488 mg/L			488				
Duplicate (B337163-DUP2)		Sample: GF02896-07			Prepared & Analyzed: 06/27/23				
Alkalinity - carbonate as CaCO3		< 2.0 mg/L			ND				
Alkalinity - bicarbonate as CaCO3		612 mg/L			612				



NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

- E Estimated - concentration exceeds the instrument calibration range.
- Q1 Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q2 Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q3 Matrix Spike/Matrix Spike Duplicate both failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

A handwritten signature in black ink that reads "Gail Schindler".

Certified by: Gail Schindler, Project Manager



Gf02087c / 2088
fmw 6-13-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Section B

Section C

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section C

110

6702086
YMW G-13-23

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND**

EDW-257-301

Required Client Information:															
Company: Vistra Corp Address: 13498 E. 900th St	Report To: Brian Voelker Copy To: Jason Stuckey	Attention: Jason Stuckey	Invoice Information:												
Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-8911 Requested Due Date/TAT: 10 day	Purchase Order No.: Project Name: Project Number: 2285	Address: see Section A Quote Reference: Project Manager: Profile #:													
REGULATORY AGENCY															
		NPDES UST	GROUND WATER RCRA OTHER												
		Site Location STATE: IL	DRINKING WATER												
Residual Chlorine (Y/N)															
Requested Analysis Filtered (Y/N)															
SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE ITEM #	MATRIX CODE <small>(see valid codes to left)</small> Valid Matrix Codes MATRIX CODE DRINKING WATER WATER WASTE WATER PRODUCT SOLID OIL WIPES AIR OTHER TISSUE	SAMPLE TYPE (G=GRAIN C=COMP) <small>(see valid codes to left)</small> SAMPLE TYPE G W P S O L W A R O T	# OF CONTAINERS <small>(see valid codes to left)</small> SAMPLE TEMP AT COLLECTION COLLECTED DATE TIME	Preservatives											
				Analyses Test											
				Y/N											
				EDW-257-301											
				EDW-845-301											
				EDW-SUP-000											
				EDW-257-301											
				EDW-845-301											
				EDW-SUP-000											
				EDW-257-301											
				EDW-845-301											
				EDW-SUP-000											
				EDW-257-301											
				EDW-845-301											
				EDW-SUP-000											
				Project No./Lab I.D.											
Temp in °C															
Released on (Y/N)															
Customer Release Copy (Y/N)															
Samples (Y/N)															
PRINT Name of SAMPLER: <i>Brendan Wilson</i> DATE: <i>6/13/13</i> TIME: <i>1645</i> ACCEPTED BY / AFFILIATION: <i>Vane Wagner</i> DATE: <i>6/13/13</i> TIME: <i>2123</i> SAMPLE CONDITIONS															
SAMPLE NAME AND SIGNATURE: <i>Brendan Wilson</i> DATE: <i>6/13/13</i> TIME: <i>1645</i> ACCEPTED BY / AFFILIATION: <i>Vane Wagner</i> DATE: <i>6/13/13</i> TIME: <i>2123</i> SAMPLE CONDITIONS															

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND

EDW-257-301

Page:

of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:																															
Company: Vistra Corp	Report To: Brian Voelker	Copy To: Jason Stuckey	Attention: Jason Stuckey																																
Address: 13498 E. 900th St																																			
Email To: Brian.Voelker@VistraCorp.com																																			
Phone: (217) 753-8911	Fax:	Purchase Order No.:																																	
Requested Due Date/TAT:		Project Name:																																	
10 day		Project Number: 2285																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">REGULATORY AGENCY</th> <th colspan="4" style="text-align: left; padding: 5px;">NPDES GROUND WATER DRINKING WATER</th> </tr> <tr> <th colspan="2" style="text-align: left; padding: 5px;">Address: See Section A</th> <th style="text-align: left; padding: 5px;">UST</th> <th style="text-align: left; padding: 5px;">RCRA</th> <th colspan="2" style="text-align: left; padding: 5px;">OTHER</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">Quide Reference:</td> <td colspan="4"></td> </tr> <tr> <td colspan="2" style="text-align: left; padding: 5px;">Project Manager:</td> <td colspan="4"></td> </tr> <tr> <td colspan="2" style="text-align: left; padding: 5px;">Profile #:</td> <td colspan="4"></td> </tr> </tbody> </table>						REGULATORY AGENCY		NPDES GROUND WATER DRINKING WATER				Address: See Section A		UST	RCRA	OTHER		Quide Reference:						Project Manager:						Profile #:					
REGULATORY AGENCY		NPDES GROUND WATER DRINKING WATER																																	
Address: See Section A		UST	RCRA	OTHER																															
Quide Reference:																																			
Project Manager:																																			
Profile #:																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">Residual Chlorine (Y/N)</th> <th colspan="4" style="text-align: left; padding: 5px;">Site Location STATE: IL</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">Residual Chlorine (Y/N)</td> <td colspan="4"></td> </tr> </tbody> </table>						Residual Chlorine (Y/N)		Site Location STATE: IL				Residual Chlorine (Y/N)																							
Residual Chlorine (Y/N)		Site Location STATE: IL																																	
Residual Chlorine (Y/N)																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">Requested Analysis Filtered (Y/N)</th> <th colspan="4" style="text-align: left; padding: 5px;">Project No./Lab I.D.</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">Requested Analysis Filtered (Y/N)</td> <td colspan="4"></td> </tr> </tbody> </table>						Requested Analysis Filtered (Y/N)		Project No./Lab I.D.				Requested Analysis Filtered (Y/N)																							
Requested Analysis Filtered (Y/N)		Project No./Lab I.D.																																	
Requested Analysis Filtered (Y/N)																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">Preservatives</th> <th colspan="4" style="text-align: left; padding: 5px;"># OF CONTAINERS</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">Preservatives</td> <td colspan="4"></td> </tr> </tbody> </table>						Preservatives		# OF CONTAINERS				Preservatives																							
Preservatives		# OF CONTAINERS																																	
Preservatives																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">SAMPLE TEMP AT COLLECTION</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">SAMPLE TEMP AT COLLECTION</td> <td colspan="4"></td> </tr> </tbody> </table>						SAMPLE TEMP AT COLLECTION		TIME				SAMPLE TEMP AT COLLECTION																							
SAMPLE TEMP AT COLLECTION		TIME																																	
SAMPLE TEMP AT COLLECTION																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;"># OF CONTAINERS</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;"># OF CONTAINERS</td> <td colspan="4"></td> </tr> </tbody> </table>						# OF CONTAINERS		DATE				# OF CONTAINERS																							
# OF CONTAINERS		DATE																																	
# OF CONTAINERS																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">MATERIAL CODE</th> <th colspan="4" style="text-align: left; padding: 5px;">SAMPLE TYPE (G=GRAIN/C=COMPOUND)</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">MATERIAL CODE</td> <td colspan="4"></td> </tr> </tbody> </table>						MATERIAL CODE		SAMPLE TYPE (G=GRAIN/C=COMPOUND)				MATERIAL CODE																							
MATERIAL CODE		SAMPLE TYPE (G=GRAIN/C=COMPOUND)																																	
MATERIAL CODE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">MATRIX CODE (see valid codes in Appendix A)</th> <th colspan="4" style="text-align: left; padding: 5px;">SAMPLE TYPE (G=GRAIN/C=COMPOUND)</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">MATRIX CODE (see valid codes in Appendix A)</td> <td colspan="4"></td> </tr> </tbody> </table>						MATRIX CODE (see valid codes in Appendix A)		SAMPLE TYPE (G=GRAIN/C=COMPOUND)				MATRIX CODE (see valid codes in Appendix A)																							
MATRIX CODE (see valid codes in Appendix A)		SAMPLE TYPE (G=GRAIN/C=COMPOUND)																																	
MATRIX CODE (see valid codes in Appendix A)																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">SAMPLE ID (A-Z, 0-9, -,.)</th> <th colspan="4" style="text-align: left; padding: 5px;"># OF CONTAINERS</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">SAMPLE ID (A-Z, 0-9, -,.)</td> <td colspan="4"></td> </tr> </tbody> </table>						SAMPLE ID (A-Z, 0-9, -,.)		# OF CONTAINERS				SAMPLE ID (A-Z, 0-9, -,.)																							
SAMPLE ID (A-Z, 0-9, -,.)		# OF CONTAINERS																																	
SAMPLE ID (A-Z, 0-9, -,.)																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;"># OF CONTAINERS</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;"># OF CONTAINERS</td> <td colspan="4"></td> </tr> </tbody> </table>						# OF CONTAINERS		TIME				# OF CONTAINERS																							
# OF CONTAINERS		TIME																																	
# OF CONTAINERS																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">TIME</td> <td colspan="4"></td> </tr> </tbody> </table>						TIME		DATE				TIME																							
TIME		DATE																																	
TIME																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">DATE</th> <th colspan="4" style="text-align: left; padding: 5px;">TIME</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding: 5px;">DATE</td> <td colspan="4"></td> </tr> </tbody> </table>						DATE		TIME				DATE																							
DATE		TIME																																	
DATE																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left; padding: 5px;">TIME</th> <th colspan="4" style="text-align: left; padding: 5px;">DATE</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: left; padding:</tr></tbody></table>						TIME		DATE																											
TIME		DATE																																	

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT EDWARDS POWER PLANT, ASH POND

EDW-257-301

GFO2645
Vmw 6-14-23

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Address: 13498 E. 900th St	Report To: Brian Voelker	Copy To: Jason Stuckey	Attention: Jason Stuckey	Company Name: Vistra Corp
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Purchase Order No.:		Address: see Section A	Address: see Section A
Phone: (217) 753-8911	Requested Due Date/TAT:	Project Name: Project Number: 2285		Quote Reference: Project Manager: Profile #:	Quote Reference: Project Manager: Profile #:
REGULATORY AGENCY					
				NPDES UST	GROUND WATER RCRA
				DRINKING WATER OTHER	
				Site Location: STATE: IL	
Requested Analysis Filtered (Y/N)					
Residual Chlorine (Y/N)					
Analysis Test ↑					
Y/N					
Preservatives					
# OF CONTAINERS					
SAMPLE TEMP AT COLLECTION					
Matrix Code (See Vial Codes to Left)					
Sample Type (G=GRAB C=COMP)					
DATE					
TIME					
COLLECTED					
Project No./ Lab I.D.					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					
EDW-B45-301					
EDW-257-301					
EDW-SUP-000					

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Analytical Information:	
Company: Vistra Corp Address: 13498 E 900th St		Report To: Brian Voelker Copy To: Jason Stuckey		Attention: Jason Stuckey	
				Company Name: Vistra Corp Address: See Section A Office Reference: Project Manager Project Name: Project #: Phone: (217) 753-6811 Fax: Requested Due Date/STAT: 10 day Project Number: 2285	
				Residual Chlorine (Y/N)	
				REGULATORY AGENCY	
				NPDES	GROUND WATER
				UST	DRINKING WATER
				RCRA	OTHER
				Site Location: IL	STATE: IL
				Requested Analysis Filtered (Y/N)	
				Project No./Lab I.D.	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	
				EDW-845-301	
				EDW-257-301	
				EDW-SUP-000	

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

COC#: 0615-001 GFO2896
S/NW 6-15-22

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:																																																																																																									
Company: Vistra Corp	Address: 13496 E. 90th St	Report To: Brian Voeleker	Copy To: Jason Stuckey	Attention: Jason Stuckey	Company Name: Vistra Corp																																																																																																								
Email To: Brian.Voeleker@VistraCorp.com	Purchase Order No.: Phone: (217) 753-8911	Project Name: 10 day	Project Number: 2285	Address: see Section A	NPDES GROUND WATER UST																																																																																																								
				Reference: Project Manager: Profile #:	DRINKING WATER RCRA OTHER																																																																																																								
				Site Location: IL	STATE:																																																																																																								
REGULATORY AGENCY																																																																																																													
Residual Chlorine (Y/N)																																																																																																													
Requested Analysis Filtered (Y/N)																																																																																																													
<table border="1"> <thead> <tr> <th rowspan="2">SAMPLE ID</th> <th rowspan="2">Valid Matrix Codes MATRIX DRINKING WATER: WATER WASTEWATER PRODUCT SOIL/SOLID OIL WIFE A.R. OTHER TISSUE</th> <th rowspan="2">Matrix Code CODE G=GRA C=COMP (see valid codes to right)</th> <th colspan="2">COLLECTED</th> <th rowspan="2">Preservatives</th> </tr> <tr> <th>DATE</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>APN-01</td> <td>G</td> <td>2/14/23</td> <td>15:44</td> <td>X</td> </tr> <tr> <td>2</td> <td>AW-20</td> <td>G</td> <td>2/15/23</td> <td>10:05</td> <td>X</td> </tr> <tr> <td>3</td> <td>AW-23</td> <td>G</td> <td>2/14/23</td> <td>15:23</td> <td>X</td> </tr> <tr> <td>4</td> <td>EMW-05</td> <td>G</td> <td>2/15/23</td> <td>07:11</td> <td>X</td> </tr> <tr> <td>5</td> <td>DUP-1</td> <td>G</td> <td>2/15/23</td> <td>10:10</td> <td>X</td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>11</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>12</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>13</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>14</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>16</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						SAMPLE ID	Valid Matrix Codes MATRIX DRINKING WATER: WATER WASTEWATER PRODUCT SOIL/SOLID OIL WIFE A.R. OTHER TISSUE	Matrix Code CODE G=GRA C=COMP (see valid codes to right)	COLLECTED		Preservatives	DATE	TIME	1	APN-01	G	2/14/23	15:44	X	2	AW-20	G	2/15/23	10:05	X	3	AW-23	G	2/14/23	15:23	X	4	EMW-05	G	2/15/23	07:11	X	5	DUP-1	G	2/15/23	10:10	X	6						7						8						9						10						11						12						13						14						15						16					
SAMPLE ID	Valid Matrix Codes MATRIX DRINKING WATER: WATER WASTEWATER PRODUCT SOIL/SOLID OIL WIFE A.R. OTHER TISSUE	Matrix Code CODE G=GRA C=COMP (see valid codes to right)	COLLECTED		Preservatives																																																																																																								
			DATE	TIME																																																																																																									
1	APN-01	G	2/14/23	15:44	X																																																																																																								
2	AW-20	G	2/15/23	10:05	X																																																																																																								
3	AW-23	G	2/14/23	15:23	X																																																																																																								
4	EMW-05	G	2/15/23	07:11	X																																																																																																								
5	DUP-1	G	2/15/23	10:10	X																																																																																																								
6																																																																																																													
7																																																																																																													
8																																																																																																													
9																																																																																																													
10																																																																																																													
11																																																																																																													
12																																																																																																													
13																																																																																																													
14																																																																																																													
15																																																																																																													
16																																																																																																													
# OF CONTAINERS																																																																																																													
SAMPLE TEMP AT COLLECTION																																																																																																													
# OF CONTAINERS																																																																																																													
Preservatives																																																																																																													
EDW-SUP-000																																																																																																													
Analysis Test ↑																																																																																																													
Other NaOH + ZnCl Na2S2O3 HCl HNO3 H2SO4 Unpreserved																																																																																																													
Project No./Lab I.D.																																																																																																													



ANALYTICAL REPORT

July 27, 2023

Revised Report

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1628609
Samples Received: 06/22/2023
Project Number: GF02088
Description: Vistra-Edwards
Site: 001
Report To: Gail Schindler
2231 W. Altarfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

A handwritten signature in blue ink that reads "Haley Torrence".

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

A blurred background image showing several laboratory glass containers, likely test tubes or small beakers, filled with a blue liquid. A pipette is visible in the upper left, pointing towards one of the containers.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

APPENDIX A
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND TABLE OF CONTENTS
EDW-257-301

Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	5	
Sr: Sample Results	6	
AW-09 L1628609-01	6	
AW-15 L1628609-02	7	
AW-15S L1628609-03	8	
AW-16 L1628609-04	9	
XPW01A L1628609-05	10	
AW-10 DUP L1628609-06	11	
AW-10 L1628609-08	12	
AW-11 L1628609-09	13	
AW-14 L1628609-10	14	
AW-17 L1628609-11	15	
XPW02 L1628609-12	16	
XPW03 L1628609-13	17	
Qc: Quality Control Summary	18	
Radiochemistry by Method 904/9320	18	
Radiochemistry by Method SM7500Ra B M	20	
Gl: Glossary of Terms	22	
Al: Accreditations & Locations	23	
Sc: Sample Chain of Custody	24	

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

AW-09 L1628609-01 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/12/23 14:05	06/22/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:26	RGT	Mt. Juliet, TN

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

AW-15 L1628609-02 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/12/23 14:35	06/22/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

AW-15S L1628609-03 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/12/23 13:29	06/22/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

AW-16 L1628609-04 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/12/23 12:52	06/22/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

XPW01A L1628609-05 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/12/23 15:32	06/22/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

AW-10 DUP L1628609-06 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/13/23 15:20	06/22/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094946	1	07/17/23 12:32	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094946	1	07/17/23 12:32	07/18/23 19:19	RGT	Mt. Juliet, TN

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

APPENDIX A
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

AW-10 L1628609-08 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/13/23 15:20	06/23/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094946	1	07/17/23 12:32	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094946	1	07/17/23 12:32	07/18/23 19:19	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷GI

⁸AI

⁹Sc

AW-11 L1628609-09 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/13/23 12:54	06/23/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094946	1	07/17/23 12:32	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094946	1	07/17/23 12:32	07/18/23 19:19	RGT	Mt. Juliet, TN

AW-14 L1628609-10 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/13/23 11:20	06/23/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094946	1	07/17/23 12:32	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094946	1	07/17/23 12:32	07/18/23 19:19	RGT	Mt. Juliet, TN

AW-17 L1628609-11 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/13/23 15:20	06/23/23 09:00
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094946	1	07/17/23 12:32	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094946	1	07/17/23 12:32	07/18/23 19:19	RRE	Mt. Juliet, TN

XPW02 L1628609-12 Non-Potable Water

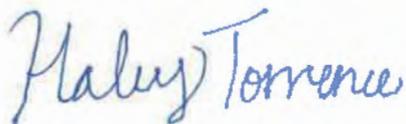
Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/13/23 12:06	06/23/23 09:00
Radiochemistry by Method 904/9320	WG2094102	1	07/13/23 09:59	07/21/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094946	1	07/17/23 12:32	07/21/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094946	1	07/17/23 12:32	07/18/23 19:19	RGT	Mt. Juliet, TN

XPW03 L1628609-13 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Collected by	Collected date/time	Received date/time
					06/13/23 13:38	06/23/23 09:00
Radiochemistry by Method 904/9320	WG2094102	1	07/13/23 09:59	07/21/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094946	1	07/17/23 12:32	07/21/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094946	1	07/17/23 12:32	07/18/23 19:37	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Report Revision History

Level II Report - Version 1: 07/25/23 15:07

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-09

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 01Collected date EDWM-2578 04/23 14:05

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	-0.0128	U	0.235	0.430	07/21/2023 16:40	<u>WG2093699</u>
(<i>l</i>) Barium	90.2			30.0-143	07/21/2023 16:40	<u>WG2093699</u>
(<i>l</i>) Yttrium	122			30.0-136	07/21/2023 16:40	<u>WG2093699</u>

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.230	J	0.309	0.490	07/21/2023 16:40	<u>WG2094942</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.230	J	0.201	0.235	07/17/2023 21:26	<u>WG2094942</u>
(<i>l</i>) Barium-133	94.4			30.0-143	07/17/2023 21:26	<u>WG2094942</u>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Cp
RADIUM-228	2.18		+/- 0.269	0.420	07/21/2023 16:40	W62093699	¹ Tc
(<i>t</i>) Barium	102			30.0-143	07/21/2023 16:40	W62093699	² Ss
(<i>t</i>) Yttrium	97.4			30.0-136	07/21/2023 16:40	W62093699	³ Cn

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Sr
Combined Radium	3.80		+/- 0.563	0.508	07/21/2023 16:40	W62094942	⁵ Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Gl
RADIUM-226	1.61		+/- 0.495	0.286	07/17/2023 21:25	WG2094942	⁷ Al
(<i>t</i>) Barium-133	95.6			30.0-143	07/17/2023 21:25	WG2094942	⁹ Sc

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT, ASH POND SAMPLE RESULTS - 03

Collected date EDW0e257630123 13:29

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+/-	pCi/l	date / time	
RADIUM-228	-0.149	U	0.380	0.687	07/21/2023 16:40	WG2093699
(<i>t</i>) Barium	77.0			30.0-143	07/21/2023 16:40	WG2093699
(<i>t</i>) Yttrium	117			30.0-136	07/21/2023 16:40	WG2093699



Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	pCi/l		+/-	pCi/l	date / time	
	0.203	U	0.420	0.713	07/21/2023 16:40	WG2094942



Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+/-	pCi/l	date / time	
RADIUM-226	0.203		0.180	0.192	07/17/2023 21:25	WG2094942
(<i>t</i>) Barium-133	85.6			30.0-143	07/17/2023 21:25	WG2094942

APPENDIX A

AW-16

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND**SAMPLE RESULTS - 04**Collected date: EDW-2574804/23 12:52

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	2.02	+/-	0.295	0.473	07/21/2023 16:40	<u>WG2093699</u>
(<i>t</i>) Barium	93.3			30.0-143	07/21/2023 16:40	<u>WG2093699</u>
(<i>t</i>) Yttrium	106			30.0-136	07/21/2023 16:40	<u>WG2093699</u>

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	3.74	+/-	0.586	0.538	07/21/2023 16:40	<u>WG2094942</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	1.72	+/-	0.506	0.256	07/17/2023 21:25	<u>WG2094942</u>
(<i>t</i>) Barium-133	95.6			30.0-143	07/17/2023 21:25	<u>WG2094942</u>

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

XPW01A EDWARDS POWER PLANT, ASH POND SAMPLE RESULTS - 05

Collected date: 07/21/2023 15:32

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-228	0.375	U	0.338	0.619	07/21/2023 16:40	WG2093699	¹ Cp
(I) Barium	79.4			30.0-143	07/21/2023 16:40	WG2093699	² Tc
(I) Yttrium	106			30.0-136	07/21/2023 16:40	WG2093699	³ Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Combined Radium	0.0760	U	0.354	0.638	07/21/2023 16:40	WG2094942	⁴ Cn ⁵ Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-226	0.0760	J	0.106	0.154	07/17/2023 21:25	WG2094942	⁶ Qc ⁷ Gl
(I) Barium-133	98.3			30.0-143	07/17/2023 21:25	WG2094942	⁸ Al ⁹ Sc

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-10 EDDP

EDWARDS POWER PLANT, ASH POND SAMPLE RESULTS - 06

Collected date 07/18/2023 15:20

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	1.59	+/-	0.311	0.515	07/21/2023 16:40	WG2093699
(<i>7</i>) Barium	87.2			30.0-143	07/21/2023 16:40	WG2093699
(<i>7</i>) Yttrium	101			30.0-136	07/21/2023 16:40	WG2093699

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	2.79	+/-	0.608	0.672	07/21/2023 16:40	WG2094946

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	1.19	+/-	0.522	0.431	07/18/2023 19:19	WG2094946
(<i>7</i>) Barium-133	78.5			30.0-143	07/18/2023 19:19	WG2094946

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND

AW-10

Collected date EDW#257680123 15:20

SAMPLE RESULTS - 08

L1628609

Radiochemistry by Method 904/9320

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Uncertainty</u>	<u>MDA</u>	<u>Analysis Date</u>	<u>Batch</u>
RADIUM-228	1.36		0.343	0.581	07/21/2023 16:40	WG2093699
(<i>†</i>) Barium	84.5			30.0-143	07/21/2023 16:40	WG2093699
(<i>†</i>) Yttrium	98.1			30.0-136	07/21/2023 16:40	WG2093699

¹C₆
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

Radiochemistry by Method Calculation

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Uncertainty</u>	<u>MDA</u>	<u>Analysis Date</u>	<u>Batch</u>
Combined Radium	2.95		0.615	0.667	07/21/2023 16:40	WG2094946

Radiochemistry by Method SM7500Ra B M

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Uncertainty</u>	<u>MDA</u>	<u>Analysis Date</u>	<u>Batch</u>
RADIUM-226	1.59		0.510	0.328	07/18/2023 19:19	WG2094946
(<i>†</i>) Barium-133	99.2			30.0-143	07/18/2023 19:19	WG2094946

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND

AW-11

Collected date 2023-07-27 12:54

SAMPLE RESULTS - 09

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.430	J	0.394	0.696	07/21/2023 16:40	WG2093699
(I) Barium	77.3			30.0-143	07/21/2023 16:40	WG2093699
(I) Yttrium	100			30.0-136	07/21/2023 16:40	WG2093699

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	2.29		0.672	0.744	07/21/2023 16:40	WG2094946

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	1.86		0.544	0.262	07/18/2023 19:19	WG2094946
(I) Barium-133	96.0			30.0-143	07/18/2023 19:19	WG2094946

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

AW-14

EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 10

Collected date DW42574307/23 11:20

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-228	2.55	pCi/l	+/-	0.356	0.576	07/21/2023 16:40	WG2093699
(<i>T</i>) Barium	91.7				30.0-143	07/21/2023 16:40	WG2093699
(<i>T</i>) Yttrium	104				30.0-136	07/21/2023 16:40	WG2093699

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Combined Radium	3.46	pCi/l	+/-	0.544	0.667	07/21/2023 16:40	WG2094946

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-226	0.918	pCi/l	+/-	0.411	0.336	07/18/2023 19:19	WG2094946
(<i>T</i>) Barium-133	96.1				30.0-143	07/18/2023 19:19	WG2094946

APPENDIX A

AW-17

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS - 11

Collected date: EDW257-801/23 15:20

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	1.59		+/-	0.573	07/21/2023 16:40	WG2093699
(I) Barium	87.6			30.0-143	07/21/2023 16:40	WG2093699
(I) Yttrium	103			30.0-136	07/21/2023 16:40	WG2093699

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	2.97		+/-	0.671	07/21/2023 16:40	WG2094946

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
RADIUM-226	139		+/-	0.514	0.349	07/18/2023 19:19	WG2094946
(I) Barium-133	83.7				30.0-143	07/18/2023 19:19	WG2094946

APPENDIX A.

XPW02 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND SAMPLE RESULTS - 12

Collected date EDWE257480123 12:06

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	0.172	U	0.284	0.524	07/21/2023 20:53	WG2094102
(<i>l</i>) Barium	102			30.0-143	07/21/2023 20:53	WG2094102
(<i>l</i>) Yttrium	111			30.0-136	07/21/2023 20:53	WG2094102

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.481	J	0.462	0.725	07/21/2023 20:53	WG2094946

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.309	J	0.364	0.501	07/18/2023 19:19	WG2094946
(<i>l</i>) Barium-133	62.1			30.0-143	07/18/2023 19:19	WG2094946

APPENDIX A.

XPW03

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND

Collected date EDW#25780123 13:38

SAMPLE RESULTS - 13

L1628609

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-228	0.760		0.312	0.553	07/21/2023 20:53	WG2094102
(I) Barium	92.1			30.0-143	07/21/2023 20:53	WG2094102
(I) Yttrium	99.0			30.0-136	07/21/2023 20:53	WG2094102

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.897		0.399	0.675	07/21/2023 20:53	WG2094946

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
RADIUM-226	0.137	U	0.249	0.387	07/18/2023 19:37	WG2094946
(I) Barium-133	81.3			30.0-143	07/18/2023 19:37	WG2094946

WG2093699

Radiochemistry by Method 904/9320

QUALITY CONTROL SUMMARY

L1628609-01,02,03,04,05,06,08,09,10,11

Method Blank (MB)

	(MB) R3952414-1 07/21/23 16:40	MB Result pCi/l	MB Qualifier +/-	MB Uncertainty pCi/l	MB MDA pCi/l
Analyte	Radium-228	0.282	-	0.186	0.328
(<i>f</i>) Barium	97.5	-	97.5	-	-
(<i>f</i>) Yttrium	95.0	-	95.0	-	-

L1628609-05 Original Sample (OS) • Duplicate (DUP)

	(OS) L1628609-05 07/21/23 16:40 • (DUP) R3952414-5 07/21/23 16:40	Original Result pCi/l	Original Uncertainty +/-	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty +/-	DUP MDA pCi/l	Dilution	DUP RRD %	DUP RER %	DUP RPD %	DUP RER Limit
Analyte	Radium-228	-0.375	0.338	0.619	0.502	0.392	0.619	1	209	1.70	1.2	20
(<i>f</i>) Barium	79.4	-	-	-	85.7	85.7	-	-	-	-	-	3
(<i>f</i>) Yttrium	106	-	-	-	111	111	-	-	-	-	-	-

Laboratory Control Sample (LCS)

	(LCS) R3952414-2 07/21/23 16:40	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Analyte	Radium-228	5.00	5.63	113	80.0-120	-
(<i>f</i>) Barium	-	-	-	-	-	-
(<i>f</i>) Yttrium	-	-	88.4	110	-	-

L1628608-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

	(OS) L1628608-09 07/21/23 16:40 • (MS) R3952414-3 07/21/23 16:40 • (MSD) R3952414-4 07/21/23 16:40	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	MSD RER	RPD Limits %
Analyte	Radium-228	10.0	-0.185	9.88	10.1	98.8	101	1	70.0-130	100	2.22	2.22	2.22	20
(<i>f</i>) Barium	-	-	92.6	-	-	-	-	-	-	-	-	-	-	-
(<i>f</i>) Yttrium	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GFO2088

SDG:
L1628609

DATE/TIME:
07/27/23 16:00

PAGE:
18 of 29

WG2094102

Radiochemistry by Method 904/9320

QUALITY CONTROL SUMMARY

L1628609-12,13

Method Blank (MB)

(MB) R3952036-1 07/21/23 20:53				
Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
Radium-228	0.480	+/-	0.197	0.349
(<i>i</i>) Barium	98.6		98.5	
(<i>i</i>) Yttrium	87.8		87.8	

L1628609-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1628609-13 07/21/23 20:53 • (DUP) R3952036-5 07/21/23 20:53												
Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit %
Radium-228	0.760	+/-	0.312	0.553	0.433	0.380	0.553	1	54.7	0.664	20	3
(<i>i</i>) Barium	92.1				86.0	86.0						
(<i>i</i>) Yttrium	99.0				104	104						

Laboratory Control Sample (LCS)

(LCS) R3952036-2 07/21/23 20:53					
Analyte	LCS Amount	LCS Result	LCS Rec.	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.48	110	80.0-120	-
(<i>i</i>) Barium			94.8		
(<i>i</i>) Yttrium			94.9		

L1628609-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1628609-12 07/21/23 20:53 • (MS) R3952036-3 07/21/23 20:53 • (MSD) R3952036-4 07/21/23 20:53													
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER %	MSD RER %
Radium-228	16.7	0.172	17.1	16.3	101	96.5	1	70.0-130	4.80	4.80	20		
(<i>i</i>) Barium		102		97.2		96.8							
(<i>i</i>) Yttrium		111		112		118							

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GF02088

PAGE:
19 of 29

DATE/TIME:
07/27/23 16:00

WG2094942

Radiochemistry by Method SM75DORa B M

QUALITY CONTROL SUMMARY

L1628609-01,02,03,04,05

Method Blank (MB)

Analyte	(MB) R3950486-1	07/17/23 21:25	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+/-	pCi/l	
Radium-226	-0.0120	U	0.0199	0.0625	
(f) Barium-133	93.8		93.8		

L1628608-04 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit %
	pCi/l	+/-	pCi/l	pCi/l	+/-	pCi/l	%	%				
Radium-226	-0.0667	0.207	0.394	0.121	0.176	0.394	1	260	0.667	J	20	3
(f) Barium-133	89.1		94.2	94.2	94.2	94.2						

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits %	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.01	4.64	92.5	80.0-120	
(f) Barium-133			94.4		

L1628609-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	MSD Result	MSD Rec.	Dilution	Rec. Limits %	MS Qualifier	MS RPD	MS RER	MSD Qualifier	MSD RPD %	MSD RER %	RPD Limits %
	pCi/l	pCi/l	pCi/l	%	pCi/l	%	%	%							
Radium-226	20.0	0.293	18.8	17.7	92.8	87.2	1	75.0-125		6.15					20
(f) Barium-133		85.6			83.0	87.6									

WG2094946

Radiochemistry by Method SM7500Ra B M

QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	(MB) R3950913-1 07/18/23 19:19	MB Result pCi/l	MB Qualifier +/-	MB Uncertainty pCi/l	MB MDA
Radium-226	0.00239	0.00456	+/-	0.0934	
(f) Barium-233	80.0	80.0			

L1628922-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1628922-12 07/18/23 19:37 • (DUP) R3950913-5 07/18/23 19:19										
		Original Result	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier
Analyte	Original Uncertainty	pCi/l	+/-	pCi/l	pCi/l	pCi/l	%	%		%
Radium-226	6.99	1.01	+/-	0.217	8.15	1.11	0.217	1	15.3	0.74
(f) Barium-233	105					112				
(f) Barium-233									20	3

Laboratory Control Sample (LCS)

(LCS) R3950913-2 07/18/23 19:19				
Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	pCi/l	pCi/l	%	%
Radium-226	5.01	5.25	105	80.0-120
(f) Barium-233			92.3	

L1628609-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1628609-12 07/18/23 19:19 • (MS) R3950913-3 07/18/23 19:19 • (MSD) R3950913-4 07/18/23 19:19											
		Spike Amount	Original Result	MS Result	MS Rec.	MS Rec.	Dilution	Rec. Limits	MS Qualifier	MS Qualifier	RPD
Analyte	pCi/l	pCi/l	pCi/l	pCi/l	%	%	%	%			%
Radium-226	20.0	0.309	18.3	15.4	90.1	75.2	1	75.0-125	17.6		20
(f) Barium-233		62.1		60.6	69.0						

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GF02988

PAGE:
21 of 29

DATE/TIME:
07/27/23 16:00

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	¹ Cp
Rec.	Recovery.	² Tc
RER	Replicate Error Ratio.	³ Ss
RPD	Relative Percent Difference.	⁴ Cn
SDG	Sample Delivery Group.	⁵ Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	⁶ Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁷ Gl
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	⁸ Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	⁹ Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EDWARDS POWER PLANT, ASH POND

EDW-257-301

ACCREDITATIONS & LOCATIONS

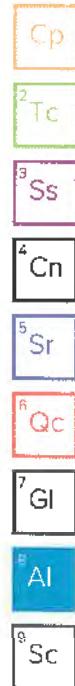
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN00032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAC00356
Kentucky ¹	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN00032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA - ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA - ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Internal Transfer Chain of Custody

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

State of Origin: ILCert. Needed: YES NO

Owner Received

Results Req'd

By:

7/14/2023

Requested Analysis

Workorder: GF02088

Report To:

Gail Schindler

Pace Analytical - IL/MO

2231 W. Altorfer Drive

Peoria, IL 61615

800-752-6651

Workorder Name: Vista - Edwards

Subcontract To:

Pace Analytical - Mt Juliet

12065 Lebanon Rd

Mt Juliet TN 37122

Date: 6/13/2023

By:

7/14/2023

Requested Analysis

Hydrogenation Catalyst

Radiium 226/228

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Comments
1.	AW-49	GRAB	6/12/2023 14:05	GF02088-01	GW	
2.	AW-15	GRAB	6/12/2023 15:04:43	GF02088-02	GW	
3.	AW-15S	GRAB	6/12/2023 13:29	GF02088-03	GW	
4.	AW-16	GRAB	6/12/2023 15:52	GF02088-04	GW	
5.	XPW01A	GRAB	6/12/2023 15:32	GF02088-05	GW	
6.	AW-10	GRAB	6/13/2023 15:20	GF02088-06	GW	
7.	AW-10 DUP	GRAB	6/13/2023 15:20	GF02088-07	GW	
8.	AW-11	GRAB	6/13/2023 12:54	GF02088-08	GW	
9.	AW-14	GRAB	6/13/2023 11:20	GF02088-09	GW	
10.	AW-17	GRAB	6/13/2023 15:20	GF02088-10	GW	
11.	XPW02	GRAB	6/13/2023 12:06	GF02088-11	GW	
12.	XPW03	GRAB	6/13/2023 13:38	GF02088-12	GW	
			Date/Time	Received By	Date/Time	Comments
1			6/13/2023 14:00			Needs reported as 226, 228 and also combined 226/228
2						Include QC summary and edd
3						

Cooler Temperature on Receipt

*C

Custody Seal Y or N

Received on ice Y or N

Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
 This chain of custody must be maintained completely as is since this information is available in the owner laboratory.

Sample Present/Intact:	<input checked="" type="checkbox"/>	IF Applicable
COC Signed/Accurate:	<input checked="" type="checkbox"/>	VOA Zero Headspace:
Bottles arrive intact:	<input checked="" type="checkbox"/>	Pres. Correct/Check:
Correct bottles used:	<input checked="" type="checkbox"/>	
Sufficient volume sent:	<input checked="" type="checkbox"/>	
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/>	

FMT-ALL-C-002rev.00 24 March 2009

Page 1 of 1

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301



Ship to :

Pace Analytical Services, LLC
1638 Roseytown Rd - Suites 2,3,4
Greensburg, PA 15601

(724)850-5600

INTER LABORATORY WORK ORDER # GF02088

[To be complete by sending lab]

Sending Project No:	GF02088
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	6/20/2023
REQUESTED COMPLETION DATE:	7/11/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	Vistra - Edwards
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		12		12	\$242.10	\$2,905.20
		1		1	\$0.00	\$0.00
		1		1		\$0.00
					TOTAL	\$2,905.20

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$2,905.20	\$2,324.16	\$581.04
* Custom Revenue Allocation		TOTAL	\$2,324.16	\$581.04

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: Yes No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the A8M at the receiving laboratory. Copies are made to corporate as needed.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

U1625A09

Tracking Numbers	NS At Temperature
6319 (001 005)	20.6 ± 0.2

Internal Transfer Chain of Custody

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

C217

Pace Analytical

State of Origin: Yes No
 CCR Needed: Yes No

Workorder: GR02088
 Report #: 0
 Workorder Name: Vistra - Edwards
 Subcont accts To:
 Grill Schindler
 Pace Analytical - IL/MO
 12237 W. Altonier Drive
 Peoria, IL 61615
 800-752-6651

7/11/2023

Results Requested

Owner Received Date: 7/11/2023 By:

Received Analysis

Radiium-226/228

Received From:

Date:

Time:

By:

Comments:

Needs reported as 226, 228 and also combined 226/228

Needs QC summary and add:

Date/Time Received By

Comments:

Needs reported as Y or N

Sample intact Y or N

PMT-AAC-C-002 Rev. 00 24 March 2009

Page 1 of 1

Item	Sample ID	Sample Type	Collect Date/Time	Matrix		Received From:	Date/Time Received By:	Comments:
				GRAB	GW			
1.	AW-09	GRAB	6/12/2023 14:05	19:37	GR02088-07	X		-01
2.	AW-25	GRAB	6/12/2023 14:35	14:35	GR02088-02	X		-02
3.	AW-55	GRAB	6/12/2023 13:29	12:29	GR02088-03	X		-03
4.	AW-16	GRAB	6/12/2023 15:52	16:04	GR02088-04	X		-04
5.	XPW01A	GRAB	6/12/2023 15:32	15:32	GR02088-05	X		-05
6.	AW-10	GRAB	6/13/2023 15:20	15:20	GR02088-06	X		-06
7.	AW-10 dup	GRAB	6/13/2023 15:20	15:20	GR02088-07	X		-07
8.	AW-11	GRAB	6/13/2023 12:54	12:54	GR02088-08	X		-08
9.	AW-14	GRAB	6/13/2023 11:20	11:20	GR02088-09	X		-09
10.	AW-17	GRAB	6/13/2023 15:20	15:20	GR02088-10	X		-10
11.	XPW02	GRAB	6/13/2023 12:05	12:05	GR02088-11	X		-11
12.	XPW03	GRAB	6/13/2023 13:38	13:38	GR02088-12	X		-12
								-13
Transfer Received By:								
1								
2								
3								

Cooler Temperature on Receipt:

1

2

3

C

Custody Seal Y or N

Sample intact Y or N

PMT-AAC-C-002 Rev. 00 24 March 2009

Page 1 of 1

**In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody information is available in the owner laboratory.

COC Seal Present/Intact: Y If Applicable
 COC Signed/Accurate: Y VOA Zeta Headspace: N
 Bottles arrive intact: N Pres.Correct/Check: N
 Correct bottles used: N Surface/Atm volume set: N
 PAD Screen cd. 5 mR/hr: N

Sample Receipt Checklist:

COC Seal Present/Intact: Y If Applicable
 COC Signed/Accurate: Y VOA Zeta Headspace: N
 Bottles arrive intact: N Pres.Correct/Check: N
 Correct bottles used: N Surface/Atm volume set: N
 PAD Screen cd. 5 mR/hr: N

PMT-AAC-C-002 Rev. 00 24 March 2009

Page 1 of 1

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301



Ship to:
 Pace Analytical Services LLC
 1638 Roseytown Rd - Butler 23
 Greensburg, PA 15601
 (724)850-5600

U628109
 INTER-LABORATORY WORK ORDER # GFD2088

(To be completed by sending lab)

Sending Project No:	GFD2088
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	6/20/2023
REQUESTED COMPLETION DATE:	7/11/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	Vistra - Edwards
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

Requested Reportable Units

Report Wet or Dry Weight?

Cart Needed: IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		12		12	\$242.10	\$2,905.20
		1		1	\$0.00	\$0.00
		1		1	\$0.00	\$0.00
						TOTAL \$2,905.20

Special Requirements:

Report as 226,228 & combined 226/228. Include QC summary

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. (20%)
radiological	38	\$2,905.20	\$2,324.16	\$581.04
Custom Revenue Allocation		TOTAL \$2,905.20		\$581.04

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: Yes No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab. Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

U62809

Tracking Numbers	M5 AL Temperature
0319 6001 0051	20.6 ± 0.2016
0319 6001 0084	24.5 ± 0.245



ANALYTICAL REPORT

July 25, 2023

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1628608
Samples Received: 06/22/2023
Project Number: GF02677
Description: Vistra-Edwatsd
Site: 001
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

138

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Cp: Cover Page

Tc: Table of Contents

1

1 Cp

Ss: Sample Summary

2

2 Tc

Cn: Case Narrative

5

3 Ss

Sr: Sample Results

6

4 Cn

AP05S L1628608-01

6

5 Sr

AW-01 L1628608-02

7

6 Qc

AW-06 L1628608-03

8

7 Gl

AW-08 L1628608-04

9

8 Al

AW-18 L1628608-05

10

9 Sc

AW-19 L1628608-06

11

AW-19 DUP L1628608-07

12

AW-21 L1628608-08

13

EB-01 L1628608-09

14

Qc: Quality Control Summary

15

Radiochemistry by Method 904/9320

15

Radiochemistry by Method SM7500Ra B M

17

Gl: Glossary of Terms

18

Al: Accreditations & Locations

19

Sc: Sample Chain of Custody

20

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

AP05S L1628608-01 Non-Potable Water

Collected by Collected date/time Received date/time
06/14/23 10:34 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093281	1	07/12/23 10:06	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

1 Cp

AW-01 L1628608-02 Non-Potable Water

Collected by Collected date/time Received date/time
06/14/23 12:35 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093281	1	07/12/23 10:06	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

2 Tc

AW-06 L1628608-03 Non-Potable Water

Collected by Collected date/time Received date/time
06/14/23 10:33 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093281	1	07/12/23 10:06	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

3 Ss

AW-08 L1628608-04 Non-Potable Water

Collected by Collected date/time Received date/time
06/14/23 14:24 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093281	1	07/12/23 10:06	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

4 Cn

AW-18 L1628608-05 Non-Potable Water

Collected by Collected date/time Received date/time
06/14/23 12:08 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093281	1	07/12/23 10:06	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

5 Sr

AW-19 L1628608-06 Non-Potable Water

Collected by Collected date/time Received date/time
06/14/23 13:40 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:25	RGT	Mt. Juliet, TN

6 Qc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

AW-19 DUP L1628608-07 Non-Potable Water

Collected by Collected date/time Received date/time
06/14/23 13:40 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:26	RGT	Mt. Juliet, TN

¹Cp

AW-21 L1628608-08 Non-Potable Water

Collected by Collected date/time Received date/time
06/14/23 15:40 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:26	RGT	Mt. Juliet, TN

²Tc

EB-01 L1628608-09 Non-Potable Water

Collected by Collected date/time Received date/time
06/14/23 16:03 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093699	1	07/12/23 18:01	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094942	1	07/14/23 13:00	07/21/23 16:40	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094942	1	07/14/23 13:00	07/17/23 21:26	RGT	Mt. Juliet, TN

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]


Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ Sc

EDW-257-301
Radiochemistry by Method 904/9320

1 Cp

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-228	2.30		0.596	1.01	07/20/2023 16:47	WG2093281
(<i>T</i>) Barium	70.8			30.0-143	07/20/2023 16:47	WG2093281
(<i>T</i>) Yttrium	96.1			30.0-136	07/20/2023 16:47	WG2093281

2 Tc

Radiochemistry by Method Calculation

3 Ss

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
Combined Radium	4.53		0.840	1.07	07/20/2023 16:47	WG2094942

4 Cn

Radiochemistry by Method SM7500Ra B M

5 Sr

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-226	2.23		0.592	0.355	07/17/2023 21:25	WG2094942
(<i>T</i>) Barium-133	90.3			30.0-143	07/17/2023 21:25	WG2094942

6 Qc

7 GI

8 Al

9 Sc

AW-01

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Collected date/time: 06/14/23 12:35
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE RESULTS 02

L1628608

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-228	-0.461	<u>U</u>	0.369	0.695	07/20/2023 16:47	WG2093281
(<i>T</i>) Barium	82.0			30.0-143	07/20/2023 16:47	WG2093281
(<i>T</i>) Yttrium	109			30.0-136	07/20/2023 16:47	WG2093281

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
Combined Radium	0.773		0.492	0.725	07/20/2023 16:47	WG2094942

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-226	0.773		0.325	0.207	07/17/2023 21:25	WG2094942
(<i>T</i>) Barium-133	99.1			30.0-143	07/17/2023 21:25	WG2094942

AW-06

APPENDIX A.

SAMPLE RESULTS 03
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 06/14/23 16:33

L1628608

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.413	J	0.251	0.447	07/20/2023 16:47	WG2093281
(<i>T</i>) Barium	83.3			30.0-143	07/20/2023 16:47	WG2093281
(<i>T</i>) Yttrium	107			30.0-136	07/20/2023 16:47	WG2093281

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.910		0.400	0.540	07/20/2023 16:47	WG2094942

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.498		0.311	0.303	07/17/2023 21:25	WG2094942
(<i>T</i>) Barium-133	91.7			30.0-143	07/17/2023 21:25	WG2094942

AW-08

APPENDIX A.

Collected date/time: 06/14/23 14:34

SAMPLE RESULTS 04

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

L1628608

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.815		0.333	0.583	07/20/2023 16:47	WG2093281
(<i>T</i>) Barium	79.7			30.0-143	07/20/2023 16:47	WG2093281
(<i>T</i>) Yttrium	102			30.0-136	07/20/2023 16:47	WG2093281

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.815		0.392	0.704	07/20/2023 16:47	WG2094942

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0607	<u>U</u>	0.207	0.394	07/17/2023 21:25	WG2094942
(<i>T</i>) Barium-133	89.1			30.0-143	07/17/2023 21:25	WG2094942

SAMPLE RESULTS 05
Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-228	1.86		0.296	0.479	07/20/2023 16:47	WG2093281
(<i>T</i>) Barium	83.1			30.0-143	07/20/2023 16:47	WG2093281
(<i>T</i>) Yttrium	96.5			30.0-136	07/20/2023 16:47	WG2093281

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
Combined Radium	2.92		0.508	0.568	07/20/2023 16:47	WG2094942

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-226	1.05		0.413	0.305	07/17/2023 21:25	WG2094942
(<i>T</i>) Barium-133	91.3			30.0-143	07/17/2023 21:25	WG2094942

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-228	0.294	<u>J</u>	0.213	0.379	07/21/2023 16:40	<u>WG2093699</u>
(<i>T</i>) Barium	96.3			30.0-143	07/21/2023 16:40	<u>WG2093699</u>
(<i>T</i>) Yttrium	106			30.0-136	07/21/2023 16:40	<u>WG2093699</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
Combined Radium	0.471	<u>J</u>	0.325	0.520	07/21/2023 16:40	<u>WG2094942</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-226	0.178	<u>J</u>	0.245	0.356	07/17/2023 21:25	<u>WG2094942</u>
(<i>T</i>) Barium-133	83.9			30.0-143	07/17/2023 21:25	<u>WG2094942</u>

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.458		0.221	0.387	07/21/2023 16:40	WG2093699
(<i>T</i>) Barium	93.3			30.0-143	07/21/2023 16:40	WG2093699
(<i>T</i>) Yttrium	108			30.0-136	07/21/2023 16:40	WG2093699

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.04		0.400	0.494	07/21/2023 16:40	WG2094942

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.585		0.334	0.307	07/17/2023 21:26	WG2094942
(<i>T</i>) Barium-133	96.5			30.0-143	07/17/2023 21:26	WG2094942

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.103	<u>U</u>	0.259	0.470	07/21/2023 16:40	<u>WG2093699</u>
(<i>T</i>) Barium	83.1			30.0-143	07/21/2023 16:40	<u>WG2093699</u>
(<i>T</i>) Yttrium	93.8			30.0-136	07/21/2023 16:40	<u>WG2093699</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.326	<u>J</u>	0.355	0.573	07/21/2023 16:40	<u>WG2094942</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.224	<u>J</u>	0.243	0.327	07/17/2023 21:26	<u>WG2094942</u>
(<i>T</i>) Barium-133	101			30.0-143	07/17/2023 21:26	<u>WG2094942</u>

EB-01

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
L1628608

Collected date/time: 06/14/23 16:43

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-228	-0.185	<u>U</u>	0.208	0.389	07/21/2023 16:40	<u>WG2093699</u>
(<i>T</i>) Barium	92.6			30.0-143	07/21/2023 16:40	<u>WG2093699</u>
(<i>T</i>) Yttrium	111			30.0-136	07/21/2023 16:40	<u>WG2093699</u>

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
Combined Radium	0.0292	<u>U</u>	0.264	0.494	07/21/2023 16:40	<u>WG2094942</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-226	0.0292	<u>U</u>	0.163	0.305	07/17/2023 21:26	<u>WG2094942</u>
(<i>T</i>) Barium-133	97.1			30.0-143	07/17/2023 21:26	<u>WG2094942</u>

Method Blank (MB)

(MB) R3952228-1 07/20/23 16:47

¹Cp

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.237	J	0.171	0.309
(T) Barium	86.7		86.7	
(T) Yttrium	106		106	

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1628597-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1628597-03 07/20/23 16:47 • (DUP) R3952228-5 07/20/23 16:47

⁹Sc

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-228	0.234	0.470	0.850	-0.986	0.427	0.850	1	200	1.92	U	20	3
(T) Barium	74.6			88.3	88.3							
(T) Yttrium	102			96.1	96.1							

Laboratory Control Sample (LCS)

(LCS) R3952228-2 07/20/23 16:47

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	5.29	106	80.0-120	
(T) Barium			87.9		
(T) Yttrium			106		

L1628608-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1628608-02 07/20/23 16:47 • (MS) R3952228-3 07/20/23 16:47 • (MSD) R3952228-4 07/20/23 16:47

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.461	18.0	18.9	107	113	1	70.0-130		5.00		20
(T) Barium		82.0		82.6	79.5							
(T) Yttrium		109		106	93.4							

Method Blank (MB)

(MB) R3952414-1 07/21/23 16:40

¹Cp

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.282	J	0.186	0.328
(T) Barium	97.5		97.5	
(T) Yttrium	95.0		95.0	

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1628609-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1628609-05 07/21/23 16:40 • (DUP) R3952414-5 07/21/23 16:40

⁹Sc

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.375	0.338	0.619	0.502	0.392	0.619	1	200	1.70	J	20	3
(T) Barium	79.4			85.7	85.7							
(T) Yttrium	106			111	111							

Laboratory Control Sample (LCS)

(LCS) R3952414-2 07/21/23 16:40

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	5.63	113	80.0-120	
(T) Barium			88.4		
(T) Yttrium			110		

L1628608-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1628608-09 07/21/23 16:40 • (MS) R3952414-3 07/21/23 16:40 • (MSD) R3952414-4 07/21/23 16:40

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-228	10.0	-0.185	9.88	10.1	98.8	101	1	70.0-130			2.22		20
(T) Barium		92.6		95.1	100								
(T) Yttrium		111		106	111								

Method Blank (MB)

(MB) R3950486-1 07/17/23 21:25

¹Cp

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	-0.0120	<u>U</u>	0.0199	0.0625
(T) Barium-133	93.8		93.8	

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1628608-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1628608-04 07/17/23 21:25 • (DUP) R3950486-5 07/17/23 21:25

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-226	-0.0607	0.207	0.394	0.121	0.176	0.394	1	200	0.667	<u>J</u>	20	3
(T) Barium-133	89.1			94.2	94.2							

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3950486-2 07/17/23 21:25

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-226	5.01	4.64	92.5	80.0-120	
(T) Barium-133			94.4		

L1628609-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1628609-03 07/17/23 21:25 • (MS) R3950486-3 07/17/23 21:25 • (MSD) R3950486-4 07/17/23 21:25

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.203	18.8	17.7	92.8	87.2	1	75.0-125			6.15		20
(T) Barium-133		85.6			83.0	87.6							

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	¹ Cp
Rec.	Recovery.	² Tc
RER	Replicate Error Ratio.	³ Ss
RPD	Relative Percent Difference.	⁴ Cn
SDG	Sample Delivery Group.	⁵ Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	⁶ Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁷ Gl
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	⁸ Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	⁹ Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier

Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ¹⁶	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ Al

⁹ Sc

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301**

Internal Transfer Chain of Custody

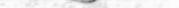
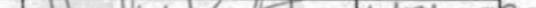
State of Origin: IL
Cert. Needed: YES NO

Pace Analytical
A034

Workorder: GF02677	Workorder Name:	Vistra - Edwards	Owner Received	Results Requ
			Date: 6/14/2023	By: 7/11/2023

Report To:	Subcontract To:	Requested Analysis
Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122	228

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers			Radium 226	U628	LAB USE ONLY
1	AP05S	GRAB	6/14/2023 10:34	GF02677-01	GW				X		-01
2	AW-01	GRAB	6/14/2023 12:35	GF02677-02	GW				X		-02
3	AW-06	GRAB	6/14/2023 10:33	GF02677-03	GW				X		-03
4	AW-08	GRAB	6/14/2023 14:24	GF02677-04	GW				X		-04
5	AW-18	GRAB	6/14/2023 12:08	GF02677-05	GW				X		-05
6	AW-19	GRAB	6/14/2023 13:40	GF02677-06	GW				X		-06
7	AW-19 DUP	GRAB	6/14/2023 13:40	GF02677-07	GW				X		-07
8	AW-21	GRAB	6/14/2023 15:40	GF02677-08	GW				X		-08
9	EB-01		6/14/2023 16:03	GF02677-09	GW				X		-09
									X		
									X		
10									X		

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1		10/21/23 1205			Needs reported as 226, 228 and also combined 226/228
2					
3				10/22/23 0900	Include QC summary and edd

Cooler Temperature on Receipt °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signal

16319 6000 9957 NS Ab
 $19.8 \pm 0 = 19.8$

FMT-ALL-C-002rev.00 24 March 2009

Page 1 of 1

Sample Receipt Checklist

COC Seal Present/Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	If Applicable			
COC Signed/Accurate:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	VOC Zero Headspace:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y
Bottles arrive intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	Pres.Correct/Check:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y
Correct bottles used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N				
Sufficient volume sent:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N				
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N				

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301**

Pace Analytical
www.paceanalytical.com

Pace Analytical Services, LLC

INTER LABORATORY WORK ORDER # GF02677

158

1638 RoseyTown Rd - Suites 2,3,4 Greensburg, PA 15601	
Receiving Project No:	GF02677
Check Box for Consolidated Invoice:	<input type="checkbox"/>
Date Prepared:	6/20/2023
REQUESTED COMPLETION DATE:	7/11/2023

Sending Region	R72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	Vistra - Edwards
State of Sample Origin	IL	QC Deliverable	STD Report

All rights reserved. No part of this publication may be reproduced without the written permission of the author.

Report Wet or Dry Weight? _____ **Cert Needed:** IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		9		9	\$242.10	\$2,178.90
						\$0.00
						\$0.00
TOTAL						\$2,178.90

卷之三

FOR ANALYTICAL WORK

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ **Receiving Project Manager:** _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.



ANALYTICAL REPORT

July 25, 2023

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1628597
Samples Received: 06/22/2023
Project Number: GF02943
Description: Vistra-Edwards
Site: 001
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

178

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

TABLE OF CONTENTS

Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	2 Tc
Ss: Sample Summary	3	3 Ss
Cn: Case Narrative	4	4 Cn
Sr: Sample Results	5	5 Sr
AP07S L1628597-01	5	
AW-05 L1628597-02	6	
EB-02 L1628597-03	7	
Qc: Quality Control Summary	8	6 Qc
Radiochemistry by Method 904/9320	8	
Radiochemistry by Method SM7500Ra B M	9	
Gl: Glossary of Terms	10	7 Gl
Al: Accreditations & Locations	11	8 Al
Sc: Sample Chain of Custody	12	9 Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

AP07S L1628597-01 Non-Potable Water

Collected by Collected date/time Received date/time
06/15/23 11:03 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093281	1	07/12/23 10:06	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094500	1	07/14/23 10:09	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094500	1	07/14/23 10:09	07/17/23 16:47	RGT	Mt. Juliet, TN

¹Cp

AW-05 L1628597-02 Non-Potable Water

Collected by Collected date/time Received date/time
06/15/23 11:31 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093281	1	07/12/23 10:06	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094500	1	07/14/23 10:09	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094500	1	07/14/23 10:09	07/17/23 16:47	RGT	Mt. Juliet, TN

²Tc

EB-02 L1628597-03 Non-Potable Water

Collected by Collected date/time Received date/time
06/15/23 14:00 06/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2093281	1	07/12/23 10:06	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2094500	1	07/14/23 10:09	07/20/23 16:47	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2094500	1	07/14/23 10:09	07/17/23 16:47	RGT	Mt. Juliet, TN

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]
Haley Torrence

Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AL
- ⁹ SC

AP07S

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Collected date/time: 06/15/23 11:33
EDWARDS POWER PLANT, ASH POND
L1628597

EDW-257-301
Radiochemistry by Method 904/9320¹Cp

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-228	0.539	J	0.622	1.14	07/20/2023 16:47	WG2093281
(<i>T</i>) Barium	64.7			30.0-143	07/20/2023 16:47	WG2093281
(<i>T</i>) Yttrium	94.0			30.0-136	07/20/2023 16:47	WG2093281

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
Combined Radium	1.20		0.709	1.19	07/20/2023 16:47	WG2094500

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-226	0.664		0.341	0.327	07/17/2023 16:47	WG2094500
(<i>T</i>) Barium-133	105			30.0-143	07/17/2023 16:47	WG2094500

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.55		0.685	1.18	07/20/2023 16:47	WG2093281
(<i>T</i>) Barium	66.6			30.0-143	07/20/2023 16:47	WG2093281
(<i>T</i>) Yttrium	96.6			30.0-136	07/20/2023 16:47	WG2093281

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	3.09		0.753	1.22	07/20/2023 16:47	WG2094500

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.540		0.313	0.305	07/17/2023 16:47	WG2094500
(<i>T</i>) Barium-133	97.1			30.0-143	07/17/2023 16:47	WG2094500

EB-02

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Collected date/time: 06/15/23 14:00
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE RESULTS 03
L1628597

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-228	0.234	<u>U</u>	0.470	0.850	07/20/2023 16:47	<u>WG2093281</u>
(<i>T</i>) Barium	74.6			30.0-143	07/20/2023 16:47	<u>WG2093281</u>
(<i>T</i>) Yttrium	102			30.0-136	07/20/2023 16:47	<u>WG2093281</u>

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
Combined Radium	0.323	<u>U</u>	0.491	0.879	07/20/2023 16:47	<u>WG2094500</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
RADIUM-226	0.0895	<u>J</u>	0.143	0.222	07/17/2023 16:47	<u>WG2094500</u>
(<i>T</i>) Barium-133	114			30.0-143	07/17/2023 16:47	<u>WG2094500</u>

(MB) R3952228-1 07/20/23 16:47

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.237	J	0.171	0.309
(T) Barium	86.7		86.7	
(T) Yttrium	106		106	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1628597-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1628597-03 07/20/23 16:47 • (DUP) R3952228-5 07/20/23 16:47

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-228	0.234	0.470	0.850	-0.986	0.427	0.850	1	200	1.92	U	20	3
(T) Barium	74.6			88.3	88.3							
(T) Yttrium	102			96.1	96.1							

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3952228-2 07/20/23 16:47

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	5.29	106	80.0-120	
(T) Barium			87.9		
(T) Yttrium			106		

L1628608-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1628608-02 07/20/23 16:47 • (MS) R3952228-3 07/20/23 16:47 • (MSD) R3952228-4 07/20/23 16:47

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.461	18.0	18.9	107	113	1	70.0-130			5.00		20
(T) Barium		82.0		82.6		79.5							
(T) Yttrium		109		106		93.4							

Method Blank (MB)

(MB) R3950475-1 07/17/23 16:47

¹Cp

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.0509		0.0411	0.0407
(T) Barium-133	93.1		93.1	

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1628597-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1628597-03 07/17/23 16:47 • (DUP) R3950475-5 07/17/23 16:47

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0895	0.143	0.222	0.202	0.189	0.222	1	77.4	0.476	↓	20	3
(T) Barium-133	114			111	111							

Laboratory Control Sample (LCS)

(LCS) R3950475-2 07/17/23 16:47

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-226	5.01	4.67	93.2	80.0-120	
(T) Barium-133			99.2		

L1628545-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1628545-01 07/17/23 16:47 • (MS) R3950475-3 07/17/23 16:47 • (MSD) R3950475-4 07/17/23 16:47

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-226	20.0	1.62	20.6	20.1	94.8	92.3	1	75.0-125			2.46		20
(T) Barium-133		94.1			88.1	98.7							

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	¹ Cp
Rec.	Recovery.	² Tc
RER	Replicate Error Ratio.	³ Ss
RPD	Relative Percent Difference.	⁴ Cn
SDG	Sample Delivery Group.	⁵ Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	⁶ Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁷ Gl
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	⁸ Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	⁹ Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier

Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ¹⁶	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ Al

⁹ Sc

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301**

Internal Transfer Chain of Custody

A037

FotoRunway
www.pocelabs.com

Workorder: GF02943		Workorder Name: Vistra - Edwards		State of Origin: IL Cert. Needed: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Owner Received		Results Requ	
Report To: Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651		Subcontract To: Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122		Date: 6/15/2023		By: 7/11/2023			
								Requested Analysis	
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers			
						Radium 226/228	<2		
1	AP07S	GRAB	6/15/2023 11:03	GF02943-01	GW	X			-01
2	AW-05	GRAB	6/15/2023 11:31	GF02943-02	GW	X			-02
3	EB-02	GRAB	6/15/2023 14:00	GF02943-03	GW	X			-03
4									
5									
6									
7									
8									
9									
10									
Transfers	Released By	Date/Time	Received By	Date/Time	Comments				
1	<i>[Signature]</i>	6/15/23 14:00			Needs reported as 226, 228 and also combined 226/228 Include QC summary and edd				
2									
3									

Cooler Temperature on Receipt °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

PH-10BDH4321 TPC-2313312
CRS-SP221V

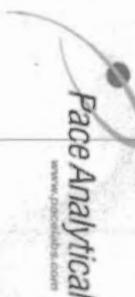
EMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Receipt Checklist		
COC Seal Present/Intact:	<input checked="" type="checkbox"/> N	If Applicable
COC Signed/Accurate:	<input checked="" type="checkbox"/> N	VOA Zero Headspace:
Bottles arrive intact:	<input checked="" type="checkbox"/> N	Pres.Correct/Check:
Correct bottles used:	<input checked="" type="checkbox"/> N	
Sufficient volume sent:	<input checked="" type="checkbox"/> N	
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> N	

63196001 0051 20.6±0=20.6
NSAIC

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301



Ship to :

Pace Analytical Services, LLC
1638 Roseytown Rd - Suites 2,3,4
www.paceanalytical.com

Greensburg, PA 15601
(724)850-5600

INTER_LABORATORY WORK ORDER # GFO2943
(To be complete by sending lab)

Sending Project No:	GFO2943
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	6/20/2023

REQUESTED COMPLETION DATE:	
	7/11/2023

All questions should be addressed to sending project manager.

Requested Reportable Units _____

Report Wet or Dry Weight? _____

Cert Needed: _____

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228	MT JULIET	3	External Client	3	\$242.10	\$726.30
	IL		QC Deliverable		\$0.00	\$0.00
					TOTAL	\$726.30

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Receiving Region Department	Acctg. Code	Totals from above		Revenue Allocation	
		Receiving Region (80%)	Client Services Dept.		
radiological	38	\$726.30	\$581.04	\$145.26	
* Custom Revenue Allocation	TOTAL	\$581.04		\$145.26	

Return Samples to Sending Region: Yes No

CONFIRMATION OF WORK COMPLETED
Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

GFO2088e / 2088
JMW 6-13-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	
Company: Vistra Corp	Report To: Brian Voelker Copy To: Jason Stuckey
Address: 13498 E. 900th St	
Email To: Brian.Voelker@vistraCorp.com	Purchase Order No.:
Phone: (217) 753-8911	Project Name:
Requested Due Date/TAT:	10 day
Project Number:	2225

Section B Required Project Information:		Section C Invoice Information:	
		Attention: Jason Stuckey	
		Company Name: Vistra Corp	REGULATORY AGENCY
		Address: See Section A	NPDES GROUND WATER DRINKING WATER
		Quide Reference: Project Manager Profile #	UST RCRA OTHER
		Site Location STATE: IL	
		Residual Chlorine (Y/N)	
		Requested Analysis Filtered (Y/N)	
		↑ Analysis Test ↑	
		↑ Sample Temp At Collection Y/N	
		# OF CONTAINERS	
		# OF PRESERVED	
		Preservatives	
		Other	
		NaOH	
		HCl	
		HNO ₃	
		H ₂ SO ₄	
		Unpreserved	
		# OF CONTAINERS TESTED	
		SAMPLE TYPE (G=GRAIN C=COMP)	
		MATERIAL CODE (See valid orders to left)	
		COLLECTED	
		DATE TIME	
SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE			
#			
1	AP05S		
2	AP07S		
3	AW-01		
4	AW-05		
5	AW-06		
6	AW-08	C	6/12/23 14:05
7	AW-09	C	6/12/23 14:05
8	AW-10		
9	AW-11		
10	AW-14		
11	AW-15	G	6/12/23 14:07
12	AW-15S	G	6/12/23 13:29
13	AW-16	G	6/12/23 15:52
14	AW-17		
15	AW-18		
16	AW-19		
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	
EDW-23Q2-Rev 0-Part A-Lab		PRINT NAME AND SIGNATURE: <i>Brian Voelker</i>	
		DATE: 6/12/23	TIME: 16:45
		ACCEPTED BY / AFFILIATION	DATE: 6/13-23
		TIME: 6:30	TIME: 6:30
		SAMPLE CONDITIONS	
		Temp in °C	
		Received on _____	
		Print Name of Sampler: Brian Voelker	
		Signature of Sampler: <i>Brian Voelker</i>	
		Date Signed (MM/DD/YY): 06/12/23	Date Signed (MM/DD/YY): 06/12/23
		Bamboo (Y/N)	
		Cutter/Saw (Y/N)	
		Scalpel (Y/N)	
		Tongs (Y/N)	
		Pliers (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
		Chisel (Y/N)	
		Wrench (Y/N)	
		Hammer (Y/N)	
		Screwdriver (Y/N)	
		Drill (Y/N)	
		Saw (Y/N)	
</			

6702086
YMW G-13-23

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND**

EDW-257-301

APPENDIX A.

**ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND**

EDW-257-301

10 of 10

Page:

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section B

Required Project Information

Section A

EDW-257-301							
REGULATORY AGENCY				REGULATORY AGENCY			
Company: Vistra Corp	Address: 13488 E. 900th St.	Report To: Brian Voelker	Copy To: Jason Stuckey	NPDES	GROUND WATER	DRINKING WATER	OTHER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.: Project Name:	Project Number: 2285	Address: see Section A	UST	RCRA		Site Location STATE: IL
Phone: (217) 753-8911	Fax: Requested Due Date/TAT: 10 day	Project Manager: Phone #:	Reference: Project Manager: Phone #:	Residual Chlorine (Y/N)			
Requested Analysis Filtered (Y/N)							
Analysis Test Y/N							
# OF CONTAINERS							
SAMPLE TEMP AT COLLECTION							
MATRIX CODE (see valid codes to left)							
SAMPLE TYPE (G=GRAB C=COMP)							
Preservatives							
Other							
Metanord NaOH HCl HNO ₃ H ₂ SO ₄ Na ₂ SO ₃							
Unpreserved							
# OF CONTAINERS							
TIME							
DATE							
ITEM							
SAMPLE ID							
Valid Matrix Codes							
DRINKING WATER DW							
WATER WT WW							
PROJECT P							
SOLID SL							
OIL OIL							
WINE WP							
AIR AR							
CT CT							
Tissue TS							
SAMPLE ID							
(A-Z, 0-9, -,)							
Sample IDs MUST BE UNIQUE							
#	ITEM	DATE	TIME	Project No./Lab I.D.			
1	AW-10	6/13/23	1529				
2	AW-11		1354				
3	AW-14		1120				
4	AW-17		1529				
5	XPW 02		1206				
6	XPW 03		1338				
7	AW-10 Dup		1520				
8							
9							
10							
11							
12							
13							
14							
15							
16							
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION		
EDW-23Q2-Rev 0-Part A-Lab		Jesse R. Red	6/13/23	1651	DATE TIME		
PRINT NAME OF SAMPLER:		SAMPLE CONDITIONS					
SIGNATURE OF SAMPLER:		6/13/23					
DATE Signed (MM/DD/YY):		6/13/23					
REGULATORY AGENCY		Samples (Y/N)					
Received on C/C		Dissolved Samples (Y/N)					
Copied (Y/N)		Copied (Y/N)					

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section C

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Regulatory Agency		NPDES		Ground Water		Drinking Water	
Company: Vistra Corp	Address: 13498 E. 900th St	Report To: Brian Voelker	Copy To: Jason Stuckey	Attention: Jason Stuckey	Company Name: Vistra Corp	Address: see Section A	Quota:	UST	RCRA	Other	Site Location:	State:	L
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:				Reference:	Project Manager:						
Phone: (217) 753-8911	Fax:	Project Name:				Profile #:							
Requested Due Date/TAT:	10 day	Project Number:	22856										
Residual Chlorine (Y/N)													
Requested Analysis Filtered (Y/N)													
Analyses Test													
# OF CONTAINERS													
SAMPLE AT COLLECTION													
Uppreserved													
Preservatives													
Project No./Lab I.D.													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257-301													
EDW-SUP-000													
EDW-845-301													
EDW-257													

GFT02943
Vmn 6-15-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section B

Required Project Information:

Section A Required Client Information:		Section C Incuse Information:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Company: Vistra Corp	Address: 13498 E. 900th St	Attention: Jason Stuckey	Project Name: Vistra Corp																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Report To: Brian Voelker	Copy To: Jason Stuckey	Address: 800 Section A	REGULATORY AGENCY:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quicke Reference:	NPDES GROUND WATER DRINKING WATER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Phone: (217) 753-8911	Fax:	Project Manager:	UST RCRA OTHER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Requested Date Date/TAT:	10 day	Profile #:	Site Location: IL STATE:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Requested Analysis Filtered (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
<input checked="" type="checkbox"/> Anesthesia Test <input checked="" type="checkbox"/> Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
<table border="1"> <thead> <tr> <th rowspan="2"># OF CONTAINERS</th> <th colspan="2">Preservatives</th> <th rowspan="2">Project No./Lab I.D.</th> </tr> <tr> <th>HNO₃</th> <th>HCl</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>NaOH</td> <td>Na₂S₂O₃</td> <td>EDW-SUP-000</td> </tr> <tr> <td>2</td> <td>H₂SO₄</td> <td>Other</td> <td>EDW-B45-301</td> </tr> <tr> <td>3</td> <td></td> <td>Methanol</td> <td>EDW-B45-301</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td>EDW-257-301</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> </tr> <tr> <td>11</td> <td></td> <td></td> <td></td> </tr> <tr> <td>12</td> <td></td> <td></td> <td></td> </tr> <tr> <td>13</td> <td></td> <td></td> <td></td> </tr> <tr> <td>14</td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td></td> <td></td> <td></td> </tr> <tr> <td>16</td> <td></td> <td></td> <td></td> </tr> <tr> <td>17</td> <td></td> <td></td> <td></td> </tr> <tr> <td>18</td> <td></td> <td></td> <td></td> </tr> <tr> <td>19</td> <td></td> <td></td> <td></td> </tr> <tr> <td>20</td> <td></td> <td></td> <td></td> </tr> <tr> <td>21</td> <td></td> <td></td> <td></td> </tr> <tr> <td>22</td> <td></td> <td></td> <td></td> </tr> <tr> <td>23</td> <td></td> <td></td> <td></td> </tr> <tr> <td>24</td> <td></td> <td></td> <td></td> </tr> <tr> <td>25</td> <td></td> <td></td> <td></td> </tr> <tr> <td>26</td> <td></td> <td></td> <td></td> </tr> <tr> <td>27</td> <td></td> <td></td> <td></td> </tr> <tr> <td>28</td> <td></td> <td></td> <td></td> </tr> <tr> <td>29</td> <td></td> <td></td> <td></td> </tr> <tr> <td>30</td> <td></td> <td></td> <td></td> </tr> <tr> <td>31</td> <td></td> <td></td> <td></td> </tr> <tr> <td>32</td> <td></td> <td></td> <td></td> </tr> <tr> <td>33</td> <td></td> <td></td> <td></td> </tr> <tr> <td>34</td> <td></td> <td></td> <td></td> </tr> <tr> <td>35</td> <td></td> <td></td> <td></td> </tr> <tr> <td>36</td> <td></td> <td></td> <td></td> </tr> <tr> <td>37</td> <td></td> <td></td> <td></td> </tr> <tr> <td>38</td> <td></td> <td></td> <td></td> </tr> <tr> <td>39</td> <td></td> <td></td> <td></td> </tr> <tr> <td>40</td> <td></td> <td></td> <td></td> </tr> <tr> <td>41</td> <td></td> <td></td> <td></td> </tr> <tr> <td>42</td> <td></td> <td></td> <td></td> </tr> <tr> <td>43</td> <td></td> <td></td> <td></td> </tr> <tr> <td>44</td> <td></td> <td></td> <td></td> </tr> <tr> <td>45</td> <td></td> <td></td> <td></td> </tr> <tr> <td>46</td> <td></td> <td></td> <td></td> </tr> <tr> <td>47</td> <td></td> <td></td> <td></td> </tr> <tr> <td>48</td> <td></td> <td></td> <td></td> </tr> <tr> <td>49</td> <td></td> <td></td> <td></td> </tr> <tr> <td>50</td> <td></td> <td></td> <td></td> </tr> <tr> <td>51</td> <td></td> <td></td> <td></td> </tr> <tr> <td>52</td> <td></td> <td></td> <td></td> </tr> <tr> <td>53</td> <td></td> <td></td> <td></td> </tr> <tr> <td>54</td> <td></td> <td></td> <td></td> </tr> <tr> <td>55</td> <td></td> <td></td> <td></td> </tr> <tr> <td>56</td> <td></td> <td></td> <td></td> </tr> <tr> <td>57</td> <td></td> <td></td> <td></td> </tr> <tr> <td>58</td> <td></td> <td></td> <td></td> </tr> <tr> <td>59</td> <td></td> <td></td> <td></td> </tr> <tr> <td>60</td> <td></td> <td></td> <td></td> </tr> <tr> <td>61</td> <td></td> <td></td> <td></td> </tr> <tr> <td>62</td> <td></td> <td></td> <td></td> </tr> <tr> <td>63</td> <td></td> <td></td> <td></td> </tr> <tr> <td>64</td> <td></td> <td></td> <td></td> </tr> <tr> <td>65</td> <td></td> <td></td> <td></td> </tr> <tr> <td>66</td> <td></td> <td></td> <td></td> </tr> <tr> <td>67</td> <td></td> <td></td> <td></td> </tr> <tr> <td>68</td> <td></td> <td></td> <td></td> </tr> <tr> <td>69</td> <td></td> <td></td> <td></td> </tr> <tr> <td>70</td> <td></td> <td></td> <td></td> </tr> <tr> <td>71</td> <td></td> <td></td> <td></td> </tr> <tr> <td>72</td> <td></td> <td></td> <td></td> </tr> <tr> <td>73</td> <td></td> <td></td> <td></td> </tr> <tr> <td>74</td> <td></td> <td></td> <td></td> </tr> <tr> <td>75</td> <td></td> <td></td> <td></td> </tr> <tr> <td>76</td> <td></td> <td></td> <td></td> </tr> <tr> <td>77</td> <td></td> <td></td> <td></td> </tr> <tr> <td>78</td> <td></td> <td></td> <td></td> </tr> <tr> <td>79</td> <td></td> <td></td> <td></td> </tr> <tr> <td>80</td> <td></td> <td></td> <td></td> </tr> <tr> <td>81</td> <td></td> <td></td> <td></td> </tr> <tr> <td>82</td> <td></td> <td></td> <td></td> </tr> <tr> <td>83</td> <td></td> <td></td> <td></td> </tr> <tr> <td>84</td> <td></td> <td></td> <td></td> </tr> <tr> <td>85</td> <td></td> <td></td> <td></td> </tr> <tr> <td>86</td> <td></td> <td></td> <td></td> </tr> <tr> <td>87</td> <td></td> <td></td> <td></td> </tr> <tr> <td>88</td> <td></td> <td></td> <td></td> </tr> <tr> <td>89</td> <td></td> <td></td> <td></td> </tr> <tr> <td>90</td> <td></td> <td></td> <td></td> </tr> <tr> <td>91</td> <td></td> <td></td> <td></td> </tr> <tr> <td>92</td> <td></td> <td></td> <td></td> </tr> <tr> <td>93</td> <td></td> <td></td> <td></td> </tr> <tr> <td>94</td> <td></td> <td></td> <td></td> </tr> <tr> <td>95</td> <td></td> <td></td> <td></td> </tr> <tr> <td>96</td> <td></td> <td></td> <td></td> </tr> <tr> <td>97</td> <td></td> <td></td> <td></td> </tr> <tr> <td>98</td> <td></td> <td></td> <td></td> </tr> <tr> <td>99</td> <td></td> <td></td> <td></td> </tr> <tr> <td>100</td> <td></td> <td></td> <td></td> </tr> <tr> <td>101</td> <td></td> <td></td> <td></td> </tr> <tr> <td>102</td> <td></td> <td></td> <td></td> </tr> <tr> <td>103</td> <td></td> <td></td> <td></td> </tr> <tr> <td>104</td> <td></td> <td></td> <td></td> </tr> <tr> <td>105</td> <td></td> <td></td> <td></td> </tr> <tr> <td>106</td> <td></td> <td></td> <td></td> </tr> <tr> <td>107</td> <td></td> <td></td> <td></td> </tr> <tr> <td>108</td> <td></td> <td></td> <td></td> </tr> <tr> <td>109</td> <td></td> <td></td> <td></td> </tr> <tr> <td>110</td> <td></td> <td></td> <td></td> </tr> <tr> <td>111</td> <td></td> <td></td> <td></td> </tr> <tr> <td>112</td> <td></td> <td></td> <td></td> </tr> <tr> <td>113</td> <td></td> <td></td> <td></td> </tr> <tr> <td>114</td> <td></td> <td></td> <td></td> </tr> <tr> <td>115</td> <td></td> <td></td> <td></td> </tr> <tr> <td>116</td> <td></td> <td></td> <td></td> </tr> <tr> <td>117</td> <td></td> <td></td> <td></td> </tr> <tr> <td>118</td> <td></td> <td></td> <td></td> </tr> <tr> <td>119</td> <td></td> <td></td> <td></td> </tr> <tr> <td>120</td> <td></td> <td></td> <td></td> </tr> <tr> <td>121</td> <td></td> <td></td> <td></td> </tr> <tr> <td>122</td> <td></td> <td></td> <td></td> </tr> <tr> <td>123</td> <td></td> <td></td> <td></td> </tr> <tr> <td>124</td> <td></td> <td></td> <td></td> </tr> <tr> <td>125</td> <td></td> <td></td> <td></td> </tr> <tr> <td>126</td> <td></td> <td></td> <td></td> </tr> <tr> <td>127</td> <td></td> <td></td> <td></td> </tr> <tr> <td>128</td> <td></td> <td></td> <td></td> </tr> <tr> <td>129</td> <td></td> <td></td> <td></td> </tr> <tr> <td>130</td> <td></td> <td></td> <td></td> </tr> <tr> <td>131</td> <td></td> <td></td> <td></td> </tr> <tr> <td>132</td> <td></td> <td></td> <td></td> </tr> <tr> <td>133</td> <td></td> <td></td> <td></td> </tr> <tr> <td>134</td> <td></td> <td></td> <td></td> </tr> <tr> <td>135</td> <td></td> <td></td> <td></td> </tr> <tr> <td>136</td> <td></td> <td></td> <td></td> </tr> <tr> <td>137</td> <td></td> <td></td> <td></td> </tr> <tr> <td>138</td> <td></td> <td></td> <td></td> </tr> <tr> <td>139</td> <td></td> <td></td> <td></td> </tr> <tr> <td>140</td> <td></td> <td></td> <td></td> </tr> <tr> <td>141</td> <td></td> <td></td> <td></td> </tr> <tr> <td>142</td> <td></td> <td></td> <td></td> </tr> <tr> <td>143</td> <td></td> <td></td> <td></td> </tr> <tr> <td>144</td> <td></td> <td></td> <td></td> </tr> <tr> <td>145</td> <td></td> <td></td> <td></td> </tr> <tr> <td>146</td> <td></td> <td></td> <td></td> </tr> <tr> <td>147</td> <td></td> <td></td> <td></td> </tr> <tr> <td>148</td> <td></td> <td></td> <td></td> </tr> <tr> <td>149</td> <td></td> <td></td> <td></td> </tr> <tr> <td>150</td> <td></td> <td></td> <td></td> </tr> <tr> <td>151</td> <td></td> <td></td> <td></td> </tr> <tr> <td>152</td> <td></td> <td></td> <td></td> </tr> <tr> <td>153</td> <td></td> <td></td> <td></td> </tr> <tr> <td>154</td> <td></td> <td></td> <td></td> </tr> <tr> <td>155</td> <td></td> <td></td> <td></td> </tr> <tr> <td>156</td> <td></td> <td></td> <td></td> </tr> <tr> <td>157</td> <td></td> <td></td> <td></td> </tr> <tr> <td>158</td> <td></td> <td></td> <td></td> </tr> <tr> <td>159</td> <td></td> <td></td> <td></td> </tr> <tr> <td>160</td> <td></td> <td></td> <td></td> </tr> <tr> <td>161</td> <td></td> <td></td> <td></td> </tr> <tr> <td>162</td> <td></td> <td></td> <td></td> </tr> <tr> <td>163</td> <td></td> <td></td> <td></td> </tr> <tr> <td>164</td> <td></td> <td></td> <td></td> </tr> <tr> <td>165</td> <td></td> <td></td> <td></td> </tr> <tr> <td>166</td> <td></td> <td></td> <td></td> </tr> <tr> <td>167</td> <td></td> <td></td> <td></td> </tr> <tr> <td>168</td> <td></td> <td></td> <td></td> </tr> <tr> <td>169</td> <td></td> <td></td> <td></td> </tr> <tr> <td>170</td> <td></td> <td></td> <td></td> </tr> <tr> <td>171</td> <td></td> <td></td> <td></td> </tr> <tr> <td>172</td> <td></td> <td></td> <td></td> </tr> <tr> <td>173</td> <td></td> <td></td> <td></td> </tr> <tr> <td>174</td> <td></td> <td></td> <td></td> </tr> <tr> <td>175</td> <td></td> <td></td> <td></td> </tr> <tr> <td>176</td> <td></td> <td></td> <td></td> </tr> <tr> <td>177</td> <td></td> <td></td> <td></td> </tr> <tr> <td>178</td> <td></td> <td></td> <td></td> </tr> <tr> <td>179</td> <td></td> <td></td> <td></td> </tr> <tr> <td>180</td> <td></td> <td></td> <td></td> </tr> <tr> <td>181</td> <td></td> <td></td> <td></td> </tr> <tr> <td>182</td> <td></td> <td></td> <td></td> </tr> <tr> <td>183</td> <td></td> <td></td> <td></td> </tr> <tr> <td>184</td> <td></td> <td></td> <td></td> </tr> <tr> <td>185</td> <td></td> <td></td> <td></td> </tr> <tr> <td>186</td> <td></td> <td></td> <td></td> </tr> <tr> <td>187</td> <td></td> <td></td> <td></td> </tr> <tr> <td>188</td> <td></td> <td></td> <td></td> </tr> <tr> <td>189</td> <td></td> <td></td> <td></td> </tr> <tr> <td>190</td> <td></td> <td></td> <td></td> </tr> <tr> <td>191</td> <td></td> <td></td> <td></td> </tr> <tr> <td>192</td> <td></td> <td></td> <td></td> </tr> <tr> <td>193</td> <td></td> <td></td> <td></td> </tr> <tr> <td>194</td> <td></td> <td></td> <td></td> </tr> <tr> <td>195</td> <td></td> <td></td> <td></td> </tr> <tr> <td>196</td> <td></td> <td></td> <td></td> </tr> <tr> <td>197</td> <td></td> <td></td> <td></td> </tr> <tr> <td>198</td> <td></td> <td></td> <td></td> </tr> <tr> <td>199</td> <td></td> <td></td> <td></td> </tr> <tr> <td>200</td> <td></td> <td></td> <td></td> </tr> <tr> <td>201</td> <td></td> <td></td> <td></td> </tr> <tr> <td>202</td> <td></td> <td></td> <td></td> </tr> <tr> <td>203</td> <td></td> <td></td> <td></td> </tr> <tr> <td>204</td> <td></td> <td></td> <td></td> </tr> <tr> <td>205</td> <td></td> <td></td> <td></td> </tr> <tr> <td>206</td> <td></td> <td></td> <td></td> </tr> <tr> <td>207</td> <td></td> <td></td> <td></td> </tr> <tr> <td>208</td> <td></td> <td></td> <td></td> </tr> <tr> <td>209</td> <td></td> <td></td> <td></td> </tr> <tr> <td>210</td> <td></td> <td></td> <td></td> </tr> <tr> <td>211</td> <td></td> <td></td> <td></td> </tr> <tr> <td>212</td> <td></td> <td></td> <td></td> </tr> <tr> <td>213</td> <td></td> <td></td> <td></td> </tr> <tr> <td>214</td> <td></td> <td></td> <td></td> </tr> <tr> <td>215</td> <td></td> <td></td> <td></td> </tr> <tr> <td>216</td> <td></td> <td></td> <td></td> </tr> <tr> <td>217</td> <td></td> <td></td> <td></td> </tr> <tr> <td>218</td> <td></td> <td></td> <td></td> </tr> <tr> <td>219</td> <td></td> <td></td> <td></td> </tr> <tr> <td>220</td> <td></td> <td></td> <td></td> </tr> <tr> <td>221</td> <td></td> <td></td> <td></td> </tr> <tr> <td>222</td> <td></td> <td></td> <td></td> </tr> <tr> <td>223</td> <td></td> <td></td> <td></td> </tr> <tr> <td>224</td> <td></td> <td></td> <td></td> </tr> <tr> <td>225</td> <td></td> <td></td> <td></td> </tr> <tr> <td>226</td> <td></td> <td></td> <td></td> </tr> <tr> <td>227</td> <td></td> <td></td> <td></td> </tr> <tr> <td>228</td> <td></td> <td></td> <td></td> </tr> <tr> <td>229</td> <td></td> <td></td> <td></td> </tr> <tr> <td>230</td> <td></td> <td></td> <td></td> </tr> <tr> <td>231</td> <td></td> <td></td> <td></td> </tr> <tr> <td>232</td> <td></td> <td></td> <td></td> </tr> <tr> <td>233</td> <td></td> <td></td> <td></td> </tr> <tr> <td>234</td> <td></td> <td></td> <td></td> </tr> <tr> <td>235</td> <td></td> <td></td> <td></td> </tr> <tr> <td>236</td> <td></td> <td></td> <td></td> </tr> <tr> <td>237</td> <td></td> <td></td> <td></td> </tr> <tr> <td>238</td> <td></td> <td></td> <td></td> </tr> <tr> <td>239</td> <td></td> <td></td> <td></td> </tr> <tr> <td>240</td> <td></td> <td></td> <td></td> </tr> <tr> <td>241</td> <td></td> <td></td> <td></td> </tr> <tr> <td>242</td> <td></td> <td></td> <td></td> </tr> <tr> <td>243</td> <td></td> <td></td> <td></td> </tr> <tr> <td>244</td> <td></td> <td></td> <td></td> </tr> <tr> <td>245</td> <td></td> <td></td> <td></td> </tr> <tr> <td>246</td> <td></td> <td></td> <td></td> </tr> <tr> <td>247</td> <td></td> <td></td> <td></td> </tr> <tr> <td>248</td> <td></td> <td></td> <td></td> </tr> <tr> <td>249</td> <td></td> <td></td> <td></td> </tr> <tr> <td>250</td> <td></td> <td></td> <td></td> </tr> <tr> <td>251</td> <td></td> <td></td> <td></td> </tr> <tr> <td>252</td> <td></td> <td></td> <td></td> </tr> <tr> <td>253</td> <td></td> <td></td> <td></td> </tr> <tr> <td>254</td> <td></td> <td></td> <td></td> </tr> <tr> <td>255</td> <td></td> <td></td> <td></td> </tr> <tr> <td>256</td> <td></td> <td></td> <td></td> </tr> <tr> <td>257</td> <td></td> <td></td> <td></td> </tr> <tr> <td>258</td> <td></td> <td></td> <td></td> </tr> <tr> <td>259</td> <td></td> <td></td> <td></td> </tr> <tr> <td>260</td> <td></td> <td></td> <td></td> </tr> <tr> <td>261</td> <td></td> <td></td> <td></td> </tr> <tr> <td>262</td> <td></td> <td></td> <td></td> </tr> <tr> <td>263</td> <td></td> <td></td> <td></td> </tr> <tr> <td>264</td> <td></td> <td></td> <td></td> </tr> <tr> <td>265</td> <td></td> <td></td> <td></td> </tr> <tr> <td>266</td> <td></td> <td></td> <td></td> </tr> <tr> <td>267</td> <td></td> <td></td> <td></td> </tr> <tr> <td>268</td> <td></td> <td></td> <td></td> </tr> <tr> <td>269</td> <td></td> <td></td> <td></td> </tr> <tr> <td>270</td> <td></td> <td></td> <td></td> </tr> <tr> <td>271</td> <td></td> <td></td> <td></td> </tr> <tr> <td>272</td> <td></td> <td></td> <td></td> </tr> <tr> <td>273</td> <td></td> <td></td> <td></td> </tr> <tr> <td>274</td> <td></td> <td></td> <td></td> </tr> <tr> <td>275</td> <td></td> <td></td> <td></td> </tr> <tr> <td>276</td> <td></td> <td></td> <td></td> </tr> <tr> <td>277</td> <td></td> <td></td> <td></td> </tr> <tr> <td>278</td> <td></td> <td></td> <td></td> </tr> <tr> <td>279</td> <td></td> <td></td> <td></td> </tr> <tr> <td>280</td> <td></td> <td></td> <td></td> </tr> <tr> <td>281</td> <td></td> <td></td> <td></td> </tr> <tr> <td>282</td> <td></td> <td></td> <td></td> </tr> <tr> <td>283</td> <td></td> <td></td> <td></td> </tr> <tr> <td>284</td> <td></td> <td></td> <td></td> </tr> <tr> <td>285</td> <td></td> <td></td> <td></td> </tr> <tr> <td>286</td> <td></td> <td></td> <td></td> </tr> <tr> <td>287</td> <td></td> <td></td> <td></td> </tr> <tr> <td>288</td> <td></td> <td></td> <td></td> </tr> <tr> <td>289</td> <td></td> <td></td> <td></td> </tr> <tr> <td>290</td> <td></td> <td></td> <td></td> </tr> <tr> <td>291</td> <td></td> <td></td> <td></td> </tr> <tr> <td>292</td> <td></td> <td></td> <td></td> </tr> <tr> <td>293</td> <td></td> <td></td> <td></td> </tr> <tr> <td>294</td> <td></td> <td></td> <td></td> </tr> <tr> <td>295</td> <td></td> <td></td> <td></td> </tr> <tr> <td>296</td> <td></td> <td></td> <td></td> </tr> <tr> <td>297</td> <td></td> <td></td> <td></td> </tr> <tr> <td>298</td> <td></td> <td></td> <td></td> </tr> <tr> <td>299</td> <td></td> <td></td> <td></td> </tr> <tr> <td>300</td> <td></td> <td></td> <td></td> </tr> <tr> <td>301</td> <td></td> <td></td> <td></td> </tr> <tr> <td>302</td> <td></td> <td></td> <td></td> </tr> <tr> <td>303</td> <td></td> <td></td> <td></td> </tr> <tr> <td>304</td> <td></td> <td></td> <td></td> </tr> <tr> <td>305</td> <td></td> <td></td> <td></td> </tr> <tr> <td>306</td> <td></td> <td></td> <td></td> </tr> <tr> <td>307</td> <td></td> <td></td> <td></td> </tr> <tr> <td>308</td> <td></td> <td></td> <td></td> </tr> <tr> <td>309</td> <td></td> <td></td> <td></td> </tr> <tr> <td>310</td> <td></td> <td></td> <td></td> </tr> <tr> <td>311</td> <td></td> <td></td> <td></td> </tr> <tr> <td>312</td> <td></td> <td></td> <td></td> </tr> <tr> <td>313</td> <td></td> <td></td> <td></td> </tr> <tr> <td>314</td> <td></td> <td></td> <td></td> </tr> <tr> <td>315</td> <td></td> <td></td> <td></td> </tr> <tr> <td>316</td> <td></td> <td></td> <td></td> </tr> <tr> <td>317</td> <td></td> <td></td> <td></td> </tr> <tr> <td>318</td> <td></td> <td></td> <td></td> </tr> <tr> <td>319</td> <td></td> <td></td> <td></td> </tr> <tr> <td>320</td> <td></td> <td></td> <td></td> </tr> <tr> <td>321</td> <td></td> <td></td> <td></td> </tr> <tr> <td>322</td> <td></td> <td></td> <td></td> </tr> <tr> <td>323</td> <td></td> <td></td> <td></td> </tr> <tr> <td>324</td> <td></td> <td></td> <td></td> </tr> <tr> <td>325</td> <td></td> <td></td> <td></td> </tr> <tr> <td>326</td> <td></td> <td></td> <td></td> </tr> <tr> <td>327</td> <td></td> <td></td> <td></td> </tr> <tr> <td>328</td> <td></td> <td></td> <td></td> </tr> <tr> <td>329</td> <td></td> <td></td> <td></td> </tr> <tr> <td>330</td> <td></td> <td></td> <td></td> </tr> <tr> <td>331</td> <td></td> <td></td> <td></td> </tr> <tr> <td>332</td> <td></td> <td></td> <td></td> </tr> <tr> <td>333</td> <td></td> <td></td> <td></td> </tr> <tr> <td>334</td> <td></td> <td></td> <td></td> </tr> <tr> <td>335</td> <td></td> <td></td> <td></td> </tr> <tr> <td>336</td> <td></td> <td></td> <td></td> </tr> <tr> <td>337</td> <td></td> <td></td> <td></td> </tr> <tr> <td>338</td> <td></td> <td></td> <td></td> </tr> <tr> <td>339</td> <td></td> <td></td> <td></td> </tr> <tr> <td>340</td> <td></td> <td></td> <td></td> </tr> <tr> <td>341</td> <td></td> <td></td> <td></td> </tr> <tr> <td>342</td> <td></td> <td></td> <td></td> </tr> <tr> <td>343</td> <td></td> <td></td> <td></td> </tr> <tr> <td>344</td> <td></td> <td></td> <td></td> </tr> <tr> <td>345</td> <td></td> <td></td> <td></td> </tr> <tr> <td>346</td> <td></td> <td></td> <td></td> </tr> <tr> <td>347</td> <td></td> <td></td> <td></td> </tr> <tr> <td>348</td> <td></td> <td></td> <td></td> </tr> <tr> <td>349</td> <td></td> <td></td> <td></td> </tr> <tr> <td>350</td> <td></td> <td></td> <td></td> </tr> <tr> <td>351</td> <td></td> <td></td> <td></td> </tr> <tr> <td>352</td> <td></td> <td></td> <td></td> </tr> <tr> <td>353</td> <td></td> <td></td> <td></td> </tr> <tr> <td>354</td> <td></td> <td></td> <td></td> </tr> <tr> <td>355</td> <td></td> <td></td> <td></td> </tr> <tr> <td>356</td> <td></td> <td></td> <td></td> </tr> <tr> <td>357</td> <td></td> <td></td> <td></td> </tr> <tr> <td>358</td> <td></td> <td></td> <td></td> </tr> <tr> <td>359</td> <td></td> <td></td> <td></td> </tr> <tr> <td>360</td> <td></td> <td></td> <td></td> </tr> <tr> <td>361</td> <td></td> <td></td> <td></td> </tr> <tr> <td>362</td> <td></td> <td></td> <td></td> </tr> <tr> <td>363</td> <td></td> <td></td> <td></td> </tr> <tr> <td>364</td> <td></td> <td></td> <td></td> </tr> <tr> <td>365</td> <td></td> <td></td> <td></td> </tr> <tr> <td>366</td> <td></td> <td></td> <td></td> </tr> <tr> <td>367</td> <td></td> <td></td> <td></td> </tr> <tr> <td>368</td> <td></td> <td></td> <td></td> </tr> <tr> <td>369</td> <td></td> <td></td> <td></td> </tr> <tr> <td>370</td> <td></td> <td></td> <td></td> </tr> <tr> <td>371</td> <td></td> <td></td> <td></td> </tr> <tr> <td>372</td> <td></td> <td></td> <td></td> </tr> <tr> <td>373</td> <td></td> <td></td> <td></td> </tr> <tr> <td>374</td> <td></td> <td></td> <td></td> </tr> <tr> <td>375</td> <td></td> <td></td> <td></td> </tr> <tr> <td>376</td> <td></td> <td></td> <td></td> </tr> <tr> <td>377</td> <td></td> <td></td> <td></td> </tr> <tr> <td>378</td> <td></td> <td></td> <td></td> </tr> <tr> <td>379</td> <td></td> <td></td> <td></td> </tr> <tr> <td>380</td> <td></td> <td></td> <td></td> </tr> <tr> <td>381</td> <td></td> <td></td> <td></td> </tr> <tr> <td>382</td> <td></td> <td></td> <td></td> </tr> <tr> <td>383</td> <td></td> <td></td> <td></td> </tr> <tr> <td>384</td> <td></td> <td></td> <td></td> </tr> <tr> <td>385</td> <td></td> <td></td> <td></td> </tr> <tr> <td>386</td> <td></td> <td></td> <td></td> </tr> <tr> <td>387</td> <td></td> <td></td> <td></td> </tr> <tr> <td>388</td> <td></td> <td></td> <td></td> </tr> <tr> <td>389</td> <td></td> <td></td> <td></td> </tr> <tr> <td>390</td> <td></td> <td></td> <td></td> </tr> <tr> <td>391</td> <td></td> <td></td> <td></td> </tr> <tr> <td>392</td> <td></td> <td></td> <td></td> </tr> <tr> <td>393</td> <td></td> <td></td> <td></td> </tr> <tr> <td>394</td> <td></td> <td></td> <td></td> </tr> <tr> <td>395</td> <td></td> <td></td> <td></td> </tr> <tr> <td>396</td> <td></td> <td></td> <td></td> </tr> <tr> <td>397</td> <td></td> <td></td> <td></td> </tr> <tr> <td>398</td> <td></td> <td></td> <td></td> </tr> <tr> <td>399</td> <td></td> <td></td> <td></td> </tr> <tr> <td>400</td> <td></td> <td></td> <td></td> </tr> <tr> <td>401</td> <td></td> <td></td> <td></td> </tr> <tr> <td>402</td> <td></td> <td></td> <td></td> </tr> <tr> <td>403</td> <td></td> <td></td> <td></td> </tr> <tr> <td>404</td> <td></td> <td></td> <td></td> </tr> <tr> <td>405</td> <td></td> <td></td> <td></td> </tr> <tr> <td>406</td> <td></td> <td></td> <td></td> </tr> <tr> <td>407</td> <td></td> <td></td> <td></td> </tr> <tr> <td>408</td> <td></td> <td></td> <td></td> </tr> <tr> <td>409</td> <td></td> <td></td> <td></td> </tr> <tr> <td>410</td> <td></td> <td></td> <td></td> </tr> <tr> <td>411</td> <td></td> <td></td> <td></td> </tr> <tr> <td>412</td> <td></td> <td></td> <td></td> </tr> <tr> <td>413</td> <td></td> <td></td> <td></td> </tr> <tr> <td>414</td> <td></td> <td></td> <td></td> </tr> <tr> <td>415</td> <td></td> <td></td> <td></td> </tr> <tr> <td>416</td> <td></td> <td></td> <td></td> </tr> <tr> <td>417</td> <td></td> <td></td> <td></td> </tr> <tr> <td>418</td> <td></td> <td></td> <td></td> </tr> <tr> <td>419</td> <td></td> <td></td> <td></td> </tr> <tr> <td>420</td> <td></td> <td></td> <td></td> </tr> <tr> <td>421</td> <td></td> <td></td> <td></td> </tr> <tr> <td>422</td> <td></td> <td></td> <td></td> </tr> <tr> <td>423</td> <td></td> <td></td> <td></td> </tr> <tr> <td>424</td> <td></td> <td></td> <td></td> </tr> <tr> <td>425</td> <td></td> <td></td> <td></td> </tr> <tr> <td>426</td> <td></td> <td></td> <td></td> </tr> <tr> <td>427</td> <td></td> <td></td> <td></td> </tr> <tr> <td>428</td> <td></td> <td></td> <td></td> </tr> <tr> <td>429</td> <td></td> <td></td> <td></td> </tr> <tr> <td</tr></tbody></table>				# OF CONTAINERS	Preservatives		Project No./Lab I.D.	HNO ₃	HCl	1	NaOH	Na ₂ S ₂ O ₃	EDW-SUP-000	2	H ₂ SO ₄	Other	EDW-B45-301	3		Methanol	EDW-B45-301	4			EDW-257-301	5				6				7				8				9				10				11				12				13				14				15				16				17				18				19				20				21				22				23				24				25				26				27				28				29				30				31				32				33				34				35				36				37				38				39				40				41				42				43				44				45				46				47				48				49				50				51				52				53				54				55				56				57				58				59				60				61				62				63				64				65				66				67				68				69				70				71				72				73				74				75				76				77				78				79				80				81				82				83				84				85				86				87				88				89				90				91				92				93				94				95				96				97				98				99				100				101				102				103				104				105				106				107				108				109				110				111				112				113				114				115				116				117				118				119				120				121				122				123				124				125				126				127				128				129				130				131				132				133				134				135				136				137				138				139				140				141				142				143				144				145				146				147				148				149				150				151				152				153				154				155				156				157				158				159				160				161				162				163				164				165				166				167				168				169				170				171				172				173				174				175				176				177				178				179				180				181				182				183				184				185				186				187				188				189				190				191				192				193				194				195				196				197				198				199				200				201				202				203				204				205				206				207				208				209				210				211				212				213				214				215				216				217				218				219				220				221				222				223				224				225				226				227				228				229				230				231				232				233				234				235				236				237				238				239				240				241				242				243				244				245				246				247				248				249				250				251				252				253				254				255				256				257				258				259				260				261				262				263				264				265				266				267				268				269				270				271				272				273				274				275				276				277				278				279				280				281				282				283				284				285				286				287				288				289				290				291				292				293				294				295				296				297				298				299				300				301				302				303				304				305				306				307				308				309				310				311				312				313				314				315				316				317				318				319				320				321				322				323				324				325				326				327				328				329				330				331				332				333				334				335				336				337				338				339				340				341				342				343				344				345				346				347				348				349				350				351				352				353				354				355				356				357				358				359				360				361				362				363				364				365				366				367				368				369				370				371				372				373				374				375				376				377				378				379				380				381				382				383				384				385				386				387				388				389				390				391				392				393				394				395				396				397				398				399				400				401				402				403				404				405				406				407				408				409				410				411				412				413				414				415				416				417				418				419				420				421				422				423				424				425				426				427				428				429			
# OF CONTAINERS	Preservatives		Project No./Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	HNO ₃	HCl																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
1	NaOH	Na ₂ S ₂ O ₃	EDW-SUP-000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
2	H ₂ SO ₄	Other	EDW-B45-301																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
3		Methanol	EDW-B45-301																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
4			EDW-257-301																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
11																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
13																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
16																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
17																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
21																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
23																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
26																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
27																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
29																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
31																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
32																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
33																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
34																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
35																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
38																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
39																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
41																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
42																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
43																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
44																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
45																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
46																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
47																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
48																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
49																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
51																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
52																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
53																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
54																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
55																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
56																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
57																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
58																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
59																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
61																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
62																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
63																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
64																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
65																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
66																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
67																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
68																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
69																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
71																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
72																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
74																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
75																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
76																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
77																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
79																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
80																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
81																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
82																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
83																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
84																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
85																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
86																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
87																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
88																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
89																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
90																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
91																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
92																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
93																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
94																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
95																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
96																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
97																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
98																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
101																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
102																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
103																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
104																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
105																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
106																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
107																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
108																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
109																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
110																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
111																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
112																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
113																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
114																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
115																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
116																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
117																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
118																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
119																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
120																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
121																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
122																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
123																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
124																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
125																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
126																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
127																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
128																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
129																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
130																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
131																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
132																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
133																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
134																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
135																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
136																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
137																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
138																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
139																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
140																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
141																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
142																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
143																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
144																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
145																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
146																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
147																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
148																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
149																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
150																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
151																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
152																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
153																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
154																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
155																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
156																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
157																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
158																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
160																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
161																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
162																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
163																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
164																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
165																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
166																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
167																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
168																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
169																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
170																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
171																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
172																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
173																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
174																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
175																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
176																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
177																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
178																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
179																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
180																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
181																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
182																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
183																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
184																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
185																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
186																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
187																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
188																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
189																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
190																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
191																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
192																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
193																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
194																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
195																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
196																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
197																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
198																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
199																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
200																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
201																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
202																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
203																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
204																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
205																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
206																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
207																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
208																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
209																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
210																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
211																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
212																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
213																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
214																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
215																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
216																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
217																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
218																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
219																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
220																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
221																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
222																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
223																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
224																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
225																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
226																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
227																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
228																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
229																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
230																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
231																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
232																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
233																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
234																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
236																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
237																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
238																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
239																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
240																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
241																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
242																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
243																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
244																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
245																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
246																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
247																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
248																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
249																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
250																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
251																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
252																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
253																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
254																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
255																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
256																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
257																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
258																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
259																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
260																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
261																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
262																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
263																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
264																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
265																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
266																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
267																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
268																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
269																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
270																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
271																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
272																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
273																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
274																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
275																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
276																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
277																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
278																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
279																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
280																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
281																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
282																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
283																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
284																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
285																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
286																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
287																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
288																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
289																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
290																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
291																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
292																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
293																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
294																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
295																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
296																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
297																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
298																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
299																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
300																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
301																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
302																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
303																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
304																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
305																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
306																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
307																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
308																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
309																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
310																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
311																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
312																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
313																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
314																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
315																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
316																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
317																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
318																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
319																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
320																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
321																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
322																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
323																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
324																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
325																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
326																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
327																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
328																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
329																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
330																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
331																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
332																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
333																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
334																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
335																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
336																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
337																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
338																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
339																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
340																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
341																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
342																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
343																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
344																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
345																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
346																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
347																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
348																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
349																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
350																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
351																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
352																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
353																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
354																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
355																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
356																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
357																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
358																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
359																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
360																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
361																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
362																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
363																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
364																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
365																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
366																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
367																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
368																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
369																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
370																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
371																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
372																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
373																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
374																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
375																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
376																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
377																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
378																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
379																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
380																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
381																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
382																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
383																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
384																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
385																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
386																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
387																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
388																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
389																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
390																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
391																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
392																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
393																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
394																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
395																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
396																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
397																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
398																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
399																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
400																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
401																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
402																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
403																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
404																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
405																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
406																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
407																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
408																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
409																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
410																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
411																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
412																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
413																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
414																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
415																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
416																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
417																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
418																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
419																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
420																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
421																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
422																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
423																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
424																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
425																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
426																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
427																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
428																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
429																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

GF02943

Vnu 6-15-23.

COC# : 0615-001

CHAIN-OF-CUSTODY / Analytical Request Document

Section A
Required Client Information:

Company	Vistra Corp
Address:	13488 E. 900th St
EMail To:	Brian.Veelker@VistraCorp.com
Phone:	(217) 733-8911
Requested Date Dated/TAT:	10 day

Section B
Required Project Information:

Report To:	Brian Veelker
Copy To:	Jason Stuckey
Purchase Order No.:	
Project Name:	Project Number: 2285

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section C
Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quale Reference:	
Project Manager:	Prints #

REGULATORY AGENCY

NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER

Residual Chlorine (Y/N)

ITEM	DATE	TIME	Requested Analysis Filtered (Y/N)											
			EDW-SUP-000											
Preservatives			X	X	X	X	X	X	X	X	X	X	X	X
Antibiotics Test			X	X	X	X	X	X	X	X	X	X	X	X
Other			X	X	X	X	X	X	X	X	X	X	X	X
Methanol			X	X	X	X	X	X	X	X	X	X	X	X
Na ₂ SO ₄			X	X	X	X	X	X	X	X	X	X	X	X
HCl			X	X	X	X	X	X	X	X	X	X	X	X
HNO ₃			X	X	X	X	X	X	X	X	X	X	X	X
H ₂ SO ₄			X	X	X	X	X	X	X	X	X	X	X	X
# OF CONTAINERS			X	X	X	X	X	X	X	X	X	X	X	X
SAMPLE TEMP AT COLLECTION			X	X	X	X	X	X	X	X	X	X	X	X
COLLECTED			X	X	X	X	X	X	X	X	X	X	X	X
MATRIX CODE (see valid codes to left)	GW	6/14/23	15:44	X	X	X	X	X	X	X	X	X	X	X
VALID Matrix Codes	CODES													
Drinking Water	DW													
Water	WT													
Waste Water	WW													
Product	PD													
Solvent	SL													
Oil	OL													
Gas	GS													
Other	OT													
Tissue	TS													

SAMPLE ID

(A-Z, AA-J, -)

Sample IDs MUST BE UNIQUE

ITEM

ITEM	DATE	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME
1 APW-01	6/14/23	15:44													
2 AW-20	6/15/23	10:05													
3 AW-23	6/14/23	13:23													
4 EMW-05	6/15/23	07:11													
5 DUP-1	6/15/23	10:10													
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															

ADDITIONAL COMMENTS

RElinquished By / AFFILIATION	EDW-23Q2-Rev 0-Part B-Ramboll
DATE	6/15/23
TIME	15:23

SAMPLE CONDITIONS

DATE	6/15/23
TIME	15:22

SAMPLE CONDITIONS

Signature

SAR-3: Depth to Groundwater Measurements
Plant: EDW
Event: EDW-23Q2 Rev 1

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Well	Unique ID	Episodic	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	WL from HOBOconnect (ft)	N/D	Data Logger Serial No.	Batt (H/M/L)	Initials
AP05S	EDW AP05#S	X	301	AP						21629301		
AP07S	EDW AP07#S	X	301	AP						21615552		
AP08	EDW AP08	X	301	AP	6/12/23	10:34	9.31					
AP09	EDW AP09	X	301	AP	6/12/23	10:48	11.40					
APW-01	EDW AW-01	X	301	AP	6/12/23	11:04	6.76					
AW-01	EDW AW-01	X	301	AP						21615144		
AW-05	EDW AW-05	X	301	AP						21615132		
AW-06	EDW AW-06	X	301	AP						21615127		
AW-08	EDW AW-08	X	301	AP						21615722		
AW-09	EDW AW-09	X	301	AP						21615130		
AW-10	EDW AW-10	X	301	AP						21615754		
AW-11	EDW AW-11	X	301	AP						21615129		
AW-14	EDW AW-14	X	301	AP	6/12/23	10:35	7.33					
AW-15	EDW AW-15	X	301	AP						21615761		
AW-15S	EDW AW-15#S	X	301	AP						21629298		
AW-16	EDW AW-16	X	301	AP						21615714		
AW-17	EDW AW-17	X	301	AP						21615756		

SAR-3: Depth to Groundwater Measurements
Plant: EDW
Event: EDW-23Q2 Rev 1

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Well	Unique ID		Date	Time	Measured Depth to Water (ft bmp)	WL from HOBOconnect(ft)	Transducer Y/N	Data Logger Serial No.	Batt (H/M/L)	Initials
AW-18	EDW AW-18	X	301	AP				21615763		
AW-19	EDW AW-19	X	301	AP				21615718		B6
AW-20	EDW AW-20	X	301	AP	6/12/23 10:51	17.61				
AW-21	EDW AW-21	X	301	AP				21615514		
AW-23	EDW AW-23	X	000	Ameren				21615741		
EMW-05	EDW EMW-05	X	301	AP				21615739		
OW-01	EDW OW-01	X	301	AP	6/12/23 10:27	24.39				B6
OW-02	EDW OW-02	X	301	AP	6/12/23 10:37	7.95				B6
PTW-01	EDW PTW-01	X	301	AP	6/12/23 10:24	26.08				B6
PTW-02	EDW PTW-02	X	301	AP	6/12/23 10:39	8.14				B6
XPW01A	EDW XPW01A pore	X	301	AP				21615740		
XPW02	EDW XPW02 pore	X	301	AP				21615752		
XPW03	EDW XPW03 pore	X	301	AP				21629300		
SG-01	EDW YLRIVER	X	301	AP	6/12/23 11:06	441.5		TBD		B6
SG-02	EDW YSG-02	X	301	AP						
SG-03	EDW YSG-03	X	301	AP						

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AP05S	Purge Method:	Submersible
Date:	6/14/23	Start Time:	915
Well Depth (Bottom) From MP:	40.10 ft	Min. Purge Volume:	1.5 Gal / 0
Depth to Water From MP:	5.71 ft	Total Purge Volume:	1.8 Gal / 0
Water Column Length:	— ft	Max Drawdown:	— ft
Well Water Volume:	— Gal / L	Total Drawdown:	0.18 ft

Reading (Units)	Time	Depth	Flow Rate	pH	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	939	5.90	100	6.84	1657	1857	-150	0.08	1918
2	940	5.91	100	6.84	1678	1855	-151	0.06	1983
3	941	5.91	100	6.85	1699	1854	-151	0.06	1901
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

AT 600

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
3	A,V,U 40 mL
1	P, 2.5L HNO ₃
1	P, 500 mL NaOH + ZnAC

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL)
3	A,V, 40 mL, H ₂ SO ₄

Ferrous Iron Over Range/g/L > 6
5/16 21629301

Comments very soft bottom

End DTW 5.89ft Sampler's Signature:

Joseph N Reed

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AP07S Purge Method: submersible
 Date: 6/15/03 Start Time: 945 Finish/Sample Time: 1103

Well Depth (Bottom) From MP: 37.31 ft Min. Purge Volume: 1.5 Gal / L
 Depth to Water From MP: 25.61 ft Total Purge Volume: 1.8 Gal / L
 Water Column Length: 31.70 ft Max Drawdown: ft
 Well Water Volume: 7.08 Gal Total Drawdown: 0.15 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1009	26.20	100	6.86	1404	20.55	64.1	2.22	1240
2	1010	26.20	100	6.83	1423	20.55	63.2	2.15	1003
3	1011	26.20	100	6.82	1439	20.57	61.5	1.99	901
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: A1 600

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign		
Casing locked/secure		
Well cap fits securely.		
Good seal/drainage		
Well has weep holes		

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) <u>1000 mL</u>
1	NaOH + Zn Ac (500 mL)
1	1.5L HNO ₃

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
3	General (P, 250 mL) <u>1000 mL</u>
	TOC

Ferrous Iron 0.247 mg/L

Comments S/N - 21615552

End DTW 25.76 Sampler's Signature: Joseph R. Red

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-01	Purge Method:	<u>Bladder</u>																																																																																						
Date:	<u>6/14/23</u>	Start Time:	<u>1100</u>	Finish/Sample Time:	<u>1235</u>																																																																																				
Well Depth (Bottom) From MP:	<u>ftump</u> ft	Min. Purge Volume:	<u>1.5</u> Gal / L																																																																																						
Depth to Water From MP:	<u>10.02</u> ft	Total Purge Volume:	<u>1.8</u> Gal / L																																																																																						
Water Column Length:	<u> </u> ft	Max Drawdown:	<u> </u> ft																																																																																						
Well Water Volume:	<u> </u> Gal / L	Total Drawdown:	<u>10.74</u> ft																																																																																						
<table border="1"> <thead> <tr> <th>Reading</th> <th>Time</th> <th>Depth</th> <th>Flow Rate</th> <th>pH</th> <th>Spec Cond</th> <th>Temp</th> <th>ORP</th> <th>DO</th> <th>Turb</th> </tr> <tr> <th>(Units)</th> <th></th> <th>ft.</th> <th>ml/min</th> <th>s.u.</th> <th>umhos/cm</th> <th>deg C</th> <th>mV</th> <th>mg/L</th> <th>NTU</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><u>1125</u></td> <td><u>12.55</u></td> <td><u>100</u></td> <td><u>6.81</u></td> <td><u>1231</u></td> <td><u>18.57</u></td> <td><u>-74</u></td> <td><u>0.23</u></td> <td><u>206</u></td> </tr> <tr> <td>2</td> <td><u>1126</u></td> <td><u>12.79</u></td> <td><u>100</u></td> <td><u>6.81</u></td> <td><u>1250</u></td> <td><u>18.40</u></td> <td><u>-73</u></td> <td><u>0.19</u></td> <td><u>196</u></td> </tr> <tr> <td>3</td> <td><u>1127</u></td> <td><u>13.07</u></td> <td><u>100</u></td> <td><u>6.82</u></td> <td><u>1275</u></td> <td><u>18.22</u></td> <td><u>-72</u></td> <td><u>0.15</u></td> <td><u>196</u></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stabilization</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>± 0.2</td> <td>± 3%</td> <td>± 0.2</td> <td>± 20</td> <td>± 10% or 0.2</td> <td>NA</td> </tr> </tbody> </table>										Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb	(Units)		ft.	ml/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU	1	<u>1125</u>	<u>12.55</u>	<u>100</u>	<u>6.81</u>	<u>1231</u>	<u>18.57</u>	<u>-74</u>	<u>0.23</u>	<u>206</u>	2	<u>1126</u>	<u>12.79</u>	<u>100</u>	<u>6.81</u>	<u>1250</u>	<u>18.40</u>	<u>-73</u>	<u>0.19</u>	<u>196</u>	3	<u>1127</u>	<u>13.07</u>	<u>100</u>	<u>6.82</u>	<u>1275</u>	<u>18.22</u>	<u>-72</u>	<u>0.15</u>	<u>196</u>	4										5										Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA
Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb																																																																																
(Units)		ft.	ml/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU																																																																																
1	<u>1125</u>	<u>12.55</u>	<u>100</u>	<u>6.81</u>	<u>1231</u>	<u>18.57</u>	<u>-74</u>	<u>0.23</u>	<u>206</u>																																																																																
2	<u>1126</u>	<u>12.79</u>	<u>100</u>	<u>6.81</u>	<u>1250</u>	<u>18.40</u>	<u>-73</u>	<u>0.19</u>	<u>196</u>																																																																																
3	<u>1127</u>	<u>13.07</u>	<u>100</u>	<u>6.82</u>	<u>1275</u>	<u>18.22</u>	<u>-72</u>	<u>0.15</u>	<u>196</u>																																																																																
4																																																																																									
5																																																																																									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA																																																																																

Field Meter: AT 600

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P, 250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) 1L
3	A,V U 40 mL
1	P 2.5L HNO ₃
1	P, 500 mL, NaOH + Zn-Nc

Filtered	
Qty	Bottles
1	Metals (P, 250mL, HNO ₃)
1	Ammonia (P, 250mL, H ₂ SO ₄)
3	General (P, 500mL)
	A,V, 40 mL, H ₂ SO ₄

Ferrous Iron 6.267 mg/L

Comments 5/n216 15144

End DTW 20.76 Sampler's Signature: Jay R. Reid

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-05	Purge Method:	Dedicated Pump
Date:	6-15-23	Start Time:	09:50
Well Depth (Bottom) From MP:	22.14 ft	Top of Pump	Finish/Sample Time: 11:31
Depth to Water From MP:	09:20 ft	Min. Purge Volume:	1.5 Gal / L
Water Column Length:	12.94 ft	Total Purge Volume:	1.8 Gal / L
Well Water Volume:	2.0 Gal / L	Max Drawdown:	NA ft
		Total Drawdown:	0.13 ft

Reading (Units)	Time	Depth	Flow Rate	pH	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	10:14 09.35	100	6.99	1,540	23.92	99	0.34	+1000	>1000
2	10:15 09.33	100	6.97	1,550	23.97	98	0.28	+1000	>1000
3	10:16 09.32	100	6.96	1,550	23.81	95	0.27	+1000	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	Zn, ZnR, ZnAC
1	2.5% HCl

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL)
1	TOC

Ferrous Iron 3.010 mg/L

Comments NA FD → 09.33

Sampler's Signature: K. Weller

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-06	Purge Method:	<u>Bladder</u>
Date:	<u>6/14/23</u>	Start Time:	<u>0910</u>
Well Depth (Bottom) From MP:	<u>411.82</u> ft	end DW	<u>37.55</u>
Depth to Water From MP:	<u>27.62</u> ft		
Water Column Length:	<u>14.20</u> ft		
Well Water Volume:	<u>8.60</u> Gal <u>L</u>		Total Drawdown: <u>9.93</u> ft
Min. Purge Volume:	<u>1.5</u> Gal <u>L</u>		
Total Purge Volume:	<u>1.9</u> Gal <u>L</u>		
Max Drawdown:	<u>—</u> ft		

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	0928	30.35	100	7.06	1050	16.13	-98	1.50	379
2	0929	30.53	100	7.09	1050	16.15	-98	1.43	370
3	0930	30.60	100	7.09	1030	16.18	-99	1.41	340
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) 1L
3	A,V,U 40 mL
1	P, 2.5L HNO ₃
1	P, 500 mL NaOH + Zn AC

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
3	General (P, 500mL) 1L
	A,V,U 40 mL, H ₂ SO ₄

Ferrous Iron 2.250 mg/L

Comments Transducer # 21615127

Sampler's Signature:

Brenda Dunn

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARD'S POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-08	Purge Method:	Pump		
Date:	6/13/23	Start Time:	1303	Finish/Sample Time:	1424
Well Depth (Bottom) From MP:	Pump ft	Min. Purge Volume:	1.5 Gal		
Depth to Water From MP:	23.92 ft	Total Purge Volume:	1.9 Gal		
Water Column Length:	ft	Max Drawdown:	ft		
Well Water Volume:	Gal / L	Total Drawdown:	ft		

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1320	26.44	100	7.13	1322	19.38	-153	8.14	0.0
2	1321	26.62	100	7.12	1350	19.38	-150	8.15	0.0
3	1322	26.80	100	7.09	1353	19.38	-141	8.16	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: AT 600

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
3	A,V,U 40mL
1	P, 250 mL, HNO ₃
1	P, 500 mL, NaOH+Z, AC

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL)
3	A,V,40mL, H ₂ SO ₄

Ferrous Iron Over Range mg/L

Comments

End 36,56
DTW

Sampler's Signature:

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-09 Purge Method: Dedicated bladder
Date: 6/12/23 Start Time: 1234 Finish/Sample Time: 1405

Well Depth (Bottom) From MP: 47.20 ft Min. Purge Volume: 1.5 Gal / 0
Depth to Water From MP: 26.65 ft Total Purge Volume: 1.8 Gal / 0
Water Column Length: 20.55 ft Max Drawdown: _____ ft
Well Water Volume: 12.45 Gal / L Total Drawdown: _____ ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1256	29.89	100	6.89	1540	16.82	-122	1.86	72.0
2	1257	30.03	100	6.89	1540	16.21	-122	1.79	70.9
3	1258	30.19	100	6.89	1550	16.19	-122	1.71	67.2
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong
 Color: None Slight Mod. Strong
 Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage		✓
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P, 250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) 1L
1	P 2.5 L, HNO ₃
1	P 500 mL, NaOH + Zn Ac
3	A, V, U, 40mL

Filtered	
Qty	Bottles
1	Metals (P, 250mL, HNO ₃)
1	Ammonia (P, 250mL, H ₂ SO ₄)
3	General (P, 500 mL) 1L
	A, V, U, 40mL, H ₂ SO ₄

Ferrous Iron Over Range > 6 mg/L

Comments Transducer # 21615130

Photometer sample was bright orange.

Sampler's Signature:

Brendan Glens

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-10	Purge Method:	JR Submersible Bladder
Date:	6/13/23	Start Time:	1304
Well Depth (Bottom) From MP:	Pump ft	Min. Purge Volume:	1.5 Gal / L
Depth to Water From MP:	1.96 ft	Total Purge Volume:	1.8 Gal / L
Water Column Length:	— ft	Max Drawdown:	— ft
Well Water Volume:	— Gal / L	Total Drawdown:	7.12 ft

Reading (Units)	Time	Depth ft	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1321	3.18	100	6.92	2202	21.40	-153	0.02	1831
2	1322	3.24	100	6.91	2188	21.29	-153	0.02	1002
3	1323	3.31	100	6.91	2174	21.09	-151	0.01	991
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

AT 600

Sample Appearance:

Odor: None Slight Mod. StrongColor: None Slight Mod. StrongTurb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

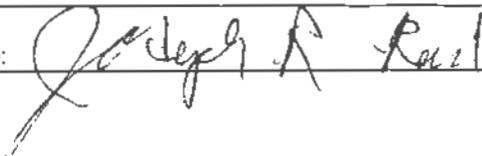
Unfiltered	
Qty	Bottles
3+3	VOAs (C,V, 40mL, HCl)
3+3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3+3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1+1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1+1	General (P, 250 mL) 1000
1+1	2.5 L HNO ₃
1+1	NaOH + ZnAc (500mL)

Filtered	
Qty	Bottles
1+1	Metals (P,250mL, HNO ₃)
1+1	Ammonia (P,250mL, H ₂ SO ₄)
3+3	General (P, 250 mL) 1000
	TOC 40 mL

Ferrous iron Over Range >6 mg/L

Comments Well has a duplicate taken

End DTW
9.08

Sampler's Signature: 

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-11 Purge Method: B Bladder

Date: 6/13/23 Start Time: 1129 Finish/Sample Time: 1254

Well Depth (Bottom) From MP: Pump ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 5.72 ft Total Purge Volume: 1.8 Gal / L

Water Column Length: — ft Max Drawdown: — ft

Well Water Volume: — Gal / L Total Drawdown: 0.01 ft

Reading (Units)	Time	Depth	Flow Rate	pH	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1145	5.79	100	7.05	1716	17.60	-163	0.02	312
2	1146	5.79	100	7.04	1760	17.58	-162	0.07	321
3	1147	5.79	100	7.03	1757	17.58	-160	0.10	329
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

AT 600

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
3	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 25 mL) <u>1000mL</u>
1	<u>2.5 L HNO₃</u>
1	<u>NaOH + ZnAc (300 mL)</u>

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P, 500 mL) <u>1000mL</u>
3	TOC

Ferrous Iron Over Range >6 mg/L

Comments End DTW - 5.73

Sampler's Signature:

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
 EDW-257-301

WELL/SAMPLE POINT	AW-14	Purge Method:	<u>B ladder</u>		
Date:	<u>6/13/23</u>	Start Time:	<u>1000</u>	Finish/Sample Time:	<u>1120</u>
Well Depth (Bottom) From MP:	<u>1010 ft</u>	Min. Purge Volume:	<u>1.5 Gal / L</u>		
Depth to Water From MP:	<u>7.29 ft</u>	Total Purge Volume:	<u>1.8 Gal / L</u>		
Water Column Length:	<u>— ft</u>	Max Drawdown:	<u>— ft</u>		
Well Water Volume:	<u>— Gal / L</u>	Total Drawdown:	<u>11.16 ft</u>		

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	<u>1016</u>	<u>9.50</u>	<u>100</u>	<u>6.88</u>	<u>1873</u>	<u>18.11</u>	<u>-152</u>	<u>0.15</u>	<u>5.77</u>
2	<u>1017</u>	<u>9.65</u>	<u>100</u>	<u>6.88</u>	<u>1874</u>	<u>18.09</u>	<u>-152</u>	<u>0.15</u>	<u>15.05</u>
3	<u>1018</u>	<u>9.80</u>	<u>100</u>	<u>6.88</u>	<u>1875</u>	<u>17.95</u>	<u>-152</u>	<u>0.14</u>	<u>10.41</u>
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: AT 600

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 50 mL) <u>1000 mL</u>
1	NaOH + ZnAc (<u>500 mL</u>)
1	2.5 L HNO ₃

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P, 50 mL) <u>1000 mL</u>
3	TOC

Ferrous Iron Over Range > 6 mg/L

Comments End DTW 18.45

Sampler's Signature:

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-15	Purge Method:	Diluted Pump
Date:	5-12-23	Start Time:	13:07
Well Depth (Bottom) From MP:	PUMP ft	Min. Purge Volume:	1.5 Gal / L
Depth to Water From MP:	08.49 ft	Total Purge Volume:	1.8 Gal / L
Water Column Length:	ft	Max Drawdown:	NA ft
Well Water Volume:	Gal / L	Total Drawdown:	0.08 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	ml/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	13:27	8.54	100	6.63	1,980	17.56	-97	0.38	43.6
2	13:28	8.53	100	6.62	1,980	17.43	-98	0.36	44.1
3	13:29	8.55	100	6.63	1,970	17.39	-101	0.27	46.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

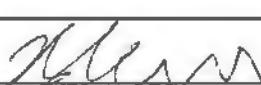
BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) 1L
1	P, 2.5L, HNO ₃
1	P, 500mL, NaOH + ZnAC
3	A,V, 40mL

Comments FO → 08.56

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
3	General (P, 500mL) 1L
	A, V, 40mL, H ₂ SO ₄

Ferrous Iron > 6 mg/L OVERAGE

Sampler's Signature: 

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-15S	Purge Method:	<u>Bladder</u>
Date:	<u>6/12/27</u>	Start Time:	<u>1225</u>
Well Depth (Bottom) From MP:	JR <u>485</u> ft	Min. Purge Volume:	<u>1.5</u> Gal / L
Depth to Water From MP:	<u>9.87</u> ft	Total Purge Volume:	<u>1.8</u> Gal / L
Water Column Length:	<u>—</u> ft	Max Drawdown:	<u>—</u> ft
Well Water Volume:	<u>—</u> Gal / L	Total Drawdown:	<u>5.07</u> ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1245	11.38	100	6.66	1840	15.86	42	6.20	28.1
2	1246	11.40	100	6.66	1830	15.85	40	6.09	23.8
3	1247	11.39	100	6.63	1840	15.85	38	6.00	29.1
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3 + 15	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
3	Organics (A,G,U 1000mL)
3	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
1	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) 1000
1	2.52 HNO ₃
1	NaOH + ZnAc 500mL

15

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P, 500mL) 1000
1	TOC

Ferrous Iron 0.109 mg/L

Comments

Sampler's Signature:

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-16	Purge Method:	bladder
Date:	6/12/23	Start Time:	1445
Well Depth (Bottom) From MP:	100 ft	Min. Purge Volume:	1.5 Gal / L
Depth to Water From MP:	20.30 ft	Total Purge Volume:	1.8 Gal / L
Water Column Length:	— ft	Max Drawdown:	— ft
Well Water Volume:	— Gal / L	Total Drawdown:	5.43 ft

End DTM = 25.73

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1504	25.73	100	6.54	2110	17.90	-100	0.61	91.9
2	1505	25.73	100	6.53	2120	17.90	-100	0.57	80.2
3	1506	25.73	100	6.51	2110	17.88	-101	0.51	77.4
4	—	—	—	—	—	—	—	—	—
5	—	—	—	—	—	—	—	—	—
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Moriba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
3	Organics (A,G,U 1000mL)
3	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
3	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P, 250mL, HNO ₃)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P 250 mL) 1000 mL
1	2.5 L HNO ₃
1	NaOH + ZnAc 500mL

Filtered	
Qty	Bottles
1	Metals (P, 250mL, HNO ₃)
1	Ammonia (P, 250mL, H ₂ SO ₄)
1	General (P 250mL) 1000 mL
1	TOC

Ferrous Iron Over Range >6 mg/L

Comments

Sampler's Signature:

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH BOND - 2015 Edwards Ash Bond

EDWARDS PO
EDW 257 224

Site: Edwards Ash Pond

EDWARDS-P
EDW 257 301

WELL/SAMPLE POINT **AW-17**

Purge Method: Dedicated door

Date: 6/13/23

Start Time: 1050

Finish/Sample Time: 15:00

Well Depth (Bottom) From MP: 56.25 ft

Min. Purge Volume: 5 Gal

Depth to Water From MP: 25.38 ft

Total Purge Volume: 1.9 Gal/P

Water Column Length: 36.87 ft

Max Drawdown: ft

Well Water Volume: 18.69 Gal L

Total Drawdown:  ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1410	26.55	100	7.08	1890	17.20	-111	0.64	198
2	1411	26.61	100	7.06	1910	17.11	-111	0.61	150
3	1412	26.60	100	7.05	1910	17.65	-111	0.59	124
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P, 250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL , 1 L)
3	A,V,U, 40mL
1	P, 2.5L, HNO ₃
1	P, 500mL, NaOH + ZnAC

Ferrous Iron Over Range ^{>6} mg/L

Comments Transchur # 2161575c

Sampler's Signature

Bethan H

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT AW-18 Purge Method: Bladder
 Date: 6/15/22 Start Time: 1044 Finish/Sample Time: 1208

Well Depth (Bottom) From MP: 51.62 ft Min. Purge Volume: 1.5 Gal L
 Depth to Water From MP: 28.14 ft Total Purge Volume: 1.8 Gal L
 Water Column Length: 23.48 ft Max Drawdown: — ft
 Well Water Volume: 4.22 Gal L Total Drawdown: 4.39 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	ml/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1059	29.62	100	6.73	1820	17.68	-102	1.92	235
2	1000	29.71	100	6.73	1810	17.58	-103	1.80	221
3	1101	29.77	100	6.73	1790	17.52	-105	1.73	218
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hach

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) 1L
3	A,V,U, 40mL
1	P, 2.5L, HNO ₃
1	P, 500mL, NaOH+ZnAC

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
3	General (P, 500mL) 1L
	A, V, U, 40mL, H ₂ SO ₄

Ferrous Iron >6 mg/L Over Range

Comments Transducer # 21615763

Sampler's Signature: Brendan Allman

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS-POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-19 Purge Method: Bladder
Date: 6/13/23 Start Time: 12:17 Finish/Sample Time: 1340

Well Depth (Bottom) From MP: 38.34 ft Min. Purge Volume: 1.5 Gal/L
Depth to Water From MP: 14.70 ft Total Purge Volume: 1.8 Gal/L
Water Column Length: 23.64 ft Max Drawdown: _____ ft
Well Water Volume: 14.32 Gal/L Total Drawdown: 3.20 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1235	16.41	100	6.93	1120	17.06	-52	2.31	94.2
2	1236	16.48	100	6.93	1110	17.02	-52	2.36	31.4
3	1237	16.55	100	6.94	1110	16.99	-52	2.33	27.9
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horizon

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3+3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1+1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1+1	General (P, 250 mL)
3+3	A,V, 40mL, U
1+1	P, 2.5L, HNO ₃
1+1	P, 500mL, NaOH + ZnAC

Filtered	
Qty	Bottles
1+1	Metals (P,250mL, HNO ₃)
1+1	Ammonia (P,250mL, H ₂ SO ₄)
1+1	General (P,500mL)
3+3	A,V, 40mL, H ₂ SO ₄

Ferrous Iron > 6 mg/L Over Range

Comments Transducer # 21615715 Field Duge filled here

Sampler's Signature: Barber, Muzan

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS-POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-21	Purge Method:	<u>Bladder</u>		
Date:	<u>6/13/23</u>	Start Time:	<u>1418</u>	Finish/Sample Time:	<u>1540</u>
Well Depth (Bottom) From MP:	<u>33.50</u> ft	Top of Pump		Min. Purge Volume:	<u>15</u> Gal <input checked="" type="checkbox"/>
Depth to Water From MP:	<u>18.48</u> ft			Total Purge Volume:	<u>1.8</u> Gal <input checked="" type="checkbox"/>
Water Column Length:	<u>—</u> ft			Max Drawdown:	<u>—</u> ft
Well Water Volume:	<u>—</u> Gal / L			Total Drawdown:	<u>1.56</u> ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1433	19.49	100	7.10	975	17.51	-22	2.77	6.6
2	1434	19.57	100	7.11	980	17.46	-25	2.71	5.6
3	1435	19.56	100	7.12	983	17.41	-28	2.71	6.4
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horizon

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) <u>1L</u>
3	A,V,V, 40mL
	P, 2.5L, HNO ₃

1 P, 500mL, NaOH + ZnAC

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
3	General (P,500mL)
	A,V,V, 40mL, H ₂ SO ₄

Ferrous Iron

1.445 mg/L

Comments Transducer # 21615514

Sampler's Signature: 

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS-POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT XPW01A

Purge Method: Dedicated Bladder

Date: 6/12/23 Start Time: 1442 Finish/Sample Time: 1532

Well Depth (Bottom) From MP: 36.43 ft Min. Purge Volume: 1.5 Gal/L

Depth to Water From MP: 12.94 ft 13.02 Total Purge Volume: 1.8 Gal/L

Water Column Length: 23.49 ft Max Drawdown: — ft

Well Water Volume: 14.23 Gal/L Total Drawdown: 0.08 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1442	13.12	100	11.85	2120	17.54	-121	2.39	0.0
2	1443	13.12	100	11.86	2120	17.45	-124	2.27	0.0
3	1444	13.12	100	11.86	2110	17.41	-125	2.24	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hori.600

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) 1L
1	P,500mL NaOH + ZnAC
3	A, V, U, 40mL

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) 1L
3	A,V,40mL H ₂ SO ₄

Ferrous Iron ~~Over Range~~ mg/L

0.131

Comments Transducer #21615740

Sampler's Signature: Brendan Dene

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS-POWER PLANT, ASH POND Site: Edwards Ash Pond
 EDW-257-301

WELL/SAMPLE POINT	XPW02	Purge Method:	Dedicated Bladder		
Date:	6/13/23	Start Time:	0955 BG	Finish/Sample Time:	1206
Well Depth (Bottom) From MP:	40.63 ft	1042	Min. Purge Volume:	15	Gal / L
Depth to Water From MP:	22.13 ft		Total Purge Volume:	19	Gal / L
Water Column Length:	18.50 ft		Max Drawdown:		ft
Well Water Volume:	11.20 Gal	L	Total Drawdown:	0.0	ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1059	22.13	100	12.28	5030	17.27	-109	1.44	9.9
2	1100	22.13	100	12.28	6050	17.23	-110	1.37	8.7
3	1101	22.13	100	12.29	8010	17.13	-113	1.30	8.8
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hach

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) 1L
3	A.V 40 mL
1	P, 2.5L, HNO ₃
1	P, 500 mL, NaOH + ZnAC

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P, 500mL) 1L
3	A.V, 40mL, H ₂ SO ₄

Ferrous Iron 6.53 mg/L

Comments Transducer #21615752

Sampler's Signature: Brendan Wilson

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS-POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	<u>XPW03</u>	Purge Method:	<u>Dedicated Bladder</u>
Date:	<u>6/13/23</u>	Start Time:	<u>1215</u>
Well Depth (Bottom) From MP:	<u>31.52</u> ft	Min. Purge Volume:	<u>1.5</u> Gal <u>L</u>
Depth to Water From MP:	<u>18.22</u> ft	Total Purge Volume:	<u>1.8</u> Gal <u>L</u>
Water Column Length:	<u>13.30</u> ft	Max Drawdown:	<u>—</u> ft
Well Water Volume:	<u>8.05</u> Gal <u>L</u>	Total Drawdown:	<u>0.18</u> ft

Reading (Units)	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1233	18.40	100	11.82	2200	17.81	-196	3.72	2.1
2	1234	18.40	102	11.86	2190	17.67	-198	3.68	6.1
3	1235	18.40	100	11.90	2170	17.74	-199	3.66	5.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
3	A,V,U 40mL
1	2.5L P HNO ₃
1	9.500 mL NaOH + Zn AC

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL)
3	A,V 40mL, H ₂ SO ₄

Ferrous Iron 5.521 mg/L

Comments Transducer # 21629300

Sampler's Signature: Brenden Blawie

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Brendan Glennon		Location:	Edwards		
Weather:	65° Mostly Sunny 12 mph SE			Environment:	Gravel	
Multiparameter Water Meter	Make:	AquaMetrics	Model:	6600 SD-S4	Serial Number:	PW26YJD3
Water Level Meter	Make:	Heron	Model:	200 DPMARAT	Serial Number:	19FF2111192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.92	s.u.	±0.1 s.u.	P	N	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Geotech	46K328	Nov 22
ORP	240	mV	±15 mV				InSitu	4GC827	Dec 22
DO (Zero pt)	0.05	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	9.87	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	—	—	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.15	s.u.	±0.15 s.u.	P	N	Geotech	2GC243	Mar-24
pH 7.00b	6.93	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.56	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	1010	µS/cm	±5%	—	—	Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.04	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000	1031	µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	—			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Brendan Glennon	Date:	6/12/23
------------	-----------------	-------	---------

SC 2000
ZG12086
Exp. Nov 23
ORP
3GDA27
Exp. Jan 24
BG 8/9/23

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KYLE LANE			Location:	EDWARDS POWER				
Weather:	59 to 75° sun)			Environment:	DRY				
Multiparameter Water Meter	Make:	HORIBA	Model:	V-5000	Serial Number:	SL91L5961A			
Water Level Meter	Make:	Heaton	Model:	Water level probe	Serial Number:	19FF2202131ML			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	N	N/A	MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	N	N/A	MSI	M082-04	3/25/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	214	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.47	%	97-100%	P	N	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.33	NTU	<2 NTU	P	N	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	11:49		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.92	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	N/A	Geotech	2GC931	Mar-24
pH 10.00b	9.92	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE820	May-24
SC 1000	10.00	µS/cm	±5%	P	N/A	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	N/A			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	14:18			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.04	s.u.	±0.1 s.u.	P	N	N/A	MSI	L344-09	12/14/2023
7.00a	7.08	s.u.	±0.1 s.u.	P	N	N/A	MSI	L343-07	12/9/2023
10.00a	10.08	s.u.	±0.1 s.u.	P	N	N/A	MSI	M082-04	3/25/2024
SC 1000	1020	µS/cm	±5%	P	N	N/A	Ricca	4207N97	Jul-24
DO (Zero pt)	0.06	mg/L	±0.1 mg/L	P	N	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P	N	N/A	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Kyle Lane	Date:	6/12/23
------------	-----------	-------	---------

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND
 EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed			Location:	Edwards power station dusty/ gravel/grass				
Weather:				Environment:					
Multiparameter Water Meter	Make:	AquaTroll	Model:	600	Serial Number:	739449			
Water Level Meter	Make:	Solis	Model:	100	Serial Number:	33459			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC Zero (DI)	1.5	µS/cm	0<25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2011	µS/cm	±5%	P	N		Geotech	1GK928	Nov-22
ORP	2.31	mV	±15 mV	P	N		InSitu	2GC972	Dec-22
DO (Zero pt.)	0.04	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	935		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	N	Geotech	2GC243	Mar-24
pH 7.00b	7.00	s.u.	±0.15 s.u.	P	N	Geotech	2GC931	Mar-24
pH 10.00b	9.98	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24
SC 1000	1009	µS/cm	±5%	P	N	Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1550			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N		MSI	L315-04	11/22/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	N		MSI	L172-33	6/23/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N		MSI	L354-22	1/5/2024
SC 1000	1019	µS/cm	±5%	P	N		Ricca	2108D48	Jul-23
DO (Zero pt.)	0.04	mg/L	±0.1 mg/L	P	N		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt.)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Joseph Reed	Date:	6/13/23
------------	-------------	-------	---------

SG2000
 ZG108L
 Exp. Nov 23
 ORP
 36D921
 Exp. Jun 24
 86
 8/19/23

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Brendan Glennon		Location:	Edwards	
Weather:	69° Mostly Cloudy 12 mph E		Environment:	Gravel Ranch	
Multiparameter Water Meter	Make:	Fliriba	Model:	B052	Serial Number:
Water Level Meter	Make:	Heron	Model:	Dipper T	Serial Number:
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	N
pH 7.00a	7.08	s.u.	±0.1 s.u.		
pH 10.00a	10.02	s.u.	±0.1 s.u.		
SC Zero (DI)	11.12	µS/cm	0<25 µS/cm		
SC 2000	20.80	µS/cm	±5%		
ORP	2411	mV	±15 mV		
DO (Zero pt)	0.07	mg/L	±0.1		
DO (Saturated)	99.1	%	97-100%		
Turbidity (DI)	0.0	NTU	<2 NTU	-	-

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0910		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.10	s.u.	±0.15 s.u.	P	N	Geotech	2GC243	Mar-24
pH 7.00b	7.04	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	10.50	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	10.10	µS/cm	±5%	-	-	Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1540			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.08	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	9.91	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000	10.41	µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	-	-	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Brendan Glennon	Date:	6/13/23
------------	-----------------	-------	---------

6/21

SC 2000

2G1LD8L0

Nov. 23

Ln 7/11

ORP

3G0927

Exp Jan 24

8G 8/4/23

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Brendan Glennon		Location:	Edwards	
Weather:	70° Partly Cloudy 4 mph S		Environment:	Gravel Road	
Multiparameter Water Meter	Make:	Horiba	Model:	D-5000	Serial Number:
Water Level Meter	Make:	Heron	Model:	200ft.	Serial Number:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	5.94	s.u.	±0.1 s.u.	P	N	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.96	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	18	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%				Geotech	16K328	Nov-22
ORP	235	mV	±15 mV				InSitu	2GC827	Dec-22
DO (Zero pt)	0.0K	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.1	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	—	—		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	6820		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.10	s.u.	±0.15 s.u.	P	N	Geotech	2GC243	Mar-24
pH 7.00b	7.06	s.u.	±0.15 s.u.	I	I	Geotech	2GC931	Mar-24
pH 10.00b	9.91	s.u.	±0.15 s.u.	—	—	Geotech	2GE820	May-24
SC 1000	981	µS/cm	±5%	—	—	Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1545			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.97	s.u.	±0.1 s.u.	P	N	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.07	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000	1014	µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	—	—		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Brendan Glennon	Date:	5/13/23
			14 BGZ

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed		Location:	Edwards Power					
Weather:	70° Part Cloudy Wind Y mph		Environment:	Dusty Gravel / grass					
Multiparameter Water Meter	Make:	AquaTroll	Model:	600	Serial Number:				
Water Level Meter	Make:	Salinst	Model:	101	Serial Number:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC Zero (DI)	4.5	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	226	µS/cm	±5%				Geotech	16K228	Nov-22
ORP	226	mV	±15 mV				InSitu	2GC827	Dec-22
DO (Zero pt)	0.04	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.1	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

23°C
SC 2000
2GC827
Nov. 23
LM 7/18
ORP
3G0927
Exp. Jan-24
B67 8/9/23

ICV (Initial Calibration Verification)					Time:	855		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N	Geotech	2GC243	Mar-24
pH 7.00b	7.00	s.u.	±0.15 s.u.	P	N	Geotech	2GC931	Mar-24
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24
SC 1000	10.22	µS/cm	±5%	P	N	Ricca	4205H64	May-24

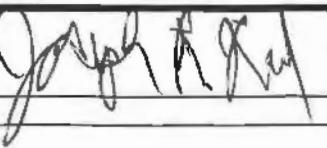
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1600			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N		MSI	L315-04	11/22/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	N		MSI	L172-33	6/23/2023
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	N		MSI	L354-22	1/5/2024
SC 1000	10.09	µS/cm	±5%	P	N		Ricca	2108D48	Jul-23
DO (Zero pt)	0.07	mg/L	±0.1 mg/L	P	N		Macron	#000228049	8/26/2025
Turbidity (DI)	0.1	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:			Date:	6/14/23

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Mike Lark			Location:	EDWARDS Power				
Weather:	55° to 91° SWIN			Environment:	Dry				
Multiparameter Water Meter	Make:	HORIBA	Model:	J-5000	Serial Number:	JL9K39HA			
Water Level Meter	Make:	HORIBA	Model:	WATER TAPER	Serial Number:	10FF2202131M2			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	21.09	s.u.	±0.1 s.u.	P	Na	Na	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	28.10	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	116	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.03	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.61	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	3	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	09:18			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	Na	Geotech	2GE870	Mar-24	
pH 7.00b	6.94	s.u.	±0.15 s.u.		Na	Geotech	2GC931	Mar-24	
pH 10.00b	9.96	s.u.	±0.15 s.u.		Na	Geotech	2GE820	May-24	
SC 1000	9.90	µS/cm	±5%		Na	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

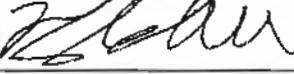
CCV (Continued Calibration Verification):					Time:	Na			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	Na	MSI	L344-09	12/14/2023	
pH 7.00a	7.01	s.u.	±0.1 s.u.		Na	MSI	L343-07	12/9/2023	
pH 10.00a	10.01	s.u.	±0.1 s.u.		Na	MSI	M082-04	3/25/2024	
SC 1000	1000	µS/cm	±5%		Na	Ricca	4207N97	Jul-24	
DO (Zero pt)	0.01	mg/L	±0.1 mg/L		Na	Macron	#000228049	8/26/2025	
Turbidity (DI)	0	NTU	<2 NTU		Na	Pace Labs	N/A (DI)	N/A (DI)	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	13:29			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.00	s.u.	±0.1 s.u.	P	Na	Na	MSI	L344-09	12/14/2023
7.00a	7.01	s.u.	±0.1 s.u.		Na	Na	MSI	L343-07	12/9/2023
10.00a	10.01	s.u.	±0.1 s.u.		Na	Na	MSI	M082-04	3/25/2024
SC 1000	1000	µS/cm	±5%		Na	Na	Ricca	4207N97	Jul-24
DO (Zero pt)	0.01	mg/L	±0.1 mg/L		Na	Na	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU		Na	Na	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Na

Signature:		Date:	6/15-23
------------	---	-------	---------

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed		Location:	Edward Power Station					
Weather:	75-91°F Sunny Wind 4-8 mph		Environment:	Gravel Dusty / grassy					
Multiparameter Water Meter	Make:	Aquatrol 11	Model:	600	Serial Number:	739449			
Water Level Meter	Make:	Solinst	Model:	101	Serial Number:	TR 739449 33459			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	± 0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	7.04	s.u.	± 0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.03	s.u.	± 0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	1.1	$\mu\text{s}/\text{cm}$	0<25 $\mu\text{s}/\text{cm}$				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2.002.1	$\mu\text{s}/\text{cm}$	$\pm 5\%$				Geotech	3GA1071	Jan-24
ORP	229.1	mV	± 15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	± 0.1				Macron	#000228049	8/26/2025
DO (Saturated)	9.7.9	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	915		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	± 0.15 s.u.	P	N	Geotech	2GE870	Mar-24
pH 7.00b	7.02	s.u.	± 0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	10.00	s.u.	± 0.15 s.u.			Geotech	2GE820	May-24
SC 1000	9.91	$\mu\text{s}/\text{cm}$	$\pm 5\%$			Ricca	4207N97	Jul-24

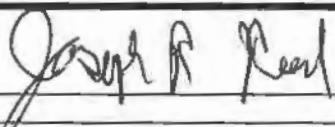
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1435			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	± 0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	± 0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.05	s.u.	± 0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	10.11	$\mu\text{s}/\text{cm}$	$\pm 5\%$				Ricca	4207N97	Jul-24
DO (Zero pt)	0.05	mg/L	± 0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	± 0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	± 0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	± 0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		$\mu\text{s}/\text{cm}$	$\pm 5\%$				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	± 0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:			Date:	6/15/23
------------	---	--	-------	---------



October 12, 2023

Brian Voelker
Vistra - Edwards
604 Pierce Boulevard
O'Fallon, IL 62269

Dear Brian Voelker:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

A handwritten signature in black ink that reads "Diane Billings".

Diane Billings
Project Manager



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GH04348

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH04366

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH04553

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH04572

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH04842

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH04878

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH05495

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH05497

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH05632

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH05671

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



ANALYTICAL RESULTS

Sample: GH04348-01

Sampled: 08/21/23 14:28

Name: AW-16

Received: 08/22/23 07:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	51	mg/L	Q4	08/22/23 13:37	10	10	08/22/23 19:26	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		08/22/23 12:39	1	1.0	08/22/23 18:28	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	25.21	Feet		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Dissolved oxygen, Field	0.12	mg/L		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Oxidation Reduction Potential	-120	mV		08/21/23 14:28	1	-500	08/21/23 14:28	FIELD	Field*
pH, Field Measured	6.96	pH Units		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Specific Conductance, Field Measured	1970	umhos/cm		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Temperature, Field Measured	20.8	°C		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Turbidity, Field Measured	9.70	NTU		08/21/23 14:28	1	0.00	08/21/23 14:28	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	< 0.250	mg/L		08/29/23 17:13	1	0.250	08/29/23 17:13	TTH	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1200	mg/L		08/24/23 10:01	1	26	08/24/23 12:08	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 11:20	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:20	TJJ	EPA 6020A
Barium	1100	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:20	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:20	TJJ	EPA 6020A
Boron	440	ug/L		08/28/23 08:52	5	10	08/31/23 08:03	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:20	TJJ	EPA 6020A
Calcium	140	mg/L		08/28/23 08:52	5	0.20	08/29/23 11:20	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 11:20	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/28/23 08:52	5	2.0	08/29/23 11:20	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:20	TJJ	EPA 6020A
Mercury	0.39	ug/L		08/28/23 08:52	5	0.20	08/29/23 11:20	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:20	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:20	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:20	TJJ	EPA 6020A
Lithium	32	ug/L		08/28/23 08:52	1	20	08/29/23 10:17	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04348-02

Sampled: 08/21/23 16:01

Name: AW-17

Received: 08/22/23 07:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	54	mg/L		08/22/23 14:16	10	10	08/22/23 20:43	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		08/22/23 13:57	1	1.0	08/22/23 20:24	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	26.14	Feet		08/21/23 16:01	1		08/21/23 16:01	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		08/21/23 16:01	1		08/21/23 16:01	FIELD	Field*
Oxidation Reduction Potential	-106	mV		08/21/23 16:01	1	-500	08/21/23 16:01	FIELD	Field*
pH, Field Measured	6.95	pH Units		08/21/23 16:01	1		08/21/23 16:01	FIELD	Field*
Specific Conductance, Field Measured	1620	umhos/cm		08/21/23 16:01	1		08/21/23 16:01	FIELD	Field*
Temperature, Field Measured	25.1	°C		08/21/23 16:01	1		08/21/23 16:01	FIELD	Field*
Turbidity, Field Measured	140	NTU		08/21/23 16:01	1	0.00	08/21/23 16:01	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	< 0.250	mg/L		08/29/23 17:15	1	0.250	08/29/23 17:15	TTH	SM 4500F C 1997
Solids - total dissolved solids (TDS)	930	mg/L		08/24/23 10:01	1	26	08/24/23 12:08	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 11:31	TJJ	EPA 6020A
Arsenic	3.2	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:31	TJJ	EPA 6020A
Barium	1000	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:31	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:31	TJJ	EPA 6020A
Boron	410	ug/L		08/28/23 08:52	5	10	08/31/23 08:11	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:31	TJJ	EPA 6020A
Calcium	110	mg/L		08/28/23 08:52	5	0.20	08/29/23 11:31	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 11:31	TJJ	EPA 6020A
Cobalt	2.2	ug/L		08/28/23 08:52	5	2.0	08/29/23 11:31	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:31	TJJ	EPA 6020A
Mercury	0.41	ug/L		08/28/23 08:52	5	0.20	08/29/23 11:31	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:31	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:31	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:31	TJJ	EPA 6020A
Lithium	34	ug/L		08/28/23 08:52	1	20	08/29/23 10:29	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04348-04
Name: AW 16 DUP
Matrix: Ground Water - Field Duplicate

Sampled: 08/21/23 14:28
Received: 08/22/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	50	mg/L		08/22/23 16:31	10	10	08/22/23 22:20	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		08/22/23 15:33	1	1.0	08/22/23 22:00	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	25.21	Feet		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Dissolved oxygen, Field	0.12	mg/L		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Oxidation Reduction Potential	-120	mV		08/21/23 14:28	1	-500	08/21/23 14:28	FIELD	Field*
pH, Field Measured	6.96	pH Units		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Specific Conductance, Field Measured	1970	umhos/cm		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Temperature, Field Measured	20.8	°C		08/21/23 14:28	1		08/21/23 14:28	FIELD	Field*
Turbidity, Field Measured	9.70	NTU		08/21/23 14:28	1	0.00	08/21/23 14:28	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	< 0.250	mg/L		08/29/23 17:17	1	0.250	08/29/23 17:17	TTH	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1200	mg/L		08/24/23 10:01	1	26	08/24/23 12:08	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 11:39	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:39	TJJ	EPA 6020A
Barium	1100	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:39	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:39	TJJ	EPA 6020A
Boron	440	ug/L		08/28/23 08:52	5	10	08/31/23 08:17	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:39	TJJ	EPA 6020A
Calcium	140	mg/L		08/28/23 08:52	5	0.20	08/29/23 11:39	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 11:39	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/28/23 08:52	5	2.0	08/29/23 11:39	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:39	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 11:39	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:39	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:39	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:39	TJJ	EPA 6020A
Lithium	34	ug/L		08/28/23 08:52	1	20	08/29/23 10:43	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04553-01

Sampled: 08/22/23 14:28

Name: AW-01

Received: 08/22/23 16:40

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	12	mg/L	Q3	08/23/23 12:22	5	5.0	08/23/23 12:22	CRD	EPA 300.0 REV 2.1
Sulfate	52	mg/L		08/25/23 02:39	10	10	08/25/23 02:39	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	10.28	Feet		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Dissolved oxygen, Field	0.51	mg/L		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Oxidation Reduction Potential	-95.0	mV		08/22/23 14:28	1	-500	08/22/23 14:28	FIELD	Field*
pH, Field Measured	6.64	pH Units		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Specific Conductance, Field Measured	1450	umhos/cm		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Temperature, Field Measured	24.7	°C		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Turbidity, Field Measured	8.50	NTU		08/22/23 14:28	1	0.00	08/22/23 14:28	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	0.280	mg/L		08/30/23 18:00	1	0.250	08/30/23 18:00	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	830	mg/L		08/24/23 10:01	1	26	08/24/23 12:08	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 11:47	TJJ	EPA 6020A
Arsenic	5.1	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:47	TJJ	EPA 6020A
Barium	130	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:47	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:47	TJJ	EPA 6020A
Boron	92	ug/L		08/28/23 08:52	5	10	08/31/23 08:23	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:47	TJJ	EPA 6020A
Calcium	190	mg/L		08/28/23 08:52	5	0.20	08/29/23 11:47	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 11:47	TJJ	EPA 6020A
Cobalt	3.8	ug/L		08/28/23 08:52	5	2.0	08/29/23 11:47	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:47	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 11:47	TJJ	EPA 6020A
Molybdenum	4.1	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:47	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:47	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 11:47	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/28/23 08:52	1	20	08/29/23 10:53	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04553-02

Sampled: 08/22/23 12:57

Name: AW-19

Received: 08/22/23 16:40

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	79	mg/L		08/23/23 13:20	10	10	08/23/23 13:20	CRD	EPA 300.0 REV 2.1
Sulfate	55	mg/L		08/23/23 13:20	10	10	08/23/23 13:20	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	14.1	Feet		08/22/23 12:57	1		08/22/23 12:57	FIELD	Field*
Dissolved oxygen, Field	0.96	mg/L		08/22/23 12:57	1		08/22/23 12:57	FIELD	Field*
Oxidation Reduction Potential	-57.0	mV		08/22/23 12:57	1	-500	08/22/23 12:57	FIELD	Field*
pH, Field Measured	6.49	pH Units		08/22/23 12:57	1		08/22/23 12:57	FIELD	Field*
Specific Conductance, Field Measured	1050	umhos/cm		08/22/23 12:57	1		08/22/23 12:57	FIELD	Field*
Temperature, Field Measured	20.0	°C		08/22/23 12:57	1		08/22/23 12:57	FIELD	Field*
Turbidity, Field Measured	24.6	NTU		08/22/23 12:57	1	0.00	08/22/23 12:57	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	0.313	mg/L		08/30/23 18:04	1	0.250	08/30/23 18:04	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	680	mg/L		08/24/23 10:01	1	26	08/24/23 12:08	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 12:09	TJJ	EPA 6020A
Arsenic	12	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:09	TJJ	EPA 6020A
Barium	200	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:09	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/31/23 08:51	TJJ	EPA 6020A
Boron	2900	ug/L		08/28/23 08:52	5	10	08/31/23 08:51	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:09	TJJ	EPA 6020A
Calcium	120	mg/L		08/28/23 08:52	5	0.20	08/29/23 12:09	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 12:09	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/28/23 08:52	5	2.0	08/29/23 12:09	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:09	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 12:09	TJJ	EPA 6020A
Molybdenum	3.6	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:09	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:09	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:09	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/28/23 08:52	1	20	08/29/23 10:57	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04553-04

Sampled: 08/22/23 16:04

Name: AW-21

Received: 08/22/23 16:40

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	83	mg/L		08/23/23 15:35	50	50	08/23/23 15:35	CRD	EPA 300.0 REV 2.1
Fluoride	0.303	mg/L		08/23/23 14:18	1	0.250	08/23/23 14:18	CRD	EPA 300.0 REV 2.1
Sulfate	280	mg/L		08/23/23 15:35	50	50	08/23/23 15:35	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	17.47	Feet		08/22/23 16:04	1		08/22/23 16:04	FIELD	Field*
Dissolved oxygen, Field	7.7	mg/L		08/22/23 16:04	1		08/22/23 16:04	FIELD	Field*
Oxidation Reduction Potential	130	mV		08/22/23 16:04	1	-500	08/22/23 16:04	FIELD	Field*
pH, Field Measured	6.53	pH Units		08/22/23 16:04	1		08/22/23 16:04	FIELD	Field*
Specific Conductance, Field Measured	1050	umhos/cm		08/22/23 16:04	1		08/22/23 16:04	FIELD	Field*
Temperature, Field Measured	18.6	°C		08/22/23 16:04	1		08/22/23 16:04	FIELD	Field*
Turbidity, Field Measured	15.0	NTU		08/22/23 16:04	1	0.00	08/22/23 16:04	FIELD	Field*
General Chemistry - PIA									
Solids - total dissolved solids (TDS)	820	mg/L		08/24/23 10:01	1	26	08/24/23 12:08	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 12:16	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:16	TJJ	EPA 6020A
Barium	58	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:16	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/31/23 16:22	TJJ	EPA 6020A
Boron	12000	ug/L		08/28/23 08:52	100	200	08/31/23 08:57	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:16	TJJ	EPA 6020A
Calcium	120	mg/L		08/28/23 08:52	5	0.20	08/29/23 12:16	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 12:16	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/28/23 08:52	5	2.0	08/29/23 12:16	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:16	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 12:16	TJJ	EPA 6020A
Molybdenum	29	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:16	TJJ	EPA 6020A
Selenium	3.8	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:16	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:16	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/28/23 08:52	1	20	08/29/23 11:12	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04553-07
Name: AW01 DUP
Matrix: Ground Water - Field Duplicate

Sampled: 08/22/23 14:28
Received: 08/22/23 16:40

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	9.9	mg/L		08/23/23 17:31	5	5.0	08/23/23 17:31	CRD	EPA 300.0 REV 2.1
Sulfate	51	mg/L		08/23/23 17:51	50	50	08/23/23 17:51	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	10.28	Feet		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Dissolved oxygen, Field	0.51	mg/L		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Oxidation Reduction Potential	-95.0	mV		08/22/23 14:28	1	-500	08/22/23 14:28	FIELD	Field*
pH, Field Measured	6.64	pH Units		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Specific Conductance, Field Measured	1450	umhos/cm		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Temperature, Field Measured	24.7	°C		08/22/23 14:28	1		08/22/23 14:28	FIELD	Field*
Turbidity, Field Measured	8.50	NTU		08/22/23 14:28	1	0.00	08/22/23 14:28	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	0.282	mg/L		08/30/23 18:07	1	0.250	08/30/23 18:07	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	820	mg/L		08/24/23 10:01	1	26	08/24/23 12:08	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 12:36	TJJ	EPA 6020A
Arsenic	5.2	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:36	TJJ	EPA 6020A
Barium	130	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:36	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/31/23 09:06	TJJ	EPA 6020A
Boron	89	ug/L		08/28/23 08:52	5	10	08/31/23 09:06	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:36	TJJ	EPA 6020A
Calcium	190	mg/L		08/28/23 08:52	5	0.20	08/29/23 12:36	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 12:36	TJJ	EPA 6020A
Cobalt	3.9	ug/L		08/28/23 08:52	5	2.0	08/29/23 12:36	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:36	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 12:36	TJJ	EPA 6020A
Molybdenum	3.4	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:36	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:36	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:36	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/28/23 08:52	1	20	08/29/23 11:25	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04553-08

Sampled: 08/22/23 11:11

Name: AW-18

Received: 08/22/23 16:40

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	91	mg/L		08/25/23 02:20	25	25	08/25/23 02:20	TMS	EPA 300.0 REV 2.1
Sulfate	6.9	mg/L		08/23/23 18:10	1	1.0	08/23/23 18:10	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	27.97	Feet		08/22/23 11:11	1		08/22/23 11:11	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		08/22/23 11:11	1		08/22/23 11:11	FIELD	Field*
Oxidation Reduction Potential	-119	mV		08/22/23 11:11	1	-500	08/22/23 11:11	FIELD	Field*
pH, Field Measured	6.59	pH Units		08/22/23 11:11	1		08/22/23 11:11	FIELD	Field*
Specific Conductance, Field Measured	1730	umhos/cm		08/22/23 11:11	1		08/22/23 11:11	FIELD	Field*
Temperature, Field Measured	19.0	°C		08/22/23 11:11	1		08/22/23 11:11	FIELD	Field*
Turbidity, Field Measured	29.3	NTU		08/22/23 11:11	1	0.00	08/22/23 11:11	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	< 0.250	mg/L		08/30/23 18:09	1	0.250	08/30/23 18:09	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	850	mg/L		08/24/23 10:01	1	26	08/24/23 12:08	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 12:40	TJJ	EPA 6020A
Arsenic	2.6	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:40	TJJ	EPA 6020A
Barium	1300	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:40	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/31/23 09:08	TJJ	EPA 6020A
Boron	1200	ug/L		08/28/23 08:52	5	10	08/31/23 09:08	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:40	TJJ	EPA 6020A
Calcium	130	mg/L		08/28/23 08:52	5	0.20	08/29/23 12:40	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 12:40	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/28/23 08:52	5	2.0	08/29/23 12:40	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:40	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 12:40	TJJ	EPA 6020A
Molybdenum	3.2	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:40	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:40	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:40	TJJ	EPA 6020A
Lithium	25	ug/L		08/28/23 08:52	1	20	08/29/23 11:34	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04842-01

Sampled: 08/23/23 13:04

Name: AP05S

Received: 08/23/23 16:34

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	41	mg/L	Q4	08/24/23 11:29	10	10	08/24/23 11:29	TMS	EPA 300.0 REV 2.1
Sulfate	5.6	mg/L	Q3	08/24/23 10:31	1	1.0	08/24/23 10:31	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	6.07	Feet		08/23/23 13:04	1		08/23/23 13:04	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		08/23/23 13:04	1		08/23/23 13:04	FIELD	Field*
Oxidation Reduction Potential	-133	mV		08/23/23 13:04	1	-500	08/23/23 13:04	FIELD	Field*
pH, Field Measured	6.88	pH Units		08/23/23 13:04	1		08/23/23 13:04	FIELD	Field*
Specific Conductance, Field Measured	1490	umhos/cm		08/23/23 13:04	1		08/23/23 13:04	FIELD	Field*
Temperature, Field Measured	26.7	°C		08/23/23 13:04	1		08/23/23 13:04	FIELD	Field*
Turbidity, Field Measured	39.7	NTU		08/23/23 13:04	1	0.00	08/23/23 13:04	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	< 0.250	mg/L		08/30/23 18:15	1	0.250	08/30/23 18:15	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	890	mg/L	B2, M	08/25/23 10:34	1	26	08/25/23 11:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 12:43	TJJ	EPA 6020A
Arsenic	1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:43	TJJ	EPA 6020A
Barium	830	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:43	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/31/23 09:11	TJJ	EPA 6020A
Boron	320	ug/L		08/28/23 08:52	5	10	08/31/23 09:11	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:43	TJJ	EPA 6020A
Calcium	100	mg/L		08/28/23 08:52	5	0.20	08/29/23 12:43	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 12:43	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/28/23 08:52	5	2.0	08/29/23 12:43	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:43	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 12:43	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:43	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:43	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 12:43	TJJ	EPA 6020A
Lithium	27	ug/L		08/28/23 08:52	1	20	08/29/23 11:38	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04842-03

Sampled: 08/23/23 15:53

Name: AW-14

Received: 08/23/23 16:34

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	24	mg/L		08/24/23 13:06	5	5.0	08/24/23 13:06	TMS	EPA 300.0 REV 2.1
Sulfate	1.8	mg/L		08/24/23 12:46	1	1.0	08/24/23 12:46	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	7.06	Feet		08/23/23 15:53	1		08/23/23 15:53	FIELD	Field*
Dissolved oxygen, Field	1.1	mg/L		08/23/23 15:53	1		08/23/23 15:53	FIELD	Field*
Oxidation Reduction Potential	-132	mV		08/23/23 15:53	1	-500	08/23/23 15:53	FIELD	Field*
pH, Field Measured	6.99	pH Units		08/23/23 15:53	1		08/23/23 15:53	FIELD	Field*
Specific Conductance, Field Measured	1720	umhos/cm		08/23/23 15:53	1		08/23/23 15:53	FIELD	Field*
Temperature, Field Measured	23.2	°C		08/23/23 15:53	1		08/23/23 15:53	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		08/23/23 15:53	1	0.00	08/23/23 15:53	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	< 0.250	mg/L		08/30/23 18:17	1	0.250	08/30/23 18:17	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	960	mg/L	B2	08/25/23 10:34	1	26	08/25/23 11:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 13:14	TJJ	EPA 6020A
Arsenic	5.2	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:14	TJJ	EPA 6020A
Barium	840	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:14	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/31/23 09:17	TJJ	EPA 6020A
Boron	180	ug/L		08/28/23 08:52	5	10	08/31/23 09:17	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:14	TJJ	EPA 6020A
Calcium	170	mg/L		08/28/23 08:52	5	0.20	08/29/23 13:14	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 13:14	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/28/23 08:52	5	2.0	08/29/23 13:14	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:14	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 13:14	TJJ	EPA 6020A
Molybdenum	1.4	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:14	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:14	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:14	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/28/23 08:52	1	20	08/29/23 11:46	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04842-04

Sampled: 08/23/23 12:55

Name: AW-15

Received: 08/23/23 16:34

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	34	mg/L		08/24/23 14:23	10	10	08/24/23 14:23	TMS	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		08/24/23 13:25	1	1.0	08/24/23 13:25	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	9	Feet		08/23/23 12:55	1		08/23/23 12:55	FIELD	Field*
Dissolved oxygen, Field	0.45	mg/L		08/23/23 12:55	1		08/23/23 12:55	FIELD	Field*
Oxidation Reduction Potential	-140	mV		08/23/23 12:55	1	-500	08/23/23 12:55	FIELD	Field*
pH, Field Measured	6.78	pH Units		08/23/23 12:55	1		08/23/23 12:55	FIELD	Field*
Specific Conductance, Field Measured	2050	umhos/cm		08/23/23 12:55	1		08/23/23 12:55	FIELD	Field*
Temperature, Field Measured	19.5	°C		08/23/23 12:55	1		08/23/23 12:55	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		08/23/23 12:55	1	0.00	08/23/23 12:55	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	< 0.250	mg/L		08/30/23 18:18	1	0.250	08/30/23 18:18	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1100	mg/L	B2	08/25/23 10:34	1	26	08/25/23 11:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 13:18	TJJ	EPA 6020A
Arsenic	1.3	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:18	TJJ	EPA 6020A
Barium	1800	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:18	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/31/23 09:40	TJJ	EPA 6020A
Boron	370	ug/L		08/28/23 08:52	5	10	08/31/23 09:40	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:18	TJJ	EPA 6020A
Calcium	140	mg/L		08/28/23 08:52	5	0.20	08/29/23 13:18	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 13:18	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/28/23 08:52	5	2.0	08/29/23 13:18	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:18	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 13:18	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:18	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:18	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:18	TJJ	EPA 6020A
Lithium	28	ug/L		08/28/23 08:52	1	20	08/29/23 11:50	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH04842-05

Sampled: 08/23/23 14:25

Name: AW-15S

Received: 08/23/23 16:34

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	31	mg/L		08/24/23 15:02	10	10	08/24/23 15:02	TMS	EPA 300.0 REV 2.1
Sulfate	570	mg/L		08/24/23 15:22	100	100	08/24/23 15:22	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	9.75	Feet		08/23/23 14:25	1		08/23/23 14:25	FIELD	Field*
Dissolved oxygen, Field	0.35	mg/L		08/23/23 14:25	1		08/23/23 14:25	FIELD	Field*
Oxidation Reduction Potential	-29.0	mV		08/23/23 14:25	1	-500	08/23/23 14:25	FIELD	Field*
pH, Field Measured	6.92	pH Units		08/23/23 14:25	1		08/23/23 14:25	FIELD	Field*
Specific Conductance, Field Measured	1730	umhos/cm		08/23/23 14:25	1		08/23/23 14:25	FIELD	Field*
Temperature, Field Measured	25.1	°C		08/23/23 14:25	1		08/23/23 14:25	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		08/23/23 14:25	1	0.00	08/23/23 14:25	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	0.284	mg/L		08/30/23 18:21	1	0.250	08/30/23 18:21	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1400	mg/L	B2	08/25/23 10:34	1	26	08/25/23 11:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/28/23 08:52	5	3.0	08/29/23 13:22	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:22	TJJ	EPA 6020A
Barium	87	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:22	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/31/23 16:28	TJJ	EPA 6020A
Boron	5700	ug/L		08/28/23 08:52	20	40	08/31/23 09:42	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:22	TJJ	EPA 6020A
Calcium	270	mg/L		08/28/23 08:52	5	0.20	08/29/23 13:22	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/28/23 08:52	5	4.0	08/29/23 13:22	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/28/23 08:52	5	2.0	08/29/23 13:22	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:22	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/28/23 08:52	5	0.20	08/29/23 13:22	TJJ	EPA 6020A
Molybdenum	2.7	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:22	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:22	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/28/23 08:52	5	1.0	08/29/23 13:22	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/28/23 08:52	1	20	08/29/23 11:59	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH05495-01

Sampled: 08/28/23 10:47

Name: AP07S

Received: 08/29/23 07:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	83	mg/L	Q4	08/29/23 12:19	50	50	08/29/23 12:19	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		08/29/23 11:21	1	0.250	08/29/23 11:21	CRD	EPA 300.0 REV 2.1
Sulfate	240	mg/L	Q4	08/29/23 12:19	50	50	08/29/23 12:19	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.19	Feet		08/28/23 10:47	1		08/28/23 10:47	FIELD	Field*
Dissolved oxygen, Field	9.8	mg/L		08/28/23 10:47	1		08/28/23 10:47	FIELD	Field*
Oxidation Reduction Potential	44.0	mV		08/28/23 10:47	1	-500	08/28/23 10:47	FIELD	Field*
pH, Field Measured	6.95	pH Units		08/28/23 10:47	1		08/28/23 10:47	FIELD	Field*
Specific Conductance, Field Measured	1420	umhos/cm		08/28/23 10:47	1		08/28/23 10:47	FIELD	Field*
Temperature, Field Measured	20.6	°C		08/28/23 10:47	1		08/28/23 10:47	FIELD	Field*
Turbidity, Field Measured	101	NTU		08/28/23 10:47	1	0.00	08/28/23 10:47	FIELD	Field*
General Chemistry - PIA									
Solids - total dissolved solids (TDS)	880	mg/L		08/30/23 11:25	1	26	08/30/23 14:07	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		08/31/23 08:50	5	3.0	09/06/23 14:56	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 14:56	TJJ	EPA 6020A
Barium	73	ug/L		08/31/23 08:50	5	1.0	09/06/23 14:56	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 14:56	TJJ	EPA 6020A
Boron	9400	ug/L		08/31/23 08:50	20	40	09/08/23 08:16	TJJ	EPA 6020A
Cadmium	1.3	ug/L		08/31/23 08:50	5	1.0	09/06/23 14:56	TJJ	EPA 6020A
Calcium	160	mg/L	Q4	08/31/23 08:50	5	0.20	09/06/23 14:56	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/31/23 08:50	5	4.0	09/06/23 14:56	TJJ	EPA 6020A
Cobalt	2.9	ug/L		08/31/23 08:50	5	2.0	09/06/23 14:56	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 14:56	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/31/23 08:50	5	0.20	09/06/23 14:56	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		08/31/23 08:50	5	1.0	09/06/23 14:56	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 14:56	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 14:56	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/31/23 08:50	1	20	09/06/23 09:10	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH05495-02

Sampled: 08/28/23 14:49

Name: AW-05

Received: 08/29/23 07:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	78	mg/L		08/29/23 12:58	50	50	08/29/23 12:58	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		08/29/23 12:38	1	0.250	08/29/23 12:38	CRD	EPA 300.0 REV 2.1
Sulfate	460	mg/L		08/29/23 12:58	50	50	08/29/23 12:58	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	8.93	Feet		08/28/23 14:49	1		08/28/23 14:49	FIELD	Field*
Dissolved oxygen, Field	0.49	mg/L		08/28/23 14:49	1		08/28/23 14:49	FIELD	Field*
Oxidation Reduction Potential	26.0	mV		08/28/23 14:49	1	-500	08/28/23 14:49	FIELD	Field*
pH, Field Measured	7.01	pH Units		08/28/23 14:49	1		08/28/23 14:49	FIELD	Field*
Specific Conductance, Field Measured	1730	umhos/cm		08/28/23 14:49	1		08/28/23 14:49	FIELD	Field*
Temperature, Field Measured	21.4	°C		08/28/23 14:49	1		08/28/23 14:49	FIELD	Field*
Turbidity, Field Measured	697	NTU		08/28/23 14:49	1	0.00	08/28/23 14:49	FIELD	Field*
<u>General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	1200	mg/L		08/30/23 11:25	1	26	08/30/23 14:07	LAL2	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/31/23 08:50	5	3.0	09/06/23 15:08	TJJ	EPA 6020A
Arsenic	3.3	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:08	TJJ	EPA 6020A
Barium	130	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:08	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:08	TJJ	EPA 6020A
Boron	8600	ug/L		08/31/23 08:50	20	40	09/08/23 08:25	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:08	TJJ	EPA 6020A
Calcium	180	mg/L		08/31/23 08:50	5	0.20	09/06/23 15:08	TJJ	EPA 6020A
Chromium	7.3	ug/L		08/31/23 08:50	5	4.0	09/06/23 15:08	TJJ	EPA 6020A
Cobalt	5.3	ug/L		08/31/23 08:50	5	2.0	09/06/23 15:08	TJJ	EPA 6020A
Lead	3.7	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:08	TJJ	EPA 6020A
Mercury	0.44	ug/L		08/31/23 08:50	5	0.20	09/06/23 15:08	TJJ	EPA 6020A
Molybdenum	2.5	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:08	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:08	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:08	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/31/23 08:50	1	20	09/06/23 09:27	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH05495-03

Sampled: 08/28/23 16:10

Name: AW-06

Received: 08/29/23 07:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	33	mg/L		08/29/23 13:36	10	10	08/29/23 13:36	CRD	EPA 300.0 REV 2.1
Fluoride	0.284	mg/L		08/29/23 13:17	1	0.250	08/29/23 13:17	CRD	EPA 300.0 REV 2.1
Sulfate	27	mg/L		08/29/23 13:36	10	10	08/29/23 13:36	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	27.52	Feet		08/28/23 16:10	1		08/28/23 16:10	FIELD	Field*
Dissolved oxygen, Field	2.0	mg/L		08/28/23 16:10	1		08/28/23 16:10	FIELD	Field*
Oxidation Reduction Potential	-85.0	mV		08/28/23 16:10	1	-500	08/28/23 16:10	FIELD	Field*
pH, Field Measured	7.00	pH Units		08/28/23 16:10	1		08/28/23 16:10	FIELD	Field*
Specific Conductance, Field Measured	1110	umhos/cm		08/28/23 16:10	1		08/28/23 16:10	FIELD	Field*
Temperature, Field Measured	23.3	°C		08/28/23 16:10	1		08/28/23 16:10	FIELD	Field*
Turbidity, Field Measured	36.3	NTU		08/28/23 16:10	1	0.00	08/28/23 16:10	FIELD	Field*
General Chemistry - PIA									
Solids - total dissolved solids (TDS)	560	mg/L		08/30/23 11:25	1	26	08/30/23 14:07	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		08/31/23 08:50	5	3.0	09/06/23 15:11	TJJ	EPA 6020A
Arsenic	5.2	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:11	TJJ	EPA 6020A
Barium	190	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:11	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:11	TJJ	EPA 6020A
Boron	130	ug/L		08/31/23 08:50	5	10	09/08/23 08:28	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:11	TJJ	EPA 6020A
Calcium	120	mg/L		08/31/23 08:50	5	0.20	09/06/23 15:11	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/31/23 08:50	5	4.0	09/06/23 15:11	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/31/23 08:50	5	2.0	09/06/23 15:11	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:11	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/31/23 08:50	5	0.20	09/06/23 15:11	TJJ	EPA 6020A
Molybdenum	6.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:11	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:11	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:11	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/31/23 08:50	1	20	09/06/23 09:37	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH05495-04

Sampled: 08/28/23 14:40

Name: AW-08

Received: 08/29/23 07:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	15	mg/L		08/29/23 14:15	5	5.0	08/29/23 14:15	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		08/29/23 13:56	1	0.250	08/29/23 13:56	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		08/29/23 13:56	1	1.0	08/29/23 13:56	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	24.76	Feet		08/28/23 14:40	1		08/28/23 14:40	FIELD	Field*
Dissolved oxygen, Field	12	mg/L		08/28/23 14:40	1		08/28/23 14:40	FIELD	Field*
Oxidation Reduction Potential	-120	mV		08/28/23 14:40	1	-500	08/28/23 14:40	FIELD	Field*
pH, Field Measured	6.93	pH Units		08/28/23 14:40	1		08/28/23 14:40	FIELD	Field*
Specific Conductance, Field Measured	473.0	umhos/cm		08/28/23 14:40	1		08/28/23 14:40	FIELD	Field*
Temperature, Field Measured	19.9	°C		08/28/23 14:40	1		08/28/23 14:40	FIELD	Field*
Turbidity, Field Measured	116	NTU		08/28/23 14:40	1	0.00	08/28/23 14:40	FIELD	Field*
<u>General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	720	mg/L		08/30/23 11:25	1	26	08/30/23 14:07	LAL2	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/31/23 08:50	5	3.0	09/06/23 15:15	TJJ	EPA 6020A
Arsenic	9.8	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:15	TJJ	EPA 6020A
Barium	190	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:15	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:15	TJJ	EPA 6020A
Boron	120	ug/L		08/31/23 08:50	5	10	09/06/23 08:31	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:15	TJJ	EPA 6020A
Calcium	140	mg/L		08/31/23 08:50	5	0.20	09/06/23 15:15	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/31/23 08:50	5	4.0	09/06/23 15:15	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/31/23 08:50	5	2.0	09/06/23 15:15	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:15	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/31/23 08:50	5	0.20	09/06/23 15:15	TJJ	EPA 6020A
Molybdenum	1.8	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:15	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:15	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:15	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/31/23 08:50	1	20	09/06/23 09:42	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH05495-05

Sampled: 08/28/23 13:04

Name: AW-10

Received: 08/29/23 07:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	86	mg/L		08/29/23 15:32	25	25	08/29/23 15:32	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		08/29/23 15:13	1	1.0	08/29/23 15:13	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	2.35	Feet		08/28/23 13:04	1		08/28/23 13:04	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		08/28/23 13:04	1		08/28/23 13:04	FIELD	Field*
Oxidation Reduction Potential	-111	mV		08/28/23 13:04	1	-500	08/28/23 13:04	FIELD	Field*
pH, Field Measured	6.42	pH Units		08/28/23 13:04	1		08/28/23 13:04	FIELD	Field*
Specific Conductance, Field Measured	2370	umhos/cm		08/28/23 13:04	1		08/28/23 13:04	FIELD	Field*
Temperature, Field Measured	20.3	°C		08/28/23 13:04	1		08/28/23 13:04	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		08/28/23 13:04	1	0.00	08/28/23 13:04	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	< 0.250	mg/L		09/06/23 17:29	1	0.250	09/06/23 17:29	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1300	mg/L		08/30/23 11:25	1	26	08/30/23 14:07	LAL2	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/31/23 08:50	5	3.0	09/06/23 15:27	TJJ	EPA 6020A
Arsenic	13	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:27	TJJ	EPA 6020A
Barium	1100	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:27	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:27	TJJ	EPA 6020A
Boron	500	ug/L		08/31/23 08:50	5	10	09/08/23 08:34	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:27	TJJ	EPA 6020A
Calcium	140	mg/L		08/31/23 08:50	5	0.20	09/06/23 15:27	TJJ	EPA 6020A
Chromium	10	ug/L		08/31/23 08:50	5	4.0	09/06/23 15:27	TJJ	EPA 6020A
Cobalt	7.7	ug/L		08/31/23 08:50	5	2.0	09/06/23 15:27	TJJ	EPA 6020A
Lead	8.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:27	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/31/23 08:50	5	0.20	09/06/23 15:27	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:27	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:27	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:27	TJJ	EPA 6020A
Lithium	48	ug/L		08/31/23 08:50	1	20	09/06/23 09:46	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH05495-06

Sampled: 08/28/23 11:10

Name: AW-11

Received: 08/29/23 07:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	32	mg/L		08/29/23 16:11	10	10	08/29/23 16:11	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		08/29/23 15:52	1	1.0	08/29/23 15:52	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	6.37	Feet		08/28/23 11:10	1		08/28/23 11:10	FIELD	Field*
Dissolved oxygen, Field	0.24	mg/L		08/28/23 11:10	1		08/28/23 11:10	FIELD	Field*
Oxidation Reduction Potential	-96.0	mV		08/28/23 11:10	1	-500	08/28/23 11:10	FIELD	Field*
pH, Field Measured	6.29	pH Units		08/28/23 11:10	1		08/28/23 11:10	FIELD	Field*
Specific Conductance, Field Measured	1990	umhos/cm		08/28/23 11:10	1		08/28/23 11:10	FIELD	Field*
Temperature, Field Measured	16.8	°C		08/28/23 11:10	1		08/28/23 11:10	FIELD	Field*
Turbidity, Field Measured	100	NTU		08/28/23 11:10	1	0.00	08/28/23 11:10	FIELD	Field*
<u>General Chemistry - PIA</u>									
Fluoride	< 0.250	mg/L		09/06/23 17:31	1	0.250	09/06/23 17:31	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1000	mg/L		08/30/23 11:25	1	26	08/30/23 14:07	LAL2	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/31/23 08:50	5	3.0	09/06/23 15:31	TJJ	EPA 6020A
Arsenic	11	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:31	TJJ	EPA 6020A
Barium	870	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:31	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:31	TJJ	EPA 6020A
Boron	240	ug/L		08/31/23 08:50	5	10	09/08/23 08:36	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:31	TJJ	EPA 6020A
Calcium	170	mg/L		08/31/23 08:50	5	0.20	09/06/23 15:31	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/31/23 08:50	5	4.0	09/06/23 15:31	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/31/23 08:50	5	2.0	09/06/23 15:31	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:31	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/31/23 08:50	5	0.20	09/06/23 15:31	TJJ	EPA 6020A
Molybdenum	1.7	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:31	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:31	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 15:31	TJJ	EPA 6020A
Lithium	21	ug/L		08/31/23 08:50	1	20	09/06/23 09:50	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GH05632-01

Sampled: 08/29/23 11:50

Name: AW-09

Received: 08/29/23 14:09

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	28	mg/L		08/30/23 03:09	10	10	08/30/23 03:09	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		08/30/23 02:50	1	0.250	08/30/23 02:50	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		08/30/23 02:50	1	1.0	08/30/23 02:50	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	26.73	Feet		08/29/23 11:50	1		08/29/23 11:50	FIELD	Field*
Dissolved oxygen, Field	4.5	mg/L		08/29/23 11:50	1		08/29/23 11:50	FIELD	Field*
Oxidation Reduction Potential	-94.0	mV		08/29/23 11:50	1	-500	08/29/23 11:50	FIELD	Field*
pH, Field Measured	7.12	pH Units		08/29/23 11:50	1		08/29/23 11:50	FIELD	Field*
Specific Conductance, Field Measured	1500	umhos/cm		08/29/23 11:50	1		08/29/23 11:50	FIELD	Field*
Temperature, Field Measured	18.2	°C		08/29/23 11:50	1		08/29/23 11:50	FIELD	Field*
Turbidity, Field Measured	177	NTU		08/29/23 11:50	1	0.00	08/29/23 11:50	FIELD	Field*
<u>General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	840	mg/L		08/30/23 11:25	1	26	08/30/23 14:07	LAL2	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		08/31/23 08:50	5	3.0	09/06/23 16:01	TJJ	EPA 6020A
Arsenic	17	ug/L		08/31/23 08:50	5	1.0	09/06/23 16:01	TJJ	EPA 6020A
Barium	390	ug/L		08/31/23 08:50	5	1.0	09/06/23 16:01	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 16:01	TJJ	EPA 6020A
Boron	310	ug/L		08/31/23 08:50	5	10	09/08/23 09:07	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 16:01	TJJ	EPA 6020A
Calcium	120	mg/L		08/31/23 08:50	5	0.20	09/06/23 16:01	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/31/23 08:50	5	4.0	09/06/23 16:01	TJJ	EPA 6020A
Cobalt	3.0	ug/L		08/31/23 08:50	5	2.0	09/06/23 16:01	TJJ	EPA 6020A
Lead	1.3	ug/L		08/31/23 08:50	5	1.0	09/06/23 16:01	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		08/31/23 08:50	5	0.20	09/06/23 16:01	TJJ	EPA 6020A
Molybdenum	21	ug/L		08/31/23 08:50	5	1.0	09/06/23 16:01	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 16:01	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/31/23 08:50	5	1.0	09/06/23 16:01	TJJ	EPA 6020A
Lithium	< 20	ug/L		08/31/23 08:50	1	20	09/06/23 10:12	BRS	EPA 6010B



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B342013 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B342013-MS1)	Sample: GH04348-01			Prepared & Analyzed: 08/22/23					
Chloride	< 1.0	mg/L	Q4	1.500	51	NR	80-120		
Sulfate	2.24	mg/L		1.500	0.615	108	80-120		
Matrix Spike Dup (B342013-MSD1)	Sample: GH04348-01			Prepared & Analyzed: 08/22/23					
Sulfate	2.23	mg/L		1.500	0.615	108	80-120	0.3	20
Chloride	< 1.0	mg/L	Q4	1.500	51	NR	80-120		20
<u>Batch B342111 - No Prep - SM 2540C</u>									
Blank (B342111-BLK1)	Prepared & Analyzed: 08/24/23								
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B342111-BS1)	Prepared & Analyzed: 08/24/23								
Solids - total dissolved solids (TDS)	970	mg/L		1000	97	84.9-109			
Duplicate (B342111-DUP1)	Sample: GH04348-01			Prepared & Analyzed: 08/24/23					
Solids - total dissolved solids (TDS)	1180	mg/L		1160			0.9	5	
Duplicate (B342111-DUP2)	Sample: GH04553-01			Prepared & Analyzed: 08/24/23					
Solids - total dissolved solids (TDS)	860	mg/L		830			4	5	
<u>Batch B342126 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B342126-MS1)	Sample: GH04553-01			Prepared & Analyzed: 08/23/23					
Fluoride	1.65	mg/L		1.500	ND	110	80-120		
Chloride	< 1.0	mg/L	Q1	1.500	12	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	ND	NR	80-120		
Matrix Spike Dup (B342126-MSD1)	Sample: GH04553-01			Prepared & Analyzed: 08/23/23					
Chloride	< 1.0	mg/L	Q2	1.500	12	NR	80-120		20
Sulfate	1.00E9	mg/L	Q4	1.500	ND	NR	80-120	0	20
Fluoride	1.64	mg/L		1.500	ND	109	80-120	1	20
<u>Batch B342242 - No Prep - SM 2540C</u>									
Blank (B342242-BLK1)	Prepared & Analyzed: 08/25/23								
Solids - total dissolved solids (TDS)	< 17	mg/L	B2						
LCS (B342242-BS1)	Prepared & Analyzed: 08/25/23								
Solids - total dissolved solids (TDS)	937	mg/L		1000	94	84.9-109			
Duplicate (B342242-DUP1)	Sample: GH04842-01			Prepared & Analyzed: 08/25/23					
Solids - total dissolved solids (TDS)	835	mg/L	M	890			6	5	
<u>Batch B342256 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B342256-MS2)	Sample: GH04842-01			Prepared & Analyzed: 08/24/23					
Chloride	< 1.0	mg/L	Q4	1.500	41	NR	80-120		
Sulfate	7.47	mg/L	Q1	1.500	5.56	127	80-120		
Matrix Spike Dup (B342256-MSD2)	Sample: GH04842-01			Prepared & Analyzed: 08/24/23					
Chloride	< 1.0	mg/L	Q4	1.500	41	NR	80-120		20
Sulfate	7.41	mg/L	Q2	1.500	5.56	123	80-120	0.8	20
<u>Batch B342344 - SW 3015 - EPA 6010B</u>									
Blank (B342344-BLK1)	Prepared: 08/28/23 Analyzed: 08/29/23								
Lithium	< 20	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit			
LCS (B342344-BS1)					Prepared: 08/28/23 Analyzed: 08/29/23							
Lithium	540	ug/L		555.6		97	80-120					
Matrix Spike (B342344-MS1)	Sample: GH04348-01				Prepared: 08/28/23 Analyzed: 08/29/23							
Lithium	546	ug/L		555.6	32.3	93	75-125					
Matrix Spike Dup (B342344-MSD1)	Sample: GH04348-01				Prepared: 08/28/23 Analyzed: 08/29/23							
Lithium	552	ug/L		555.6	32.3	94	75-125	1	20			
<u>Batch B342344 - SW 3015 - EPA 6020A</u>												
Blank (B342344-BLK1)					Prepared: 08/28/23 Analyzed: 08/29/23							
Antimony	< 3.0	ug/L										
Arsenic	< 1.0	ug/L										
Barium	< 1.0	ug/L										
Beryllium	< 1.0	ug/L										
Boron	< 10	ug/L										
Cadmium	< 1.0	ug/L										
Calcium	< 0.20	mg/L										
Chromium	< 4.0	ug/L										
Cobalt	< 2.0	ug/L										
Lead	< 1.0	ug/L										
Mercury	< 0.20	ug/L										
Molybdenum	< 1.0	ug/L										
Selenium	< 1.0	ug/L										
Thallium	< 1.0	ug/L										
LCS (B342344-BS1)					Prepared: 08/28/23 Analyzed: 08/29/23							
Antimony	574	ug/L		555.6		103	80-120					
Arsenic	555	ug/L		555.6		100	80-120					
Barium	560	ug/L		555.6		101	80-120					
Beryllium	572	ug/L		555.6		103	80-120					
Boron	551	ug/L		555.6		99	80-120					
Cadmium	537	ug/L		555.6		97	80-120					
Calcium	5.64	mg/L		5.556		101	80-120					
Chromium	561	ug/L		555.6		101	80-120					
Cobalt	545	ug/L		555.6		98	80-120					
Lead	556	ug/L		555.6		100	80-120					
Mercury	52.3	ug/L		55.56		94	80-120					
Molybdenum	521	ug/L		555.6		94	80-120					
Selenium	566	ug/L		555.6		102	80-120					
Thallium	528	ug/L		555.6		95	80-120					
Matrix Spike (B342344-MS1)	Sample: GH04348-01				Prepared: 08/28/23 Analyzed: 08/29/23							
Antimony	560	ug/L		555.6	ND	101	75-125					
Arsenic	555	ug/L		555.6	ND	100	75-125					
Barium	1660	ug/L		555.6	1140	93	75-125					
Beryllium	556	ug/L		555.6	ND	100	75-125					
Boron	951	ug/L		555.6	436	93	75-125					
Cadmium	535	ug/L		555.6	ND	96	75-125					
Calcium	150	mg/L		5.556	145	95	75-125					
Chromium	552	ug/L		555.6	ND	99	75-125					
Cobalt	531	ug/L		555.6	1.49	95	75-125					



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B342344-MS1)	Sample: GH04348-01			Prepared: 08/28/23 Analyzed: 08/29/23					
Lead	538	ug/L		555.6	ND	97	75-125		
Mercury	53.2	ug/L		55.56	0.389	95	75-125		
Molybdenum	541	ug/L		555.6	ND	97	75-125		
Selenium	568	ug/L		555.6	ND	102	75-125		
Thallium	509	ug/L		555.6	ND	92	75-125		
Matrix Spike Dup (B342344-MSD1)	Sample: GH04348-01			Prepared: 08/28/23 Analyzed: 08/29/23					
Antimony	564	ug/L		555.6	ND	102	75-125	0.7	20
Arsenic	555	ug/L		555.6	ND	100	75-125	0.03	20
Barium	1670	ug/L		555.6	1140	95	75-125	0.7	20
Beryllium	547	ug/L		555.6	ND	98	75-125	2	20
Boron	971	ug/L		555.6	436	96	75-125	2	20
Cadmium	537	ug/L		555.6	ND	97	75-125	0.4	20
Calcium	148	mg/L	Q4	5.556	145	65	75-125	1	20
Chromium	554	ug/L		555.6	ND	100	75-125	0.4	20
Cobalt	531	ug/L		555.6	1.49	95	75-125	0.01	20
Lead	543	ug/L		555.6	ND	98	75-125	0.9	20
Mercury	54.4	ug/L		55.56	0.389	97	75-125	2	20
Molybdenum	541	ug/L		555.6	ND	97	75-125	0.004	20
Selenium	568	ug/L		555.6	ND	102	75-125	0.04	20
Thallium	513	ug/L		555.6	ND	92	75-125	0.7	20
<u>Batch B342514 - No Prep - SM 4500F C 1997</u>									
Matrix Spike (B342514-MS4)	Sample: GH04348-04			Prepared & Analyzed: 08/29/23					
Fluoride	1.09	mg/L		1.000	0.0810	101	80-120		
Matrix Spike Dup (B342514-MSD4)	Sample: GH04348-04			Prepared & Analyzed: 08/29/23					
Fluoride	1.10	mg/L		1.000	0.0810	102	80-120	1	20
<u>Batch B342591 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B342591-MS1)	Sample: GH05495-01			Prepared & Analyzed: 08/29/23					
Fluoride	1.73	mg/L		1.500	0.215	101	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	83	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	240	NR	80-120		
Matrix Spike Dup (B342591-MSD1)	Sample: GH05495-01			Prepared & Analyzed: 08/29/23					
Fluoride	1.69	mg/L		1.500	0.215	99	80-120	2	20
Sulfate	1.00E9	mg/L	Q4	1.500	240	NR	80-120	0	20
Chloride	< 1.0	mg/L	Q4	1.500	83	NR	80-120		
<u>Batch B342596 - No Prep - SM 2540C</u>									
Blank (B342596-BLK1)				Prepared & Analyzed: 08/30/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B342596-BS1)				Prepared & Analyzed: 08/30/23					
Solids - total dissolved solids (TDS)	1020	mg/L		1000	102	84.9-109			
Duplicate (B342596-DUP1)	Sample: GH05495-01			Prepared & Analyzed: 08/30/23					
Solids - total dissolved solids (TDS)	905	mg/L		875			3	5	
Duplicate (B342596-DUP2)	Sample: GH05632-01			Prepared & Analyzed: 08/30/23					
Solids - total dissolved solids (TDS)	840	mg/L		840			0	5	



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B342610 - No Prep - SM 4500F C 1997</u>									
Matrix Spike (B342610-MS1)	Sample: GH04553-01				Prepared & Analyzed: 08/30/23				
Fluoride	1.29	mg/L		1.000	0.280	101	80-120		
Matrix Spike (B342610-MS2)	Sample: GH04842-04				Prepared & Analyzed: 08/30/23				
Fluoride	1.09	mg/L		1.000	0.0820	101	80-120		
Matrix Spike Dup (B342610-MSD1)	Sample: GH04553-01				Prepared & Analyzed: 08/30/23				
Fluoride	1.32	mg/L		1.000	0.280	104	80-120	2	20
Matrix Spike Dup (B342610-MSD2)	Sample: GH04842-04				Prepared & Analyzed: 08/30/23				
Fluoride	1.09	mg/L		1.000	0.0820	101	80-120	0.5	20
<u>Batch B342684 - SW 3015 - EPA 6010B</u>									
Blank (B342684-BLK1)					Prepared: 08/31/23	Analyzed: 09/06/23			
Lithium	< 20	ug/L							
LCS (B342684-BS1)					Prepared: 08/31/23	Analyzed: 09/06/23			
Lithium	526	ug/L		555.6		95	80-120		
Matrix Spike (B342684-MS1)	Sample: GH05495-01				Prepared: 08/31/23	Analyzed: 09/06/23			
Lithium	512	ug/L		555.6	6.12	91	75-125		
Matrix Spike Dup (B342684-MSD1)	Sample: GH05495-01				Prepared: 08/31/23	Analyzed: 09/06/23			
Lithium	514	ug/L		555.6	6.12	91	75-125	0.4	20
<u>Batch B342684 - SW 3015 - EPA 6020A</u>									
Blank (B342684-BLK1)					Prepared: 08/31/23	Analyzed: 09/06/23			
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Selenium	< 1.0	ug/L							
Thallium	< 1.0	ug/L							
LCS (B342684-BS1)					Prepared: 08/31/23	Analyzed: 09/06/23			
Antimony	560	ug/L		555.6		101	80-120		
Arsenic	547	ug/L		555.6		98	80-120		
Barium	545	ug/L		555.6		98	80-120		
Beryllium	541	ug/L		555.6		97	80-120		
Boron	534	ug/L		555.6		96	80-120		
Cadmium	536	ug/L		555.6		97	80-120		
Calcium	5.40	mg/L		5.556		97	80-120		
Chromium	547	ug/L		555.6		99	80-120		
Cobalt	545	ug/L		555.6		98	80-120		
Lead	564	ug/L		555.6		102	80-120		



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B342684-BS1)									
Mercury	51.5	ug/L		55.56		93	80-120		
Molybdenum	535	ug/L		555.6		96	80-120		
Selenium	555	ug/L		555.6		100	80-120		
Thallium	544	ug/L		555.6		98	80-120		
Matrix Spike (B342684-MS1)									
Antimony	548	ug/L		555.6	ND	99	75-125		
Arsenic	541	ug/L		555.6	ND	97	75-125		
Barium	603	ug/L		555.6	72.6	96	75-125		
Beryllium	534	ug/L		555.6	ND	96	75-125		
Boron	9940	ug/L		555.6	9390	99	75-125		
Cadmium	527	ug/L		555.6	1.27	95	75-125		
Calcium	160	mg/L	Q4	5.556	157	54	75-125		
Chromium	531	ug/L		555.6	ND	96	75-125		
Cobalt	525	ug/L		555.6	2.92	94	75-125		
Lead	542	ug/L		555.6	0.900	97	75-125		
Mercury	51.8	ug/L		55.56	ND	93	75-125		
Molybdenum	536	ug/L		555.6	1.06	96	75-125		
Selenium	543	ug/L		555.6	ND	98	75-125		
Thallium	528	ug/L		555.6	ND	95	75-125		
Matrix Spike Dup (B342684-MSD1)									
Antimony	547	ug/L		555.6	ND	99	75-125	0.08	20
Arsenic	554	ug/L		555.6	ND	100	75-125	2	20
Barium	622	ug/L		555.6	72.6	99	75-125	3	20
Beryllium	550	ug/L		555.6	ND	99	75-125	3	20
Boron	10300	ug/L	Q2	555.6	9390	157	75-125	3	20
Cadmium	542	ug/L		555.6	1.27	97	75-125	3	20
Calcium	161	mg/L	Q4	5.556	157	71	75-125	0.6	20
Chromium	548	ug/L		555.6	ND	99	75-125	3	20
Cobalt	538	ug/L		555.6	2.92	96	75-125	2	20
Lead	556	ug/L		555.6	0.900	100	75-125	3	20
Mercury	52.6	ug/L		55.56	ND	95	75-125	2	20
Molybdenum	547	ug/L		555.6	1.06	98	75-125	2	20
Selenium	558	ug/L		555.6	ND	100	75-125	3	20
Thallium	540	ug/L		555.6	ND	97	75-125	2	20



NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

- B2 Contamination does not impact data since sample result is greater than ten times the contamination level found in the blank.
- M Analyte failed to meet the required acceptance criteria for duplicate analysis.
- Q1 Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q2 Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q3 Matrix Spike/Matrix Spike Duplicate both failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

A handwritten signature in black ink that reads "Diane Billings".

Certified by: Diane Billings, Project Manager



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT	AP05S	Purge Method:	Post-pump PVMP		
Date:	8-23-23	Start Time:	11:30		
Well Depth (Bottom) From MP:		ft	Min. Purge Volume:	1.5	Gal / L
Depth to Water From MP:	b.07	ft	Total Purge Volume:	1.8	Gal / L
Water Column Length:		ft	Max Drawdown:	N/A	ft
Well Water Volume:		Gal / L	Total Drawdown:		ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	11:50	06.43	100	7.02	1470	26.71	-131	1.47	43.1
2	11:51	06.42	100	6.91	1490	26.71	-132	1.30	40.9
3	11:52	06.43	100	6.88	1490	26.69	-133	1.26	39.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely	✓	
Good seal/drainage	✓	
Well has weep holes		

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metal's (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)
1	2.5 L HCl
1	500 mL ZnCl2

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
	+dc

Ferrous Iron

Over mg/L

Comments NA

Sampler's Signature: H. Green

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301WELL/SAMPLE POINT AP07SPurge Method: Portable pump

Date: 8/28/23 Start Time: 0945 Finish/Sample Time: 1047

Well Depth (Bottom) From MP: 37.35 ft Min. Purge Volume: 1.0 Gal L

Depth to Water From MP: 25.17 ft Total Purge Volume: 1.4 Gal L

Water Column Length: 12.16 ft Max Drawdown: - ft

Well Water Volume: 7.36 Gal L Total Drawdown: 0.97 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1007	25.77	100	6.78	1430	20.49	42	10.12	135
2	1010	25.95	100	6.97	1430	20.55	43	9.90	114
3	1012	25.98	100	6.95	1420	20.59	44	9.81	101
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hanna

Sample Appearance:

Odor: None Slight Mod. StrongColor: None Slight Mod. StrongTurb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
1	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	2.5 L HNO ₃
1	NaOH + Zinc

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
3	General (P,500mL)
	TOC

Ferrous Iron 0.097 mg/L

Comments

Final DTW = 26.16'

Sampler's Signature:

Jeanne Dri

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301**

WELL/SAMPLE POINT AW-01 Purge Method: Dedicate 1 pump
Date: 8/22/23 Start Time: 1158 Finish/Sample Time: 1428

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L
Depth to Water From MP: 10.28 ft Total Purge Volume: 1500 Gal / L MA
Water Column Length: _____ ft Max Drawdown: _____ ft
Well Water Volume: _____ Gal / L Total Drawdown: 15.62 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1221	11.72	100	6.63	1470	24.89	-91	0.57	15.2
2	1223	11.90	100	6.64	1470	24.73	-92	0.54	10.0
3	1225	12.05	100	6.64	1450	24.70	-95	0.51	8.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hofiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Med Strong

First Second Bright White Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
343	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
363	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
141	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
141	General (P, 250 mL) <i>Scout L 100 mL</i>
141	(P, 500mL, NaOH + ZnAc)
141	(P, 2.5L, HNO ₃)

Ferrous Iron Over range mg/L

Comments Final DW 25.50

Sampler's Signature:

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-05

Purge Method: Dedicated pump

Date: 8/28/23 Start Time: 1335 Finish/Sample Time: 1449

Well Depth (Bottom) From MP: Pump ft Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 8.93 ft Total Purge Volume: 1.3 Gal / L

Water Column Length: — ft Max Drawdown: — ft

Well Water Volume: — Gal / L Total Drawdown: 0.31 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1346	9.09	100	7.03	1720	21.49	55	0.66	645
2	1347	9.10	100	7.01	1730	21.44	40	0.65	687
3	1349	9.10	100	7.01	1730	21.45	26	0.49	697
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hanna

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	2.5L HNO ₃
1	NaOH + ZnAc

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL)
3	TdC

Ferrous Iron 4.189 mg/L

Comments Final DTW = 9.24'

Sampler's Signature: Jeanne D.J.

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT AW-06 **Purge Method:** Dedicated Blaster

Date: 5/28/2023 Start Time: 1450 Finish/Sample Time: 1610

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 27.52 ft Total Purge Volume: 1000 Gal / L 0.2

Water Column Length: _____ ft Max Drawdown: _____ ft

Well Water Volume: _____ Gal / L Total Drawdown: 1014.3 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1505	29.64	100	7.08	1110	23.40	-78	2.02	43.7
2	1507	29.80	100	7.02	1110	23.37	-77	2.08	40.4
3	1508	29.97	100	7.00	1110	23.28	-85	2.00	36.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBa

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
7	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P, 250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) 100ml
1	(P 500mL NaOH + HCl)
1	(P 250mL HNO ₃)

15

App 8728723 Ferrous Iron 0.553 mg/L

Comments Final DTV 37.95 PL

Sampler's Signature:



APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301WELL/SAMPLE POINT AW-08Purge Method: Descend & pumpDate: 8/28/2023 Start Time: 1315 Finish/Sample Time: 1440

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 24.76 ft Total Purge Volume: _____ Gal / L

Water Column Length: _____ ft Max Drawdown: _____ ft

Well Water Volume: _____ Gal / L Total Drawdown: _____ ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1332	24.17	100	6.88	489	19.77	-118	12.44	117
2	1334	30.34	100	6.85	436	19.83	-115	12.38	67.3
3	1336	30.34	100	6.90	455	19.83	-119	12.40	112
4	1338	30.72	100	6.83	473	19.90	-120	12.36	116
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horizon

Sample Appearance:

Odor: None Slight Mod. StrongColor: None Slight Mod. StrongTurb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

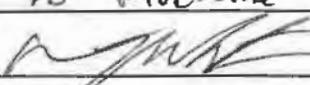
Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) 1000mL
1	(P, 500mL, pH 2.5) NaOH (2NAc)
1	(P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL)
3	TOC (A,V, 40mL, H ₂ SO ₄)

Ferrous Iron Over range mg/L

Comments Final DTW 39.63 FL

Check values cause flow rate to fluctuate between 25-200mL/min

Sampler's Signature: 

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT AW-09 Purge Method: Bladder prep

Date: 8/29/23 Start Time: 1000 Finish/Sample Time: 1150

Well Depth (Bottom) From MP: 74MP ft Min. Purge Volume: 1.5 Gal C
Depth to Water From MP: 26.73 ft Total Purge Volume: 1.8 Gal L
Water Column Length: — ft Max Drawdown: — ft Total Drawdown: 12.22 ft End DTW 38.95
Well Water Volume: — Gal / L

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1030	2980	100	7.18	1970	18.23	-90	4.84	211
2	1031	2999	100	7.13	1410	18.23	-93	4.69	184
3	1032	302	100	7.12	1500	18.20	-94	4.50	177
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hach

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) <u>1000 mL</u>
1	<u>2.3 L HNO₃</u>
1	<u>Zn acetate 500 mL</u>

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P, 500mL) <u>1000</u>
3	<u>TOC</u>

Ferrous Iron Over Range mg/L

Comments

Sampler's Signature:

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301**

WELL/SAMPLE POINT AW-10

Purge Method: Dedicated Bladder

Date: 8/28/2023 Start Time: 1115 Finish/Sample Time: 1304

Well Depth (Bottom) From MP:	ft	Min. Purge Volume:	Gal / L
Depth to Water From MP:	2.35 ft	Total Purge Volume:	1500 Gal / L
Water Column Length:	ft	Max Drawdown:	ft
Well Water Volume:	Gal / L	Total Drawdown:	3.40 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1158	4.04	100	6.43	2370	20.30	-107	0.00	0.0
2	1200	4.14	100	6.42	2370	20.35	-110	0.00	0.0
3	1202	4.24	100	6.42	2370	20.29	-111	0.00	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

Sample Appearance:

Odor: None Slight Mod. Strong

None Slight Med Strong

None Slight Mod. Strong

Turb: None Slight Mod Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) 1000 mL
1	(P, 500mL NaOH + ZnAc)
1	(P 2.5L HM03)

15

Ferrous Iron

Over Range mg/L

Comments DTW 5.15 AM

Sampler's Signature:

✓ M. H. B.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT AW-11 Purge Method: Dedicated Bladder
Date: 8/28/2023 Start Time: 0945 Finish/Sample Time: 1110

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L
Depth to Water From MP: 6-37 ft Total Purge Volume: 1500 Gal / L (u)
Water Column Length: _____ ft Max Drawdown: _____ ft
Well Water Volume: _____ Gal / L Total Drawdown: 0.0 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1005	6-37	100	6.30	2010	16.83	-94	0.23	120
2	1007	6-37	100	6.29	1990	16.75	-95	0.21	108
3	1009	6-37	100	6.29	1990	16.78	-96	0.24	100
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBr

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCL)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) <u>1000</u>
1	(P, 500mL, NaOH + 2NaCl)
1	(P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) <u>1000</u>
3	TOC (A,V 40mL, H ₂ SO ₄)

App 7/25/23
Ferrous Iron 6- Over range mg/L

Comments Final TW-6-37

Sampler's Signature: A. J. Hall

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT AW-14 Purge Method: Dedicated Bladder
Date: 8/23/23 Start Time: 14:30 Finish/Sample Time: 1553

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L
Depth to Water From MP: 7.06 ft Total Purge Volume: 1500 Gal / L mL
Water Column Length: _____ ft Max Drawdown: _____ ft
Well Water Volume: _____ Gal / L Total Drawdown: 10.00 ft
App 8/23/23 *App 8/23/23*

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	14:48	8.43	100	7.14	1650	23.10	-130	1.16	0.0
2	14:50	8.95	100	7.07	1680	23.16	-132	1.13	0.0
3	14:52	8.10	100	6.99	1720	23.18	-132	1.09	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Motrola

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

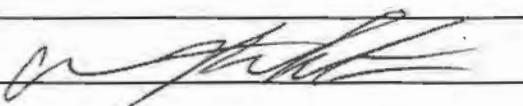
BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCL)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P,250 mL) <u>1000mL</u>
1	(P, 500mL, NaOH + ZnAc)
1	(P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) <u>1000mL</u>
3	TOL (A,V, 100mL, H ₂ SO ₄)

Ferrous Iron Over Range mg/L

Comments Final DSW 17.06

Sampler's Signature: 

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT AW-15 Purge Method: Decanted Blaster

Date: 8/23/23 Start Time: 1130 Finish/Sample Time: 1255

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 9.00 ft Total Purge Volume: 1500 Gal / L (ML)

Water Column Length: _____ ft Max Drawdown: _____ ft

Well Water Volume: _____ Gal / L Total Drawdown: 0.20 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1149	9.17	100	6.78	2040	19.34	-139	0.55	0.0
2	1151	9.18	100	6.78	2040	19.40	-140	0.42	0.0
3	1153	9.19	100	6.78	2050	19.48	-140	0.45	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HOR 60

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
3	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
1	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) 1000 mL
1	(P, 500mL NaOH + ZnCl ₂)
1	(P, 2.5L HNO ₃)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) 1000 mL
3	TOC (A,V, 40mL, H ₂ SO ₄)

Ferrous Iron Over range mg/L

Comments Final DTU 9.20

Sampler's Signature: [Signature]

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-15S Purge Method: Dedicated Bladder

Date: 8/23/23 Start Time: 1258 Finish/Sample Time: 1425

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 1.75 ft Total Purge Volume: 1500 Gal / L (ml)

Water Column Length: _____ ft Max Drawdown: _____ ft

Well Water Volume: _____ Gal / L Total Drawdown: 500 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1318	10.95	100	6.92	1720	25.12	-30	0.40	0.0
2	1320	11.00	100	6.92	1730	25.05	-29	0.39	0.0
3	1322	11.05	100	6.92	1730	25.10	-29	0.35	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hori 60

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	(P, 500mL, NaOH & 2n Ac)
1	(P, 250mL, HNO ₃)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ S0 ₄)
1	General (P,500mL) 1000mL
3	TOC (A,V, 40mL, H ₂ SO ₄)

Ferrous Iron 0.433 mg/L

Comments Final DTV 14.75 fl

Sampler's Signature: A. Holt

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-16	Purge Method:	Dedicated Pump
Date:	8-21-23	Start Time:	12:05
Well Depth (Bottom) From MP:	56.80 ft	Min. Purge Volume:	1.5 Gal / L
Depth to Water From MP:	25.21 ft	Total Purge Volume:	1.8 Gal / L
Water Column Length:	31.59 ft	Max Drawdown:	NA ft
Well Water Volume:	5.05 L	Total Drawdown:	ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	12:25	25.67	100	7.01	2,000	20.92	-119	0.21	9.0
2	12:26	25.90	100	6.99	1,990	20.89	-120	0.18	8.5
3	12:27	25.91	100	6.96	1,970	20.81	-120	0.12	9.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
2	VOAs (C,V, 40mL, HCL)
3+3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3+3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1+1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1+1	General (P, 250 mL)
1+1	2.5 L HNO ₃
1+1	P,500 mL, ZnAC

Filtered	
Qty	Bottles
1+1	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ S0 ₄)
1+1	General (P,500mL)
3+3	TOC

Ferrous Iron 5.161 mg/L

Comments FD - 26.11 DVP were grabbed

Sampler's Signature: *M. Green*

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-17	Purge Method:	Dedicated Pump
Date:	8-21-23	Start Time:	14:52
Well Depth (Bottom) From MP:	56.62 ft	Min. Purge Volume:	1.5 Gal / L
Depth to Water From MP:	26.14 ft	Total Purge Volume:	1.8 Gal / L
Water Column Length:	30.48 ft	Max Drawdown:	NA ft
Well Water Volume:	4.876 Gal / L	Total Drawdown:	

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	14:50	26.84	100	7.04	1,620	25.29	-103	1.53	137
2	14:51	26.82	100	6.99	1,630	25.15	-104	1.41	141
3	14:52	26.83	100	6.95	1,620	25.08	-106	1.30	140
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

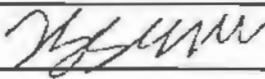
BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	2.5 L HNO ₃
1	500 mL ZTAC

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL)
3	TOC 40 mL

Ferrous Iron over range mg/L

Comments ED → 27.91

Sampler's Signature: 

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
 EDW-257-301

WELL/SAMPLE POINT AW-18 Purge Method: Dedicated Pump
 Date: 8-22-23 Start Time: 09:43 Finish/Sample Time: 11:11

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: 1.5 Gal / L
 Depth to Water From MP: 27.97 ft Total Purge Volume: 1.8 Gal / L
 Water Column Length: _____ ft Max Drawdown: NA ft
 Well Water Volume: _____ Gal / L Total Drawdown: _____ ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	10:03	29.48	100	6.62	1,740	18.92	-117	1.30	33.7
2	10:04	29.51	100	6.60	1,730	18.91	-118	1.15	32.9
3	10:05	29.56	100	6.59	1,730	18.99	-119	1.05	29.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBa

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCL)
3	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	2.5 L H ₂ O ₃
1	500 mL ZnAc

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL)
	+0.5

Ferrous Iron over range mg/L

Comments ED → 32.11

Sampler's Signature: W.H. M.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-19	Purge Method:	Dedicated Pump
Date:	8-22-23	Start Time:	11:30
Well Depth (Bottom) From MP:	ft	Min. Purge Volume:	1.5 Gal / L
Depth to Water From MP:	14.10 ft	Total Purge Volume:	1.8 Gal / L
Water Column Length:	ft	Max Drawdown:	NA ft
Well Water Volume:	Gal / L	Total Drawdown:	ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	11:50	16.03	100	6.51	6060	20.0	-58	1.10	2.9
2	11:51	16.11	100	6.50	6060	20.0	-58	1.00	2.68
3	11:52	16.20	100	6.49	6050	20.03	-57	0.96	2.46
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hach

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCL)
3	VOAS (C,V, 40mL)
3	Organics (A,G,U 1000mL)
3	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
3	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	2.5 L H ₂ O ₂
1	500 mL; 2 nae

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL)
3	+PC

Ferrous Iron 2673 mg/L

Comments

FD — 18.12

Sampler's Signature: K. Green

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-21	Purge Method:	Dedicated Pump
Date:	8-22-23	Start Time:	14:40
		Finish/Sample Time:	16:04
Well Depth (Bottom) From MP:	ft	Min. Purge Volume:	1.5 Gal / L
Depth to Water From MP:	17.47 ft	Total Purge Volume:	1.8 Gal / L
Water Column Length:	ft	Max Drawdown:	NA ft
Well Water Volume:	Gal / L	Total Drawdown:	ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	14:58	18.80	100	6.55	1,040	18.73	141	7.89	16.2
2	14:59	18.84	100	6.54	1,040	18.69	136	7.74	15.7
3	15:00	18.88	100	6.53	1,050	18.59	130	7.69	15.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
3	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
6	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	2,52,17,03
1	3,00,my,2,1ave

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ S0 ₄)
3	General (P,500mL)
	+0C

Ferrous Iron 5.247 mg/L
Over Range BG
Comments FD - 19.89 Over Range 9/12/23

Sampler's Signature: M. Hallman

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Kyle Lane			Location:	EDWARD Power				
Weather:	84° to 93° sunny			Environment:	dry				
Multiparameter Water Meter	Make:	Horiba		Model:	V-5000		Serial Number:	PW2GyJ03	
Water Level Meter	Make:	Hensel		Model:	water tapp		Serial Number:	19FF220213ML	
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	✓	NA	NA	MSI	D23067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.				MSI	D23051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	-214	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.01	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.00	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.40	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	11:40		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	✓	NA	Geotech	2GE870	May-24
pH 7.00b	7.01	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	103	µS/cm	±5%	✓		Ricca	4209A12	Aug-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	NA			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	D23067-01	3/14/2025
pH 7.00a		s.u.	±0.1 s.u.				MSI	D23051-02	2/21/2025
pH 10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	16:35			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.03	s.u.	±0.1 s.u.	✓	NA	NA	MSI	023067-01	3/14/2025
7.00a	6.97	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a	9.95	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1000	µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)	0.8	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

NA

Signature:	Kyle Lane	Date:	8-21-2023
------------	-----------	-------	-----------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton		Location:	Edwards power station					
Weather:	84° - 90° Wind Partly cloudy NE 7 mph		Environment:	Grass, gravel D:12					
Multiparameter Water Meter	Make:	HORIBA	Model:	US600	Serial Number:	U4U1E7UE			
Water Level Meter	Make:	YETI	Model:	DIGITAL	Serial Number:	3717-T			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	No	-	MSI	023067-01	3/14/2025
pH 7.00a	6.75	s.u.	±0.1 s.u.	P	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	9.91	s.u.	±0.1 s.u.	P	No	-	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	No	-	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%			-	Geotech	3GA1071	Jan-24
ORP	-226	mV	±15 mV			-	InSitu	3GD927	Jan-24
DO (Zero pt)	0.00	mg/L	±0.1			-	Macron	#000228049	8/26/2025
DO (Saturated)	98.77	%	97-100%			-	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU			-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

224 @ 29°C

ICV (Initial Calibration Verification)					Time:	1148			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.992	s.u.	±0.15 s.u.	P	-	Geotech	2GE870	May-24	
pH 7.00b	6.98	s.u.	±0.15 s.u.		-	Geotech	2GF113	Jun-24	
pH 10.00b	10.05	s.u.	±0.15 s.u.		-	Geotech	2GE820	May-24	
SC 1000	1000	µS/cm	±5%		-	Ricca	4209A12	Aug-23	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: Only one well sampled

Signature:		Date:	8/21/2023
------------	--	-------	-----------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARD'S POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Remington			-Location:	Edwards power station				
Weather:	73°-42° sunny wind NE Smoky			Environment:	grass, gravel, dirt				
Multiparameter Water Meter	Make:	Horiba		Model:	V5000	Serial Number:	U4V1FTVF		
Water Level Meter	Make:	Heron		Model:	Dipa-T	Serial Number:	3717-7		
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	19.60	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	236	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	113.3	%	97-100%	C	yes	100.0	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0845	229 @ 25°C		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	N/A		Geotech	2GE870	May-24
pH 7.00b	6.88	s.u.	±0.15 s.u.	P	N/A		Geotech	2GF113	Jun-24
pH 10.00b	9.97	s.u.	±0.15 s.u.	P	N/A		Geotech	2GE820	May-24
SC 1000	9.94	µS/cm	±5%	P	N/A		Ricca	4209A12	Aug-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1600			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	9.98	µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	8/22/2023
------------	---	-------	-----------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KYLE LANE			Location:	EDWARD POWER				
Weather:	90° SUNNY			Environment:	DRY				
Multiparameter Water Meter	Make:	HORIBA	Model:	V-5010	Serial Number:	PW2GYJD3			
Water Level Meter	Make:	LEMNA	Model:	water tape	Serial Number:	19FP220213ML			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.37	s.u.	± 0.1 s.u.	F	N/A	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	± 0.1 s.u.	P	N/A	N/A	MSI	023051-02	2/21/2025
pH 10.00a	9.97	s.u.	± 0.1 s.u.			N/A	MSI	022361-01	12/27/2024
SC Zero (DI)	0.20	$\mu\text{S}/\text{cm}$	0<25 $\mu\text{S}/\text{cm}$			N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1.970	$\mu\text{S}/\text{cm}$	$\pm 5\%$			N/A	Geotech	3GA1071	Jan-24
ORP	272	mV	± 15 mV			N/A	InSitu	3GD927	Jan-24
DO (Zero pt)	0.08	mg/L	± 0.1			N/A	Macron	#000228049	8/26/2025
DO (Saturated)	97.50	%	97-100%			N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.9	NTU	<2 NTU			N/A	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time:	08:40			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.01	s.u.	± 0.15 s.u.	P	N/A	Geotech	2GE870	May-24	
pH 7.00b	7.04	s.u.	± 0.15 s.u.		N/A	Geotech	2GF113	Jun-24	
pH 10.00b	10.19	s.u.	± 0.15 s.u.		N/A	Geotech	2GE820	May-24	
SC 1000	9.90	$\mu\text{S}/\text{cm}$	$\pm 5\%$		N/A	Ricca	4209A12	Aug-23	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:	NA			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	± 0.1 s.u.			N/A	MSI	023067-01	3/14/2025
pH 7.00a		s.u.	± 0.1 s.u.			N/A	MSI	023051-02	2/21/2025
pH 10.00a		s.u.	± 0.1 s.u.			N/A	MSI	022361-01	12/27/2024
SC 1000		$\mu\text{S}/\text{cm}$	$\pm 5\%$			N/A	Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	± 0.1 mg/L			N/A	Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU			N/A	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:	10:20			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.02	s.u.	± 0.1 s.u.	P	N/A	N/A	MSI	023067-01	3/14/2025
7.00a	7.05	s.u.	± 0.1 s.u.			N/A	MSI	023051-02	2/21/2025
10.00a	9.99	s.u.	± 0.1 s.u.			N/A	MSI	022361-01	12/27/2024
SC 1000	10.00	$\mu\text{S}/\text{cm}$	$\pm 5\%$			N/A	Ricca	4209A12	Aug-23
DO (Zero pt)	0.01	mg/L	± 0.1 mg/L			N/A	Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU			N/A	Pace Labs	N/A (DI)	N/A (DI)
Comments: NA									
Signature:	B. Glenn			Date:	8-22-2023				

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Kimberlin		Location:	Edwards
Weather:	82°-97° F Sunny Wind SW 7 mph		Environment:	grass, gravel, dirt

Multiparameter Water Meter	Make:	Hori	Model:	V 5000	Serial Number:	UHV1FTVF
----------------------------	-------	------	--------	--------	----------------	----------

Water Level Meter	Make:	Heron	Model:	D-8917	Serial Number:	3717-7
-------------------	-------	-------	--------	--------	----------------	--------

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	222	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	9.76	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Time:	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N/A	0843	Geotech	2GE870	May-24
pH 7.00b	6.91	s.u.	±0.15 s.u.				Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.				Geotech	2GE820	May-24
SC 1000	0.90	µS/cm	±5%				Ricca	4209A12	Aug-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	0.89	µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)	0.001	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	—			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	8/23/23
------------	--	-------	---------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KYL LANE			Location:	EDWARD POWER				
Weather:	90° SUNNY			Environment:	DRY				
Multiparameter Water Meter	Make:	Holiba	Model:	V-500	Serial Number:	PW2G4303			
Water Level Meter	Make:	Holiba	Model:	WATER TAPE	Serial Number:	19FFL2013ML			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	NA	na	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	210	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.03	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	3.6	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	08.46		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	na	Geotech	2GE870	May-24
pH 7.00b	7.00	s.u.	±0.15 s.u.		na	Geotech	2GF113	Jun-24
pH 10.00b	10.00	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	1000	µS/cm	±5%			Ricca	4209A12	Aug-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification)					Time:	NA			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1000	µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)	0.03	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	3.6	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification)					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.00	s.u.	±0.1 s.u.	P	na	na	MSI	023067-01	3/14/2025
7.00a	7.00	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1000	µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)	0.03	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	3.6	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	KYL LANE	Date:	8-23-2023
------------	----------	-------	-----------

APPENDIX A.

- ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD			Location:	Visalia Edwards				
Weather:	71-81°F sunny wind NE 7-8 mph			Environment:	grass, road				
Multiparameter Water Meter	Make:	Horiba		Model:	U-5000		Serial Number:	YL9K J9HA	
Water Level Meter	Make:	Heron		Model:	Dipper-T		Serial Number:	11FF22093054L	
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	pass	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.84	s.u.	±0.1 s.u.	fail	yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	pass	N	NA	MSI	022361-01	12/27/2024
SC Zero (DI)	2.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1970	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	184	mV	±15 mV	fail	yes	230	InSitu	3GD927	Jan-24
DO (Zero pt)	0.02	mg/L	±0.1	pass	N	NA	Macron	#000228049	8/26/2025
DO (Saturated)	97.7	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.2	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0930		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.89	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	May-24
pH 7.00b	6.73	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.95	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	954	µS/cm	±5%			Ricca	4209A12	Aug-23

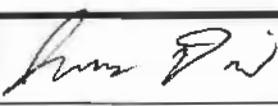
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	04/16/09			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	pass	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.09	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)	0.10	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.8	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	8/28/23
------------	---	-------	---------

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND
 EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Flemerton			Location:	Edwards power station				
Weather:	65°-81° L sunny Wind NE 4 mph			Environment:	grass, gravel, dirt				
Multiparameter Water Meter	Make:	Hori	Model:	J500B	Serial Number:	PW26YJ D3			
Water Level Meter	Make:	Heron	Model:	Dipper T	Serial Number:	3717-T			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	19.90	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	233	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	2.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0924			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.91	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	May-24	
pH 7.00b	7.00	s.u.	±0.15 s.u.	P	N/A	Geotech	2GF113	Jun-24	
pH 10.00b	10.00	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE820	May-24	
SC 1000	9.78	µS/cm	±5%			Ricca	4209A12	Aug-23	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1617			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	9.88	µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	8/28/2023
------------	---	-------	-----------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed			Location:	Edwards Power				
Weather:				Environment:					
Multiparameter Water Meter	Make:	Horiba	Model:	U5000	Serial Number:	YL9KJ9HA			
Water Level Meter	Make:	Heron	Model:	1900	Serial Number:	19FF2111192HB			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	± 0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	± 0.1 s.u.	P	N		MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	± 0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC Zero (DI)	1.00	$\mu\text{S}/\text{cm}$	0<25 $\mu\text{S}/\text{cm}$	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1900	$\mu\text{S}/\text{cm}$	$\pm 5\%$	P	N		Geotech	3GA1071	Jan-24
ORP	240	mV	± 15 mV	P	N		InSitu	3GD927	Jan-24
DO (Zero pt)	0.05	mg/L	± 0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	97.9	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.1	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	925		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	± 0.15 s.u.	P	N	Geotech	2GE870	May-24
pH 7.00b	6.98	s.u.	± 0.15 s.u.	P	N	Geotech	2GF113	Jun-24
pH 10.00b	9.99	s.u.	± 0.15 s.u.	P	N	Geotech	2GE820	May-24
SC 1000	1000	$\mu\text{S}/\text{cm}$	$\pm 5\%$	P	N	Ricca	4209A12	Aug-23

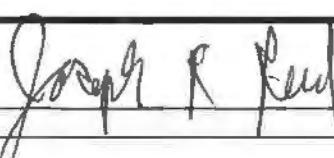
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	± 0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a		s.u.	± 0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a		s.u.	± 0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		$\mu\text{S}/\text{cm}$	$\pm 5\%$				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	± 0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	± 0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	± 0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	± 0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		$\mu\text{S}/\text{cm}$	$\pm 5\%$				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	± 0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:			Date:	8/29/23
------------	---	--	-------	---------

GHT04348
VMW 8-22-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2		
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey		Company Name: Vistra Corp	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Quote Reference:		UST	RCRA	OTHER		
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Project Manager:		Site Location	IL			
Phone: (217) 753-8911	Fax:	Profile #:		STATE:				
Requested Due Date/TAT:	10 day	Project Number: 2285						

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	CODE (see valid codes to left)	COLLECTED	SAMPLE TEMP AT COLLECTION	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.	
						MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	# OF CONTAINERS	Preservatives					Y/N	Analysis Test ↓			
1	SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	DRINKING WATER WATER WASTE WATER PRODUCT SOIL/SOLID OIL W/PE AIR OTHER TISSUE	DW WT WW P SL OL WP AR OT TS	DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	methanol	Other	EDW-257-301				
2	AP05S													EDW-845-301				
3	AP07S													EDW-SUP-000				
4	APW-01													EDW-CAP-301				
5	AW-01																	
6	AW-05																	
7	AW-06																	
8	AW-08																	
9	AW-09																	
10	AW-10																	
11	AW-11																	
12	AW-14																	
13	AW-15																	
14	AW-15S																	
15	AW-16	WT	G	8/21/23	1428	15	X	X	X									
16	AW-17	WT	G	8/21/23	1601	15	X	X	X									
17	AW-18																	
ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION					DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q3-Rev 0				In Pocatello		8/21/23	1707	V. L.					8/22/23	700	0.6	Y	N	Y

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Aaron Penner				
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	08/21/23		

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 2 of 2		
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey						
Address: 1349 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY					
		Address: see Section A	NPDES	GROUND WATER	DRINKING WATER			
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER			
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location					
Requested Due Date/TAT:	10 day	Project Number: 2285	STATE:	IL				

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	Preservatives # OF CONTAINERS	COLLECTED		SAMPLE TEMP AT COLLECTION	Requested Analysis Filtered (Y/N)						Residual Chlorine (Y/N)	Project No./ Lab I.D.	
				MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)		DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl			NaOH
1	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	DW													
2	AW-19	WT													
3	AW-20	WT													
4	AW-21	WT													
5	AW-23	WT													
6	EMW-05	WT													
7	SG-01	WT													
8	SG-02	WT													
9	SG-03	WT													
10	XPW01A	WT	6	8/21/23	15:15	X	X	X	X	X	X				
11	XPW02	WT	6	8/21/23	15:15	X	X	X	X	X	X				
12	XPW03	WT	6	8/21/23	15:15	X	X	X	X	X	X				
13	Field Blank	WT	6	8/21/23	14:28	X	X	X	X	X	X				
14	AW 16 Dup	WT	6	8/21/23	15:15	X	X	X	X	X	X				
15	XPW01A Dup	WT	6	8/21/23	15:15	X	X	X	X	X	X				
16															
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS				
EDW-23Q3-Rev 0			<i>[Signature]</i>		8/20/23	17:07	<i>[Signature]</i>		8/22/23	7:00	0.6	Y	N	Y	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed

(MM/DD/YY): 08/21/23

Temp in °C	Received on Ice (Y/N)	Custody Sealed	Cooler (Y/N)	Samples Intact (Y/N)

GTO4366
VMW 8-22-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2		
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey				
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp		REGULATORY AGENCY		
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A		NPDES	GROUND WATER	DRINKING WATER
Phone: (217) 753-8911	Fax:	Project Name:		Quote Reference:		UST	RCRA	OTHER
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:		SITE Location:	IL	
STATE:				Profile #:				

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / ,.) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		MATRIX CODE (use valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Project No./ Lab I.D.
		MATRIX	CODE			DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ SO ₃		MeOHanol	Other	↓ Analysis Test ↓	EDW-257-301		
1	AP05S																					
2	AP07S																					
3	APW-01																					
4	AW-01																					
5	AW-05																					
6	AW-06																					
7	AW-08																					
8	AW-09																					
9	AW-10																					
10	AW-11																					
11	AW-14																					
12	AW-15																					
13	AW-15S																					
14	AW-16	WT	G	8/21/23	1428	15	X X X		10													
15	AW-17	WT	G	8/21/23	1601	15	X X X		10													
16	AW-18																					

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q3-Rev 0		<i>[Signature]</i>		8/21/23	1707	<i>V. L. [Signature]</i>		8/22/23	700	0.6	Y	N	Y

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Code (Y/N)	Samples intact (Y/N)
PRINT Name of SAMPLER:	<i>Aaron Pennington</i>				
SIGNATURE of SAMPLER:		<i>[Signature]</i>			

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

G1104366
MW 8-22-23

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 2 of 2									
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey													
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY												
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER										
Phone: (217) 753-8911	Fax:	Quote Reference:	UST	RCRA	OTHER										
Requested Due Date/TAT: 10 day	Project Name: 2285	Project Manager:	Site Location:	IL											
STATE:															
Requested Analysis Filtered (Y/N)															
ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE (see valid codes below)		COLLECTED		# OF CONTAINERS	Preservatives	Y/N	Analysis Test	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-CAP-301	Residual Chlorine (Y/N)	Project No./ Lab I.D.
		MATRIX	CODE	SAMPLE TYPE (G=GRAB C=COMP)	DATE										
1	AW-19														
2	AW-20														
3	AW-21														
4	AW-23														
5	EMW-05														
6	SG-01														
7	SG-02														
8	SG-03														
9	XPW01A	V7 6	8/21/23	1515											
10	XPW02														
11	XPW03														
12	Field Blank														
13	AW 16 Dup	WT 6	8/21/23	1428											
14	X PW01A Dup	V7 6	8/21/23	1515											
15															
16															
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS					
EDW-23Q3-Rev 0		<i>h jones</i>		8/21/23	1707	<i>V. Lynn</i>		8-22-23	700	0.6	Y	N	Y		
SAMPLER NAME AND SIGNATURE								Temp in °C Received on Ice (Y/N)		Custody Sealed/Coder (Y/N)		Samples intact (Y/N)			
PRINT Name of SAMPLER: <i>Dawn Johnson</i>															
SIGNATURE of SAMPLER: <i>h jones</i>								DATE Signed (MM/DD/YY): 08/21/23							

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

GHO4553
SMW 8-22-23

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2																																		
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey																																						
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp					REGULATORY AGENCY																																	
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A					NPDES GROUND WATER DRINKING WATER																																	
Phone: (217) 753-8911 Fax:	Project Name:	Quote Reference:					UST RCRA OTHER																																	
Requested Due Date/TAT: 10 day	Project Number: 2285	Project Manager:					Site Location: IL STATE:																																	
						Requested Analysis Filtered (Y/N)																																		
ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / .) Sample IDs MUST BE UNIQUE	Valid Matrix Codes <table border="1"><tr><td>MATRIX</td><td>CODE</td></tr><tr><td>DRINKING WATER</td><td>DW</td></tr><tr><td>WATER</td><td>WT</td></tr><tr><td>WASTE WATER</td><td>WW</td></tr><tr><td>PRODUCT</td><td>P</td></tr><tr><td>SOIL/SOLID</td><td>SL</td></tr><tr><td>OIL</td><td>OL</td></tr><tr><td>WIPE</td><td>WP</td></tr><tr><td>AIR</td><td>AR</td></tr><tr><td>OTHER</td><td>OT</td></tr><tr><td>TISSUE</td><td>TS</td></tr></table>	MATRIX	CODE	DRINKING WATER	DW	WATER	WT	WASTE WATER	WW	PRODUCT	P	SOIL/SOLID	SL	OIL	OL	WIPE	WP	AIR	AR	OTHER	OT	TISSUE	TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Analysis Test	Y/N	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-CAP-301	Residual Chlorine (Y/N)	Project No./ Lab I.D.
			MATRIX	CODE																																				
DRINKING WATER	DW																																							
WATER	WT																																							
WASTE WATER	WW																																							
PRODUCT	P																																							
SOIL/SOLID	SL																																							
OIL	OL																																							
WIPE	WP																																							
AIR	AR																																							
OTHER	OT																																							
TISSUE	TS																																							
DATE	TIME																																							
1	AP05S																																							
2	AP07S																																							
3	APW-01																																							
4	AW-01	WT G	8/22/23	1428	15 xx	x																																		
5	AW-05																																							
6	AW-06																																							
7	AW-08																																							
8	AW-09																																							
9	AW-10																																							
10	AW-11																																							
11	AW-14																																							
12	AW-15																																							
13	AW-15S																																							
14	AW-16																																							
15	AW-17																																							
16	AW-18	WT G	8/22/23	1111	15 xx	x																																		
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)																									
EDW-23Q3-Rev 0		<i>[Signature]</i>		8/22/23	1640	<i>[Signature]</i>		8/22/23	1640	18.2	Y					N	Y																							
SAMPLER NAME AND SIGNATURE												PRINT Name of SAMPLER:	<i>[Signature]</i>																											
												SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY):	08/22/23																										

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

GTO4553
VMW 8-22-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:	Section C Invoice Information:
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey	
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A	NPDES GROUND WATER DRINKING WATER
Phone: (217) 753-8911	Fax:	Quote Reference:	UST RCRA OTHER
Requested Due Date/TAT: 10 day	Project Name: Project Number: 2285	Project Manager: Profile #:	Site Location: STATE: IL

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	Preservatives						Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Project No./ Lab I.D.		
		MATRIX	CODE			DATE	TIME		# OF CONTAINERS	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH		Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test			EDW-257-301	EDW-845-301
1	AW-19	WT	6	8/22/23	1257	15	X	X	X					X		EDW-257-301							
2	AW-20	WT	6	8/22/23	1434	15	X	X	X					X		EDW-845-301							
3	AW-21	WT	6	8/22/23	1604	15	X	X	X					X		EDW-SUP-000							
4	AW-23																EDW-CAP-301						
5	EMW-05																						
6	SG-01																						
7	SG-02																						
8	SG-03																						
9	XPW01A																						
10	XPW02	WT	6	8/22/23	1557	15	X	X	X					X									
11	XPW03																						
12	Field Blank	WT	6	8/22/23	1111	15	X	X	X					X									
13	A VOI Dvp	WT	8	8/22/23	1428	15	X	X	X					X									
14																							
15																							
16																							
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE	TIME	ACCEPTED BY / AFFILIATION			DATE	TIME	SAMPLE CONDITIONS										
EDW-23Q3-Rev 0			<i>[Signature]</i>			8/22/23	1640	<i>[Signature]</i>			8/22/23	1640											
SAMPLER NAME AND SIGNATURE																							
PRINT Name of SAMPLER: <i>Aaron Remerton</i>																							
SIGNATURE of SAMPLER: <i>[Signature]</i>															DATE Signed (MM/DD/YY): 08/22/23								
															Temp in °C	Received on ice (Y/N)	Custody Sealed Coder (Y/N)	Samples Intact (Y/N)					

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

GH04572
VMW 8-22-23

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2								
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey										
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp		REGULATORY AGENCY								
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A		NPDES	GROUND WATER							
Phone: (217) 753-8911		Fax:		Quote Reference:		UST	DRINKING WATER							
Requested Due Date/TAT: 10 day		Project Name: Project Number: 2285		Project Manager: Profile #:		RCRA	OTHER							
						Site Location: IL	STATE:							
						Requested Analysis Filtered (Y/N)								
ITEM #	Section D Required Client Information		COLLECTED		# OF CONTAINERS	Preservatives	Y/N	Analysis Test	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-CAP-301	Residual Chlorine (Y/N)	Project No./Lab I.D.
	Valid Matrix Codes		MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)										
1	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		DW											
2	AP05S		WT	G	8/22/23	14:28	15	X	X	X				
3	AP07S													
4	APW-01													
5	AW-01													
6	AW-05													
7	AW-06													
8	AW-08													
9	AW-09													
10	AW-10													
11	AW-11													
12	AW-14													
13	AW-15													
14	AW-15S													
15	AW-16													
16	AW-17													
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS				
EDW-23Q3-Rev 0		<i>[Signature]</i>		8/22/23	1640	<i>V. Wm</i>		8/22/23	1640	N	Y	N	Y	
SAMPLE NAME AND SIGNATURE														
PRINT Name of SAMPLER: <i>Aaron Rimberton</i>														
SIGNATURE of SAMPLER: <i>[Signature]</i> DATE Signed (MM/DD/YY): 08/22/23														
Temp in °C		Received in Ice (Y/N)		Custody Sealed (Y/N)		Samples In tact (Y/N)								

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

GHT04572
vnu 8.22.23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey			
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY		
		Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location:	IL	
Requested Due Date/TAT:	10 day	Project Number: 2285	STATE:		

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: MATRIX CODE	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./Lab I.D.		
				SAMPLE CODE (G-GRAB C-COMP)	SAMPLE TYPE				DATE	TIME			Y/N	Analysis Test
1	AW-19	WT	6	8/22/23	1257	15	X X X	H ₂ SO ₄	EDW-257-301					
2	AW-20	WT	6	8/22/23	1434	15	X X X	HNO ₃	EDW-845-301					
3	AW-21	WT	6	8/22/23	1604	15	X X X	HCl	EDW-SUP-000					
4	AW-23							NaOH	EDW-CAP-301					
5	EMW-05							Na ₂ SO ₃						
6	SG-01							Methanol						
7	SG-02							Other						
8	SG-03													
9	XPW01A													
10	XPW02	WT	6	8/22/23	1557	15	X X X							
11	XPW03													
12	Field Blank	WT	6	8/22/23	1111	15	X X X							
13	A VOI Dwp	WT	6	8/22/23	1428	15	X X X							
14														
15														
16														
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q3-Rev 0			<i>[Signature]</i>		8/22/23	1640	<i>[Signature]</i>		8.22.23	1640	18.2	Y	N	Y

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples In tact (Y/N)
PRINT Name of SAMPLER:	<i>Aaron Remerton</i>				
SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YYYY):	08/22/23		

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

0704842
VMW 8-23-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A
Required Client Information:

Section B
Required Project Information:

Section C
Invoice Information:

Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey	REGULATORY AGENCY		
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Quote Reference:	Site Location:	IL	STATE:
Requested Due Date/TAT: 10 day		Project Name: Project Number: 2285	Profile #:		

ITEM #	Section D Required Client Information	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE CODE DW WT WW P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Y/N Analysis Test	Y/N	Residual Chlorine (Y/N)	Project No./ Lab I.D.		
					DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol					Other	
1		AP05S	WT G	8/23/23 1304			15	X	XX						X		EDW-257-301			
2		AP07S	WT G	8/23/23 1442			15	X	XX						X		EDW-845-301			
3		APW-01	WT G	8/23/23 1442			15	X	XX								EDW-SUP-000			
4		AW-01															EDW-CAP-301			
5		AW-05																		
6		AW-06																		
7		AW-08																		
8		AW-09																		
9		AW-10																		
10		AW-11																		
11		AW-14	WT G	8/23/23 1553			15	X	XX						X					
12		AW-15	WT G	8/23/23 1255			15	X	XX						X					
13		AW-15S	WT G	8/23/23 1425			15	X	XX						X					
14		AW-16																		
15		AW-17																		
16		AW-18																		
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS									
EDW-23Q3-Rev 0					8/23/23	1624			8/23/23	1634	Temp in °C	11.7	Y	N	Y	Received on ice (Y/N)		Custody Sealed C.Boiler (Y/N)		Samples intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY): 08/23/23

GHO4842
Vmw 8-23-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey			
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY		
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Phone: (217) 753-8911	Fax:	Quote Reference:	UST	RCRA	OTHER
Requested Due Date/TAT: 10 day		Project Name:	Project Manager:	Site Location:	STATE: IL
		Project Number: 2285	Profile #:		

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Y/N	Analysis Test ↓	Y/N	Residual Chlorine (Y/N)	Project No./ Lab I.D.
		MATRIX	CODE							DATE	TIME	H ₂ SO ₄	HNO ₃	HCl	NaOH					
1	AW-19																			
2	AW-20																			
3	AW-21																			
4	AW-23	WT	V	8/23/23	10xN		IS	X	X		X									
5	EMW-05																			
6	SG-01																			
7	SG-02																			
8	SG-03																			
9	XPW01A																			
10	XPW02																			
11	XPW03																			
12	Field Blank																			
13	EBO1	WT	V	8/23/23	1600		IS	X	X		X									
14																				
15																				
16																				
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS										
EDW-23Q3-Rev 0		<i>a. Voelker</i>		8/23/23	1634	<i>Aaron Penberton</i>		8-23-23	1634	11.7	Y	N	Y							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY):

08/23/23

Temp in °C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Samples Intact (Y/N)
------------	-----------------------	----------------------	----------------------

GHO4878
VMW 8:24:23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey			
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp		REGULATORY AGENCY	
				Address: see Section A		NPDES GROUND WATER DRINKING WATER	
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Quote Reference:		UST RCRA OTHER	
Phone: (217) 753-8911 Fax:		Project Name:		Project Manager:		Site Location STATE: IL	
Requested Due Date/TAT: 10 day		Project Number: 2285		Profile #:			

ITEM #	Section D Required Client Information	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	MATRIX CODE (use valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Project No./ Lab I.D.
						DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	MeOH		Other	Analysis Test ↓	EDW-257-301	EDW-845-301		
1		AP05S	WT	G	8/23/23	1304			15	X	XX											
2		AP07S	WT	G	8/23/23	1447			15	X	XY											
3		APW-01	WT	G	8/23/23	1447			15	X	YY											
4		AW-01																				
5		AW-05																				
6		AW-06																				
7		AW-08																				
8		AW-09																				
9		AW-10																				
10		AW-11																				
11		AW-14	WT	G	8/23/23	1553			15	X	XX											
12		AW-15	WT	G	8/23/23	1255			15	X	XY											
13		AW-15S	WT	G	8/23/23	1425			15	X	XY											
14		AW-16																				
15		AW-17																				
16		AW-18																				
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS											
EDW-23Q3-Rev 0			<i>R. Voelker</i>		8/23/23	1624	<i>Valley</i>		8/23/23	1634	117	Y	N	Y	Temp in °C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Samples intact (Y/N)				

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER: <i>Aaron Pennington</i>	
SIGNATURE of SAMPLER: <i>Aaron Pennington</i>	
DATE Signed (MM/DD/YY): 08/23/23	

GHO4878
VMW 8-24-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey		NPDES	GROUND WATER
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp		DRINKING WATER	
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A	Quote Reference:	UST	RCRA
Phone: (217) 753-8911	Project Name:	Project Manager:	Profile #:	OTHER	
Requested Due Date/TAT: 10 day	Project Number: 2285	STATE: IL			

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOLIDSOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Y/N	Requested Analysis Filtered (Y/N)						Residual Chlorine (Y/N)	Project No./ Lab I.D.
				DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ SO ₄	Methanol		Other	Analysis Test	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-CAP-301		
1	AW-19									X												
2	AW-20																					
3	AW-21																					
4	AW-23	WT	8/23/23	10AM			15	X	XX	X												
5	EMW-05																					
6	SG-01																					
7	SG-02																					
8	SG-03																					
9	XPW01A																					
10	XPW02																					
11	XPW03																					
12	Field Blank																					
13	EBO1	WT	8/23/23	1600			15	X	XX	X												
14																						
15																						
16																						
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS											
EDW-23Q3-Rev 0			<i>[Signature]</i>		8/23/23	1634	<i>[Signature]</i>		8-23-23	1634	11.7	V	N	Y	Temp in °C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Samples intact (Y/N)				

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Aaron Pemberton
SIGNATURE of SAMPLER:	<i>[Signature]</i>
DATE Signed (MM/DD/YY): 08/23/23	

GHO5495
Vmw 8-29-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Report To: Brian Voelker			Attention: Jason Stuckey	
Address: 13498 E. 900th St	Copy To: Jason Stuckey			Company Name: Vistra Corp	REGULATORY AGENCY
				Address: see Section A	NPDES GROUND WATER DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:			Quots Reference:	UST RCRA OTHER
Phone: (217) 753-8911	Fax:	Project Name:		Project Manager:	
Requested Due Date/TAT: 10 day	Project Number: 2285			Profile #:	Site Location STATE: IL

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes <small>MATRIX CODE</small> <small>DW WT WW P SL OL WP AR OT TS</small>	MATRIX CODE (see valid codes to left) <small>G=GRAB C=COMP</small>	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)				
				DATE	TIME									
										Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH
1	AP05S													
2	AP07S	WT	6	8/28/23	1047		15	XXX	X					
3	APW-01													
4	AW-01													
5	AW-05	WT	6	8/28/23	1449		15	XX	X					
6	AW-06	WT	6	8/28/23	1610		15	XX	X					
7	AW-08	WT	6	8/28/23	1440		15	XX	X					
8	AW-09													
9	AW-10	WT	6	8/28/23	1304		15	XX	X					
10	AW-11	WT	6	8/28/23	1110		15	XX	X					
11	AW-14													
12	AW-15													
13	AW-15S													
14	AW-16													
15	AW-17													
16	AW-18													
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS				
EDW-23Q3-Rev 0				08/28/23	1701			08/29/23	700	29	Y	N	Y	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

Aaron Remker

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY): 08/28/23

Temp in °C	Received on ice (Y/N)	Custody Sealed/Cooled (Y/N)	Samples intact (Y/N)
------------	-----------------------	-----------------------------	----------------------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

GH05495
VMW 8-29-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey			
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY		
		Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location:	IL	
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:	STATE:		

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 /,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Y/N	Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./Lab I.D.
					DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	EDW-257-301	EDW-845-301	EDW-SUP-000		EDW-CAP-301			
1	AW-19																						
2	AW-20																						
3	AW-21																						
4	AW-23																						
5	EMW-05	WT	6	8/28/23	1320		15	XXX	X														
6	SG-01																						
7	SG-02																						
8	SG-03																						
9	XPW01A																						
10	XPW02																						
11	XPW03	WT	6	8/28/23	1616		15	XXX	X														
12	Field Blank																						
13	EB 02	WT	6	8/28/23	1625		15	XXX	X														
14																							
15																							
16																							

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q3-Rev 0				08/28/23	1701			8/29/23	700	2.9	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY): 08/28/23

Temp in °C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Sample Intact (Y/N)
------------	-----------------------	----------------------	---------------------

GT05497
MW 8-29-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2		
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey						
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY					
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER			
Phone: (217) 753-8911	Fax:	Quote Reference:	UST	RCRA	OTHER			
Requested Due Date/TAT:	10 day	Project Name:	Project Manager:	Site Location:	STATE:	IL		
Project Number:	2285	Profile #:						

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	Matrix Code (new valid codes to left) DW WT WW P SL CL WP AR OT T3	SAMPLE TYPE (GCRB# CJCAMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Project No./Lab I.D.
					DATE	TIME					EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-CAP-301		
1	AP05S	V1	8/28/23	1047	15	XXX	X									
2	AP07S	V1	8/28/23	1047	15	XXX	X									
3	APW-01															
4	AW-01															
5	AW-05	V1	8/28/23	1449	15	XXX	X									
6	AW-06	V1	8/28/23	1610	15	XXX	X									
7	AW-08	V1	8/28/23	1440	15	XXX	X									
8	AW-09															
9	AW-10	V1	8/28/23	1304	15	XXX	X									
10	AW-11	V1	8/28/23	1110	15	XXX	X									
11	AW-14															
12	AW-15															
13	AW-15S															
14	AW-16															
15	AW-17															
16	AW-18															
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS						
EDW-23Q3-Rev 0		<i>[Signature]</i>		08/28/23	1701	<i>[Signature]</i>		8/29/23	700	29	Y	N				

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	
SIGNATURE of SAMPLER:	
<i>Aaron Remker</i>	DATE Signed (MM/DD/YYYY): 08/28/23
Temp In °C	Received on loc (Y/N)
Cumulative Sample Count (Y/N)	Sample intact (Y/N)

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND**

EDW-257-30

SHAIN-O-F-CUSTODY / Analytical Request Document

GTHOS632
MW 8-29-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Report To: Brian Voelker			Attention: Jason Stuckey	
Address: 13498 E. 900th St	Copy To: Jason Stuckey			Company Name: Vistra Corp	REGULATORY AGENCY
				Address: see Section A	NPDES GROUND WATER DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:			Quote Reference:	UST RCRA OTHER
Phone: (217) 753-8911	Fax:	Project Name:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number: 2285		Profile #:	
STATE:	IL				

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / .) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Project No./Lab I.D.
				SAMPLE TYPE (G=GRAB C=COMP)	DATE			TIME	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol		Other	↓ Analysis Test ↓	EDW-257-301	EDW-845-301		
1	AP05S																				
2	AP07S																				
3	APW-01																				
4	AW-01																				
5	AW-05																				
6	AW-06																				
7	AW-08																				
8	AW-09	8/29/23	1150	15																	
9	AW-10																				
10	AW-11																				
11	AW-14																				
12	AW-15																				
13	AW-15S																				
14	AW-16																				
15	AW-17																				
16	AW-18																				
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS										
EDW-23Q3-Rev 0			<i>Joe Reed</i>		1409	8/29/23	<i>V. L. Johnson</i>		1409	8/29/23	1409	8/29/23	1.7	Y	N	Y	Temp in °C	Received on Ice (Y/N)	Custody Sealed/Cooler (Y/N)	Samples intact (Y/N)	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY):

8/29/23

GTH05632
VMW 8-29-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey			
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY		
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Phone: (217) 753-8911	Fax:	Quote Reference:	UST	RCRA	OTHER
Requested Due Date/TAT: 10 day	Project Name: 2285	Project Manager:	Site Location:	IL	
Profile #:		STATE:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							↓ Analysis Test ↓	Y/N	Residual Chlorine (Y/N)	Project No./Lab I.D.
					DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other				
1	AW-19																		
2	AW-20																		
3	AW-21																		
4	AW-23																		
5	EMW-05				8/29/23 1247			1		X									
6	SG-01																		
7	SG-02																		
8	SG-03																		
9	XPW01A																		
10	XPW02																		
11	XPW03																		
12	Field Blank																		
13																			
14																			
15																			
16																			

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS		
EDW-23Q3-Rev 0		Joe Reed	8/29/23 1409		Vault	8/29/23 1409	1.7	✓	N	✓

SAMPLER NAME AND SIGNATURE				Temp in °C	Received on Ice (Y/N)	Custody Sealed/Cooled (Y/N)	Samples intact (Y/N)
PRINT Name of SAMPLER:	Joe Reed		SIGNATURE of SAMPLER:				
				DATE Signed (MM/DD/YY):	8/29/23		

GHO5671
JMW 8-29-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey		Company Name: Vistra Corp	REGULATORY AGENCY		
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Address: see Section A		NPDES	GROUND WATER	DRINKING WATER	
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:		UST	RCRA	OTHER	
Phone: (217) 753-8911	Fax:	Project Manager:		Site Location:	IL		
Requested Due Date/TAT:	10 day	Project Number: 2265	Profile #:	STATE:			

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	Matrix Code (use valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Project No./Lab I.D.
				MATRIX CODE	SAMPLE TYPE (G-C-GAS C-COMM)			DATE	TIME	H ₂ SO ₄	HNO ₃	HCl	NaOH			
1	AP05S															
2	AP07S															
3	APW-01															
4	AW-01															
5	AW-05															
6	AW-06															
7	AW-08															
8	AW-09			8/29/23	1150	15										
9	AW-10															
10	AW-11															
11	AW-14															
12	AW-15															
13	AW-15S															
14	AW-16															
15	AW-17															
16	AW-18															
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS						
EDW-23Q3-Rev 0		Joe R. Reed		1409	8/29/23	V. D.		1409	8/29/23	17	Y	N	Y			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY):

8/29/23

Temp in °C	Received on Ice (Y/N)	Custody Sealed/Cooker (Y/N)	Sample Infect (Y/N)



Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

October 11, 2023

Brian Voelker
Vistra - Edwards
604 Pierce Boulevard
O'Fallon, IL 62269

Dear Brian Voelker:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

A handwritten signature in black ink that reads "Diane Billings".

Diane Billings
Project Manager

**SAMPLE RECEIPT CHECK LIST****Items not applicable will be marked as in compliance**

Work Order GH04366

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH04572

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH04878

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order GH05497

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GH05671

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



ANALYTICAL RESULTS

Sample: GH04366-01 **Sampled:** 08/21/23 14:28
Name: AW-16 **Received:** 08/22/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04366-02 **Sampled:** 08/21/23 16:01
Name: AW-17 **Received:** 08/22/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04366-03 **Sampled:** 08/21/23 15:15
Name: XPW01A **Received:** 08/22/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04366-04 **Sampled:** 08/21/23 14:28
Name: AW 16 DUP **Received:** 08/22/23 07:00
Matrix: Ground Water - Field Duplicate

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis



ANALYTICAL RESULTS

Sample: GH04366-05
Name: XPW01A DUP
Matrix: Ground Water - Field Duplicate

Sampled: 08/21/23 15:15
Received: 08/22/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04572-01
Name: AW-01
Matrix: Ground Water - Grab

Sampled: 08/22/23 14:28
Received: 08/22/23 16:40

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04572-02
Name: AW-18
Matrix: Ground Water - Grab

Sampled: 08/22/23 11:11
Received: 08/22/23 16:40

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04572-03
Name: AW-19
Matrix: Ground Water - Grab

Sampled: 08/22/23 12:57
Received: 08/22/23 16:40

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis



ANALYTICAL RESULTS

Sample: Sampled:
Name: Received:
Matrix:

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04572-05 Sampled: 08/22/23 16:04
Name: AW-21 Received: 08/22/23 16:40
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04572-06 Sampled: 08/22/23 15:57
Name: XPW02 Received: 08/22/23 16:40
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04572-07 Sampled: 08/22/23 11:11
Name: FIELD BLANK Received: 08/22/23 16:40
Matrix: DI Water - Field Blank

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis



Data not pertinent to the compliance monitoring was removed.

**APPENDIX A. ANNUAL GROUNDWATER MONITORING AND COVERAGE REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301**

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800) 752-6651

ANALYTICAL RESULTS

Sample: GH04878-04 **Sampled:** 08/23/23 12:55
Name: AW-15 **Received:** 08/23/23 16:34
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04878-05 **Sampled:** 08/23/23 14:25
Name: AW-15S **Received:** 08/23/23 16:34
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: _____ **Sampled:** _____
Name: _____ **Received:** _____
Matrix: _____

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH04878-07 **Sampled:** 08/23/23 16:00
Name: EB 01 **Received:** 08/23/23 16:34
Matrix: DI Water - Equipment Blank

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis



ANALYTICAL RESULTS

Sample: GH05497-01 **Sampled:** 08/28/23 10:47
Name: AP07S **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH05497-02 **Sampled:** 08/28/23 14:49
Name: AW-05 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH05497-03 **Sampled:** 08/28/23 16:10
Name: AW-06 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH05497-04 **Sampled:** 08/28/23 14:40
Name: AW-08 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis



ANALYTICAL RESULTS

Sample: GH05497-05 **Sampled:** 08/28/23 13:04
Name: AW-10 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH05497-06 **Sampled:** 08/28/23 11:10
Name: AW-11 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: _____ **Sampled:** _____
Name: _____ **Received:** _____
Matrix: _____

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH05497-08 **Sampled:** 08/28/23 16:16
Name: XPW03 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis



ANALYTICAL RESULTS

Sample: GH05497-09 **Sampled:** 08/28/23 16:25
Name: EB 02 **Received:** 08/29/23 07:00
Matrix: DI Water - Equipment Blank

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

Sample: GH05671-01 **Sampled:** 08/29/23 11:50
Name: AW-09 **Received:** 08/29/23 14:09
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Dissolved Gases by GC/FID - Pace Analytical - Indianapolis

ANALYTICAL RESULTS

Sample: GH04366-01 **Sampled:** 08/21/23 14:28
Name: AW-16 **Received:** 08/22/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 3.95 pCi/L 1 0.616 09/18/23 21:28 PACE 904.0 903.0

Sample: GH04366-02 **Sampled:** 08/21/23 16:01
Name: AW-17 **Received:** 08/22/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 2.64 pCi/L 1 0.748 09/18/23 21:28 PACE 904.0 903.0



ANALYTICAL RESULTS

Sample: GH04366-03 **Sampled:** 08/21/23 15:15
Name: XPW01A **Received:** 08/22/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.01	pCi/L			1	0.57	09/18/23 21:28	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt. Juliet, Tn

Rad 226 and 228-
Subcontract 1.01 pCi/L 1 0.57 09/18/23 21:28 PACE 904.0 903.0

Sample: GH04366-04 **Sampled:** 08/21/23 14:28
Name: AW 16 DUP **Received:** 08/22/23 07:00
Matrix: Ground Water - Field Duplicate

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	5.15	pCi/L			1	0.749	09/18/23 21:28	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 5.15 pCi/L 1 0.749 09/18/23 21:28 PACE 904.0 903.0

Sample: GH04366-05 **Sampled:** 08/21/23 15:15
Name: XPW01A DUP **Received:** 08/22/23 07:00
Matrix: Ground Water - Field Duplicate

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.731	pCi/L			1	0.657	09/18/23 21:28	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 0.731 pCi/L 1 0.657 09/18/23 21:28 PACE 904.0 903.0

Sample: GH04572-01 **Sampled:** 08/22/23 14:28
Name: AW-01 **Received:** 08/22/23 16:40
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.13	pCi/L			1	0.545	09/08/23 18:01	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.13 pCi/L 1 0.545 09/08/23 18:01 PACE 904.0 903.0



ANALYTICAL RESULTS

Sample: GH04572-02 **Sampled:** 08/22/23 11:11
Name: AW-18 **Received:** 08/22/23 16:40
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	6.06	pCi/L			1	0.545	09/08/23 18:01	PACE	904.0 903.0

Sample: GH04572-03 **Sampled:** 08/22/23 12:57
Name: AW-19 **Received:** 08/22/23 16:40
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.75	pCi/L			1	0.553	09/08/23 18:01	PACE	904.0 903.0

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.936	pCi/L			1	0.438	09/09/23 00:14	PACE	904.0 903.0

Sample: GH04572-05 **Sampled:** 08/22/23 16:04
Name: AW-21 **Received:** 08/22/23 16:40
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.936	pCi/L			1	0.438	09/09/23 00:14	PACE	904.0 903.0



ANALYTICAL RESULTS

Sample: GH04572-06 **Sampled:** 08/22/23 15:57
Name: XPW02 **Received:** 08/22/23 16:40
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	1.12	pCi/L			1	0.416	09/09/23 00:14	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt. Juliet, Tn

Rad 226 and 228-
Subcontract 1.12 pCi/L 1 0.416 09/09/23 00:14 PACE 904.0 903.0

Sample: GH04572-07 **Sampled:** 08/22/23 11:11
Name: FIELD BLANK **Received:** 08/22/23 16:40
Matrix: DI Water - Field Blank

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.48	pCi/L			1	0.642	09/08/23 23:19	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.48 pCi/L 1 0.642 09/08/23 23:19 PACE 904.0 903.0

Sample: GH04572-08 **Sampled:** 08/22/23 14:28
Name: AW-01 DUP **Received:** 08/22/23 16:40
Matrix: Ground Water - Field Duplicate

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.558	pCi/L			1	0.543	09/08/23 23:19	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 0.558 pCi/L 1 0.543 09/08/23 23:19 PACE 904.0 903.0

Sample: GH04878-01 **Sampled:** 08/23/23 13:04
Name: AP05S **Received:** 08/23/23 16:34
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.4	pCi/L			1	0.661	09/08/23 23:19	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.4 pCi/L 1 0.661 09/08/23 23:19 PACE 904.0 903.0



ANALYTICAL RESULTS

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Sample: GH04878-03

Sampled: 08/23/23 15:53

Name: AW-14

Received: 08/23/23 16:34

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 3.53 pCi/L 1 0.791 09/08/23 23:19 PACE 904.0 903.0

Sample: GH04878-04

Sampled: 08/23/23 12:55

Name: AW-15

Received: 08/23/23 16:34

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 6.12 pCi/L 1 0.62 09/08/23 23:19 PACE 904.0 903.0

Sample: GH04878-05

Sampled: 08/23/23 14:25

Name: AW-15S

Received: 08/23/23 16:34

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.02 pCi/L 1 0.589 09/08/23 23:19 PACE 904.0 903.0



ANALYTICAL RESULTS

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<hr/>									
Sample: GH04878-07							Sampled: 08/23/23 16:00		
<hr/>									
Name: EB 01							Received: 08/23/23 16:34		
Matrix: DI Water - Equipment Blank									
<hr/>									
Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<hr/>									
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.103 U	pCi/L			1	0.781	09/08/23 23:19	PACE	904.0 903.0
<hr/>									
Sample: GH05497-01							Sampled: 08/28/23 10:47		
Name: AP07S							Received: 08/29/23 07:00		
Matrix: Ground Water - Grab									
<hr/>									
Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<hr/>									
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.26	pCi/L			1	0.483	09/22/23 14:40	PACE	904.0 903.0
<hr/>									
Sample: GH05497-02							Sampled: 08/28/23 14:49		
Name: AW-05							Received: 08/29/23 07:00		
Matrix: Ground Water - Grab									
<hr/>									
Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<hr/>									
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0965 U	pCi/L			1	0.919	09/22/23 14:40	PACE	904.0 903.0



ANALYTICAL RESULTS

Sample: GH05497-03 **Sampled:** 08/28/23 16:10
Name: AW-06 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 0.107 U pCi/L 1 0.484 09/22/23 14:40 PACE 904.0 903.0

Sample: GH05497-04 **Sampled:** 08/28/23 14:40
Name: AW-08 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 0.434 J pCi/L 1 0.591 09/22/23 14:40 PACE 904.0 903.0

Sample: GH05497-05 **Sampled:** 08/28/23 13:04
Name: AW-10 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 4.03 pCi/L 1 0.736 09/22/23 14:40 PACE 904.0 903.0

Sample: GH05497-06 **Sampled:** 08/28/23 11:10
Name: AW-11 **Received:** 08/29/23 07:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 2.45 pCi/L 1 0.534 09/22/23 14:40 PACE 904.0 903.0



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit



NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

A handwritten signature in black ink that reads "Diane Billings".

Certified by: Diane Billings, Project Manager





August 31, 2023

Gail Shindler
Pace Peoria
2231 W Altorfer Dr
Peoria, IL 61615

RE: Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

Dear Gail Shindler:

Enclosed are the analytical results for sample(s) received by the laboratory on August 29, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Patterson
heather.patterson@pacelabs.com
(317)228-3146
Project Manager

Enclosures

cc: Diane Billings, Pace IL/MO
Janet Clutters, Pace Analytical Peoria
Taylor Cordle, Pace Analytical Peoria
Jon Robert Handshy, Pace Hazelwood
Amy Holmes, Pace Hazelwood
Chenise Lambert-Sykes, Pace Analytical Peoria
Erin Lane, Pace Peoria
Jennifer Solomon, Pace Analytical Peoria



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

**SAMPLE SUMMARY**

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50352721001	AW-16	Water	08/21/23 14:28	08/29/23 09:30
50352721002	AW-17	Water	08/21/23 16:01	08/29/23 09:30
50352721003	XPW01A	Water	08/21/23 15:15	08/29/23 09:30
50352721004	AW-16 DUP	Water	08/21/23 14:28	08/29/23 09:30
50352721005	XPW01A DUP	Water	08/21/23 15:15	08/29/23 09:30

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

**SAMPLE ANALYTE COUNT**

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50352721001	AW-16	RSK 175 Modified	JRW	3	PASI-I
50352721002	AW-17	RSK 175 Modified	JRW	3	PASI-I
50352721003	XPW01A	RSK 175 Modified	JRW	3	PASI-I
50352721004	AW-16 DUP	RSK 175 Modified	JRW	3	PASI-I
50352721005	XPW01A DUP	RSK 175 Modified	JRW	3	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



SUMMARY OF DETECTION

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
50352721001	AW-16					
50352721002	AW-17					
50352721003	XPW01A					
50352721004	AW-16 DUP					
50352721005	XPW01A DUP					

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

Sample: AW-16	Lab ID: 50352721001	Collected: 08/21/23 14:28	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

Sample: AW-17	Lab ID: 50352721002	Collected: 08/21/23 16:01	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

Sample: XPW01A	Lab ID: 50352721003	Collected: 08/21/23 15:15	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04366/Vistra Edwards

Pace Project No.: 50352721

Sample: AW-16 DUP	Lab ID: 50352721004	Collected: 08/21/23 14:28	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project: GH04366/Vistra Edwards

Pace Project No.: 50352721

Sample: XPW01A DUP	Lab ID: 50352721005	Collected: 08/21/23 15:15	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

QC Batch: 750650 Analysis Method: RSK 175 Modified
QC Batch Method: RSK 175 Modified Analysis Description: RSK 175 HEADSPACE
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50352721001, 50352721002, 50352721003, 50352721004, 50352721005

METHOD BLANK: 3440264 Matrix: Water
Associated Lab Samples: 50352721001, 50352721002, 50352721003, 50352721004, 50352721005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
-----------	-------	--------------	-----------------	----------	------------

LABORATORY CONTROL SAMPLE: 3440265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
-----------	-------	-------------	------------	-----------	--------------	------------

SAMPLE DUPLICATE- 3440448

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
SAMPLE DUPLICATE: 344046		50352721003				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALIFIERS

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GH04366/Vistra Edwards
Pace Project No.: 50352721

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50352721001	AW-16	RSK 175 Modified	750650		
50352721002	AW-17	RSK 175 Modified	750650		
50352721003	XPW01A	RSK 175 Modified	750650		
50352721004	AW-16 DUP	RSK 175 Modified	750650		
50352721005	XPW01A DUP	RSK 175 Modified	750650		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

WO# : 50352721



50352721

State of Origin: IL
Cert. Needed: YES NO

Order Name: VISTRA EDWARDS

Owner Received

Date: 8/22/2023

Results Requ

By: 9/6/2023

Report To:		Customer Information		Requested Analysis	
------------	--	----------------------	--	--------------------	--

DIANE BILLINGS

Pace Analytical - IL/MO
2231 W. Altorfer Drive
Peoria, IL 61615
800-752-6651Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3105

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Method	RSK 175	LAB USE ONLY
1	AW-16	GRAB	8/21/2023 14:28	GH04366-01	GW	X	
2	AW-17	GRAB	8/21/2023 16:01	GH04366-02	GW	X	
3	XPW01A	GRAB	8/21/2023 15:15	GH04366-03	GW	X	
4	AW-16 DUP	GRAB	8/21/2023 14:28	GH04366-04	GW	X	
5	XPW01A DUP	GRAB	8/21/2023 15:15	GH04366-05	GW	X	
6							
7							
8							
9							
10							
11							
12							

Shipment Method	Serial Number	Received By	Shipped Date	Comments
1	8/26/23 0935	FedEx		
2	8-29-23 0930	(Hand Shipped) PACE	8-29-23 0930	
3				Include QC summary and edd

Cooler Temperature on Receipt	1.8 °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	--------	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 08-29-2013 1124

1. Courier: <input checked="" type="checkbox"/> FED EX <input type="checkbox"/> UPS <input type="checkbox"/> CLIENT <input type="checkbox"/> PACE <input type="checkbox"/> NOW/JETT <input type="checkbox"/> OTHER _____	5. Packing Material: <input type="checkbox"/> Bubble Wrap <input checked="" type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input checked="" type="checkbox"/> Other Styrofoam
2. Custody Seal on Cooler/Box Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Ice Type: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None
(If yes)Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (leave blank if no seals were present)	7. If temp. is over 6°C or under 0°C, was the PM notified?: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler temp should be above freezing to 6°C
3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H	All discrepancies will be written out in the comments section below.
4. Cooler Temperature(s): 1.8 / 1.8	
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)	

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED? Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis:		X	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC? Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?			X

COMMENTS:

Sample Container Count

"Place a RED dot on containers
that are out of conformance."

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DGST	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKL	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFL	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
BP2S	500mL H2SO4 plastic	R	Terracore Kit
BP2U	500mL unpreserved plastic	SPST	120mL Coliform Sodium Thiosulfate
BP2Z	500mL NaOH, Zn Ac	GN	General Container
BP3B	250mL NaOH plastic	U	Summa Can (air sample)
BP3N	250mL HNO3 plastic	WT	Water
BP3F	250mL HNO3 plastic-field filtered	SL	Solid
BP3U	250mL unpreserved plastic	OL:	Oil
BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe
BP3R	250mL Unpres FF SO4/OH buffer		

ANALYTICAL REPORT

October 03, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

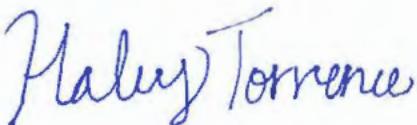
⁸ AI

⁹ Sc

Pace IR - Peoria, IL

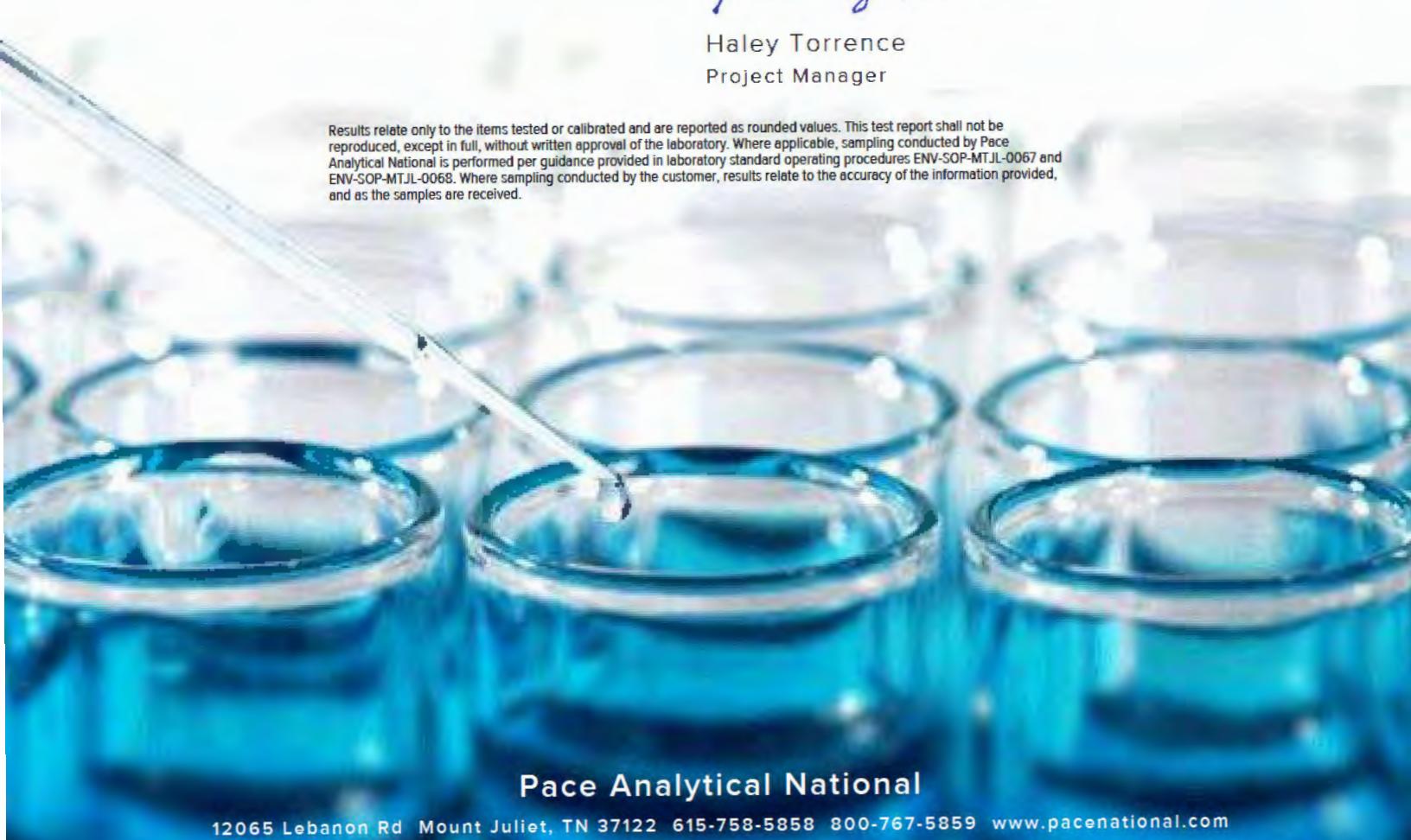
Sample Delivery Group: L1653843
Samples Received: 08/29/2023
Project Number: GH04366
Description: Vistra-Edwards
Site: 001
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:



Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

A close-up photograph of several laboratory glass vials or test tubes filled with a bright blue liquid. A pipette is shown in the foreground, positioned over one of the vials, suggesting a sampling or testing process.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

40

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

TABLE OF CONTENTS

Cp: Cover Page	1	¹Cp
Tc: Table of Contents	2	²Tc
Ss: Sample Summary	3	³Ss
Cn: Case Narrative	4	⁴Cn
Sr: Sample Results	5	⁵Sr
AW-16 L1653843-01	5	
AW-17 L1653843-02	6	
XPW01A L1653843-03	7	
AW 16 DUP L1653843-04	8	
XPW01A DUP L1653843-05	9	
Qc: Quality Control Summary	10	⁶Qc
Radiochemistry by Method 904/9320	10	
Radiochemistry by Method SM7500Ra B M	11	
Gl: Glossary of Terms	12	⁷Gl
Al: Accreditations & Locations	13	⁸Al
Sc: Sample Chain of Custody	14	⁹Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

AW-16 L1653843-01 Non-Potable Water

Collected by Collected date/time Received date/time
 08/21/23 14:28 08/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2132560	1	09/14/23 18:09	09/18/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/18/23 21:28	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN

AW-17 L1653843-02 Non-Potable Water

Collected by Collected date/time Received date/time
 08/21/23 16:01 08/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2132560	1	09/14/23 18:09	09/18/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/18/23 21:28	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 15:33	RGT	Mt. Juliet, TN

XPW01A L1653843-03 Non-Potable Water

Collected by Collected date/time Received date/time
 08/21/23 15:15 08/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2132560	1	09/14/23 18:09	09/18/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/18/23 21:28	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 15:33	RGT	Mt. Juliet, TN

AW 16 DUP L1653843-04 Non-Potable Water

Collected by Collected date/time Received date/time
 08/21/23 14:28 08/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2132560	1	09/14/23 18:09	09/18/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/18/23 21:28	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 15:33	RGT	Mt. Juliet, TN

XPW01A DUP L1653843-05 Non-Potable Water

Collected by Collected date/time Received date/time
 08/21/23 15:15 08/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2132560	1	09/14/23 18:09	09/18/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/18/23 21:28	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 15:33	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

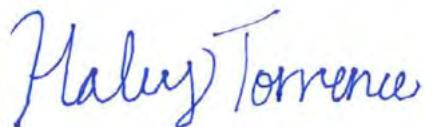
⁷ GI

⁸ AI

⁹ SC

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

AW-16

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
L1653843

Collected date/
09/18/2023

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.18		0.327	0.548	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Barium	107			30.0-143	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Yttrium	104			30.0-136	09/18/2023 21:28	<u>WG2132560</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	3.95		0.602	0.616	09/18/2023 21:28	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.77		0.505	0.281	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	91.9			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

AW-17

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Collected date/time: 09/18/2023 17:33

L1653843

SAMPLE RESULTS - 02
Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.15		0.386	0.667	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Barium	104			30.0-143	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Yttrium	101			30.0-136	09/18/2023 21:28	<u>WG2132560</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.64		0.500	0.748	09/18/2023 21:28	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.494		0.318	0.338	09/15/2023 15:33	<u>WG2130036</u>
(<i>T</i>) Barium-133	92.4			30.0-143	09/15/2023 15:33	<u>WG2130036</u>

XPW01A

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
Collected date/
EDW-257-301

SAMPLE RESULTS - 03

L1653843

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.867		0.242	0.432	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Barium	111			30.0-143	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Yttrium	94.6			30.0-136	09/18/2023 21:28	<u>WG2132560</u>

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.01		0.343	0.570	09/18/2023 21:28	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.144	J	0.243	0.372	09/15/2023 15:33	<u>WG2130036</u>
(<i>T</i>) Barium-133	79.6			30.0-143	09/15/2023 15:33	<u>WG2130036</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.75		0.410	0.695	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Barium	115			30.0-143	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Yttrium	91.2			30.0-136	09/18/2023 21:28	<u>WG2132560</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	5.15		0.734	0.749	09/18/2023 21:28	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	2.41		0.609	0.279	09/15/2023 15:33	<u>WG2130036</u>
(<i>T</i>) Barium-133	86.0			30.0-143	09/15/2023 15:33	<u>WG2130036</u>

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.715		0.286	0.519	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Barium	88.9			30.0-143	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Yttrium	103			30.0-136	09/18/2023 21:28	<u>WG2132560</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.731		0.361	0.657	09/18/2023 21:28	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0164	<u>U</u>	0.221	0.403	09/15/2023 15:33	<u>WG2130036</u>
(<i>T</i>) Barium-133	91.1			30.0-143	09/15/2023 15:33	<u>WG2130036</u>

WG2132560

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Radiochemistry Method 004/0120
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.
QUALITY CONTROL SUMMARY

[L1653843-01,02,03,04,05](#)**Method Blank (MB)**

(MB) R3975641-1 09/18/23 21:28

Analyte	MB Result	<u>MB Qualifier</u>	MB Uncertainty	MB MDA
Radium-228	0.779		+/-	pCi/l
(<i>T</i>) Barium	79.4		79.4	
(<i>T</i>) Yttrium	103		103	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI**L1650771-01 Original Sample (OS) • Duplicate (DUP)**

(OS) L1650771-01 09/18/23 21:28 • (DUP) R3975641-5 09/18/23 21:28

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits	DUP RER Limit
Radium-228	1.80	0.243	0.400	1.93	0.465	0.821	1	6.65	0.236		20	3
(<i>T</i>) Barium	121			84.6	84.6							
(<i>T</i>) Yttrium	92.0			83.2	83.2							

⁹Sc**Laboratory Control Sample (LCS)**

(LCS) R3975641-2 09/18/23 21:28

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Radium-228	5.00	4.90	97.9	80.0-120	
(<i>T</i>) Barium			96.1		
(<i>T</i>) Yttrium			98.1		

L1650762-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1650762-07 09/18/23 21:28 • (MS) R3975641-3 09/18/23 21:28 • (MSD) R3975641-4 09/18/23 21:28

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	MS RER	RPD Limits
Radium-228	10.0	-0.538	8.83	9.60	88.3	96.0	1	70.0-130			8.35		20
(<i>T</i>) Barium		135		126	112								
(<i>T</i>) Yttrium		108		87.6	95.3								

WG2130038

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Radiochemistry Methods SM7500B M
EDWARDS POWER PLANT, ASH POND
EDW-257-301

QUALITY CONTROL SUMMARY

[L1653843-01,02,03,04,05](#)**Method Blank (MB)**

(MB) R3981103-1 09/15/23 15:33

Analyte	MB Result	<u>MB Qualifier</u>	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	0.00320	U	0.0756	0.145
(T) Barium-133	52.0		52.0	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI⁹Sc**L1652263-09 Original Sample (OS) • Duplicate (DUP)**

(OS) L1652263-09 09/15/23 19:27 • (DUP) R3981103-5 09/15/23 15:33

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l	%	%			%	
Radium-226	0.228	0.212	0.264	-0.0166	0.126	0.300	1	200	0.993	U	20	3
(T) Barium-133	107			86.4	86.4							

Laboratory Control Sample (LCS)

(LCS) R3981103-2 09/15/23 15:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	pCi/l	pCi/l	%	%	
Radium-226	5.01	5.62	112	80.0-120	
(T) Barium-133			64.5		

L1651386-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1651386-07 09/15/23 19:27 • (MS) R3981103-3 09/15/23 15:33 • (MSD) R3981103-4 09/15/23 15:33

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%	%	%			%	%	%
Radium-226	20.0	0.799	21.5	17.9	104	85.4	1	75.0-125			18.4		20
(T) Barium-133		92.7			82.5	84.5							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-05-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1c}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	990093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ^c	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA—Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ AI

⁹ SC

Internal Transfer Chain of Custody

State of Origin: IL
Cert. Needed: YES NO

Pace Analytical®
www.pacelabs.com

Workorder: GH04366

Workorder Name: Vistra - Edward

Owner Received

Date: 8/23/2023

Results Review

Printed: 8/15/2023

Report To:	Subcontract To:						Requested Analysis																																																																																																																										
Diane Billings Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651																																																																																																																																	
Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122																																																																																																																																	
<p style="text-align: right;">Radium 226/228</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Item</th> <th rowspan="2">Sample ID</th> <th rowspan="2">Sample Type</th> <th rowspan="2">Collect Date/Time</th> <th rowspan="2">Lab ID</th> <th rowspan="2">Matrix</th> <th colspan="5">Preserved Containers</th> </tr> <tr> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr><td>1</td><td>AW-16</td><td>GRAB</td><td>8/21/2023 14:28</td><td>GH04366-01</td><td>GW</td><td>X</td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td>AW-17</td><td>GRAB</td><td>8/21/2023 16:01</td><td>GH04366-02</td><td>GW</td><td>X</td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td>XPW01A</td><td>GRAB</td><td>8/21/2023 15:15</td><td>GH04366-03</td><td>GW</td><td>X</td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td>AW 16 DUP</td><td>GRAB</td><td>8/21/2023 14:28</td><td>GH04366-04</td><td>GW</td><td>X</td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td>XPW01A DUP</td><td>GRAB</td><td>8/21/2023 15:15</td><td>GH04366-05</td><td>GW</td><td>X</td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers										1	AW-16	GRAB	8/21/2023 14:28	GH04366-01	GW	X					2	AW-17	GRAB	8/21/2023 16:01	GH04366-02	GW	X					3	XPW01A	GRAB	8/21/2023 15:15	GH04366-03	GW	X					4	AW 16 DUP	GRAB	8/21/2023 14:28	GH04366-04	GW	X					5	XPW01A DUP	GRAB	8/21/2023 15:15	GH04366-05	GW	X					6											7											8											9											10											<p>LIL6538</p> <p>LAB USE ONLY</p> <p>-01 -02 -03 -04 -05</p>		
							Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers																																																																																																																				
	1	AW-16	GRAB	8/21/2023 14:28	GH04366-01	GW	X																																																																																																																										
	2	AW-17	GRAB	8/21/2023 16:01	GH04366-02	GW	X																																																																																																																										
	3	XPW01A	GRAB	8/21/2023 15:15	GH04366-03	GW	X																																																																																																																										
	4	AW 16 DUP	GRAB	8/21/2023 14:28	GH04366-04	GW	X																																																																																																																										
	5	XPW01A DUP	GRAB	8/21/2023 15:15	GH04366-05	GW	X																																																																																																																										
	6																																																																																																																																
	7																																																																																																																																
	8																																																																																																																																
9																																																																																																																																	
10																																																																																																																																	
Transfers	Released By		Date/Time	Received By	Date/Time	Comments																																																																																																																											
1				Haily Robertson	8/29/23 09:00	Needs reported as 226, 228 and also combined 226/228																																																																																																																											
2																																																																																																																																	
3						Include QC summary																																																																																																																											

Cooler Temperature on Receipt °C Custody Seal Y or N

Received on Ice Y or N

Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March200

Page 1 of 1

<u>Sample Receipt Checklist</u>		
COC Seal Present/Intact:	<input checked="" type="checkbox"/> N	If Applicable
COC Signed/Accurate:	<input checked="" type="checkbox"/> N	VCA Zero Headspace: <input checked="" type="checkbox"/> Y <u>M</u>
Bottles arrive intact:	<input checked="" type="checkbox"/> N	Pres. Correct/Check: <input checked="" type="checkbox"/>
Correct bottles used:	<input checked="" type="checkbox"/> N	
Sufficient volume sent:	<input checked="" type="checkbox"/> N	
PA Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> N	

Amb

631960053786

Amt

APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND
 EDW-257-301

Internal Transfer Chain of Custody

State of Origin: IL
 Cert. Needed: YES NO



Workorder: GH04366 Workorder Name: Vistra - Edwards Owner Received Date: 8/22/2023 Results Required By: 9/15/2023

Report To:	Subcontract To:	Requested Analysis
Diane Billings Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers					Radium 226/228	LAB USE ONLY
						1	2	3	4	5		
1	AW-16	GRAB	8/21/2023 14:28	GH04366-01	GW					X		-01
2	AW-17	GRAB	8/21/2023 16:01	GH04366-02	GW					X		-02
3	XPW01A	GRAB	8/21/2023 15:15	GH04366-03	GW					X		-03
4	AW 16 DUP	GRAB	8/21/2023 14:28	GH04366-04	GW					X		-04
5	XPW01A DUP	GRAB	8/21/2023 15:15	GH04366-05	GW					X		-05
6												
7												
8												
9												
10												

Transfer/Release #	Date/Time	Released By	Date/Time	Comments
1	8/20/23	Haily Robertson	8/29/23 09:00	Needs reported as 226, 228 and also combined 226/228
2				Include QC summary
3	8/26/23 09:00			

Cooler Temperature on Receipt	*C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	----	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Report Checklist
 COC Seal Present/Intact: If Applicable
 COC Signed Accurate: TGA Jerry Headspace:
 Bottles arrive intact: Pres. Correct Checked:
 Correct bottles used: Sufficient volume sent:
 PA Screen <0.5 µm:

Amb 63190053786

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

U1053843



Ship to :
Pace Analytical - Mt Juliet
12065 Lebanon Rd
Mt Juliet TN 37122

INTER LABORATORY WORK ORDER # GH04366

(To be complete by sending lab)

Sending Project No:	GH04366
Receiving Project No:	
Check Box for Consolidated Invoice:	<input type="checkbox"/>
Date Prepared:	8/31/2023
REQUESTED COMPLETION DATE:	9/15/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Diane Billings
Receiving Region	MT Juliet	External Client	Vistra-Edwards
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		5		5	\$242.10	\$1,210.50
					\$0.00	\$0.00
					\$0.00	\$0.00
						TOTAL \$1,210.50

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$1,210.50	\$968.40	\$242.10
* Custom Revenue Allocation		TOTAL	\$968.40	\$242.10

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: Yes No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.



Ship to :
(To be complete by sending lab)

Pace Analytical - Mt Juliet
12065 Lebanon Rd
Mt Juliet TN 37122

INTER_LABORATORY WORK ORDER # GH04366
(To be complete by sending lab)

Sending Project No.: GH04366

Receiving Project No.: _____

Check Box for Consolidated Invoice: _____

Date Prepared: 8/31/2023

REQUESTED COMPLETION DATE: 9/15/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Diane Billings
Receiving Region	MT Juliet	External Client	Vistra-Edwards
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

Requested Reportable Units: _____ Report Wet or Dry Weight? _____ Cert Needed: _____ IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		5		5	\$242.10	\$1,210.50
					\$0.00	\$0.00
					\$0.00	\$0.00
TOTAL					\$1,210.50	

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$1,210.50	\$968.40	\$242.10
* Custom Revenue Allocation		TOTAL	\$968.40	\$242.10

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: Yes No

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

L1653843



September 11, 2023

Gail Shindler
Pace Peoria
2231 W Altorfer Dr
Peoria, IL 61615

RE: Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Dear Gail Shindler:

Enclosed are the analytical results for sample(s) received by the laboratory on August 29, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
• Pace Analytical Services - Indianapolis

Revised report replaces report dated 08/31/23. Revised to change client sample ID for sample -008 per client request.
091123hmp

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Patterson
heather.patterson@pacelabs.com
(317)228-3146
Project Manager

Enclosures

cc: Diane Billings, Pace IL/MO
Janet Clutters, Pace Analytical Peoria
Taylor Cordle, Pace Analytical Peoria
Jon Robert Handshy, Pace Hazelwood
Amy Holmes, Pace Hazelwood
Chenise Lambert-Sykes, Pace Analytical Peoria
Erin Lane, Pace Peoria
Jennifer Solomon, Pace Analytical Peoria



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



SAMPLE SUMMARY

Project: GH04572/VISTRA EDWARDS

Pace Project No.: 50352712

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50352712001	AW-01	Water	08/22/23 14:28	08/29/23 09:30
50352712002	AW-18	Water	08/22/23 11:11	08/29/23 09:30
50352712003	AW-19	Water	08/22/23 12:57	08/29/23 09:30
50352712005	AW-21	Water	08/22/23 16:04	08/29/23 09:30
50352712006	XPW02	Water	08/22/23 15:57	08/29/23 09:30
50352712007	FIELD BLANK	Water	08/22/23 11:11	08/29/23 09:30
50352712008	AW-01 DUP	Water	08/22/23 14:28	08/29/23 09:30

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



SAMPLE ANALYTE COUNT

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50352712001	AW-01	RSK 175 Modified	JRW	3	PASI-I
50352712002	AW-18	RSK 175 Modified	JRW	3	PASI-I
50352712003	AW-19	RSK 175 Modified	JRW	3	PASI-I
50352712005	AW-21	RSK 175 Modified	JRW	3	PASI-I
50352712006	XPW02	RSK 175 Modified	JRW	3	PASI-I
50352712007	FIELD BLANK	RSK 175 Modified	JRW	3	PASI-I
50352712008	AW-01 DUP	RSK 175 Modified	JRW	3	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



SUMMARY OF DETECTION

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
50352712001	AW-01					
50352712002	AW-18					
50352712003	AW-19					
50352712006	XPW02					
50352712008	AW-01 DUP					

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Sample: AW-01	Lab ID: 50352712001	Collected: 08/22/23 14:28	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Sample: AW-18	Lab ID: 50352712002	Collected: 08/22/23 11:11	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Sample: AW-19	Lab ID: 50352712003	Collected: 08/22/23 12:57	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace			Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis					

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Sample: AW-21	Lab ID: 50352712005	Collected: 08/22/23 16:04	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Sample: XPW02	Lab ID: 50352712006	Collected: 08/22/23 15:57	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Sample: FIELD BLANK	Lab ID: 50352712007	Collected: 08/22/23 11:11	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

Sample: AW-01 DUP	Lab ID: 50352712008	Collected: 08/22/23 14:28	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

QC Batch: 750650 Analysis Method: RSK 175 Modified
QC Batch Method: RSK 175 Modified Analysis Description: RSK 175 HEADSPACE
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50352712001, 50352712002, 50352712003, 50352712004, 50352712005, 50352712006, 50352712007,
50352712008

METHOD BLANK: 3440264 Matrix: Water

Associated Lab Samples: 50352712001, 50352712002, 50352712003, 50352712004, 50352712005, 50352712006, 50352712007, 50352712008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
-----------	-------	--------------	-----------------	----------	------------

LABORATORY CONTROL SAMPLE 3440265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
-----------	-------	-------------	------------	-----------	--------------	------------

SAMPLE DUPLICATE: 3440448

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
		50352721003				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALIFIERS

Project: GH04572/VISTRA EDWARDS
Pace Project No.: 50352712

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GH04572/VISTRA EDWARDS

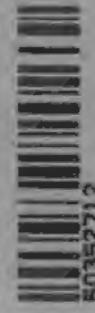
Pace Project No.: 50352712

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50352712001	AW-01	RSK 175 Modified	750650		
50352712002	AW-18	RSK 175 Modified	750650		
50352712003	AW-19	RSK 175 Modified	750650		
50352712005	AW-21	RSK 175 Modified	750650		
50352712006	XPW02	RSK 175 Modified	750650		
50352712007	FIELD BLANK	RSK 175 Modified	750650		
50352712008	AW-01 DUP	RSK 175 Modified	750650		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50352712



Inte

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

Pace Analytical
www.paceanalytical.com

Workorder:	GH04572	Workorder Name:	VISTRA EDWARDS	Owner Received Date:	8/23/2023	By:	Results Requested Analysis	Results Req'd	State of Origin: IL	Cert. Needed: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Report To:		Subcontract To:								
DIANE BILLINGS										
Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651										
Pace Analytical Services, LLC 7726 Moller Road Indianapolis, IN 46268 (317)228-3105										
Prepared Container Refs: RSK 175										
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix					LAB USE ONLY
1	AW-01	GRAB	8/22/2023 14:28	GH04572-01	GW					001
2	AW-18	GRAB	8/22/2023 11:11	GH04572-02	GW					002
3	AW-19	GRAB	8/22/2023 12:57	GH04572-03	GW					003
4	AW-20	GRAB	8/22/2023 14:34	GH04572-04	GW					004
6	XPM02	GRAB	8/22/2023 15:57	GH04572-06	GW					006
7	FIELD BLANK	GRAB	8/22/2023 11:11	GH04572-07	GW					007
8	AW-01-DUPLICATE CPS 9-8-23	GRAB	8/22/2023 14:28	GH04572-08	GW					008
9										
10										
11										
12	Transfers Received By		Date/Time	Received By		Date/Time	Comments			
1			8/26/23 09:35	FedEx						
2			8/26/23 09:30	Mitch Shultz / PLACE		8/29/23 09:30				
3							Include QC summary and edd			

Received on site Y or N Sample intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 08-29-2013 1124

1. Courier: <input checked="" type="checkbox"/> FED EX <input type="checkbox"/> UPS <input type="checkbox"/> CLIENT <input type="checkbox"/> PACE <input type="checkbox"/> NOW/JETT <input type="checkbox"/> OTHER _____	5. Packing Material: <input type="checkbox"/> Bubble Wrap <input checked="" type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input checked="" type="checkbox"/> Other Styrofoam
2. Custody Seal on Cooler/Box Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes)Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (leave blank if no seals were present)	6. Ice Type: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None
3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H	7. If temp. is over 6°C or under 0°C, was the PM notified?: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler temp should be above freezing to 6°C
4. Cooler Temperature(s): 1.8 / 1.8 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)	

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED? Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			X
Short Hold Time Analysis (48 hours or less)? Analysis:		X				X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	X		No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC? Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?			X

COMMENTS:

Sample Container Count

** Place a RED dot on containers

that are out of conformance **

COC Line Item	WG FU	WG KU	BG 1U	DG 9H	VG 9H	VOA HS >6mm	MeOH (only)	SBS	DI	AMBER GLASS				PLASTIC				OTHER				Matrix						
	R									AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit
	1																											
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Container Codes

Glass			
DG9H	40mL HCl amber vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WG FU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic			
BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic	Miscellaneous	
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
BP2S	500mL H2SO4 plastic	R	Terracore Kit
BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
BP2Z	500mL NaOH, Zn Ac	GN	General Container
BP3B	250mL NaOH plastic	U	Summa Can (air sample)
BP3N	250mL HNO3 plastic	WT	Water
BP3F	250mL HNO3 plastic-field filtered	SL	Solid
BP3U	250mL unpreserved plastic	OL	Oil
BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe
BP3R	250mL Unpres FF SO4/OH buffer		

ANALYTICAL REPORT

September 13, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ AI

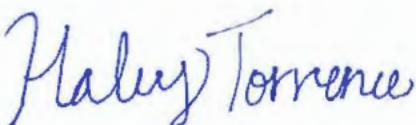
⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1650654
Samples Received: 08/29/2023
Project Number: GH04572
Description: VISTRA EDWARDS

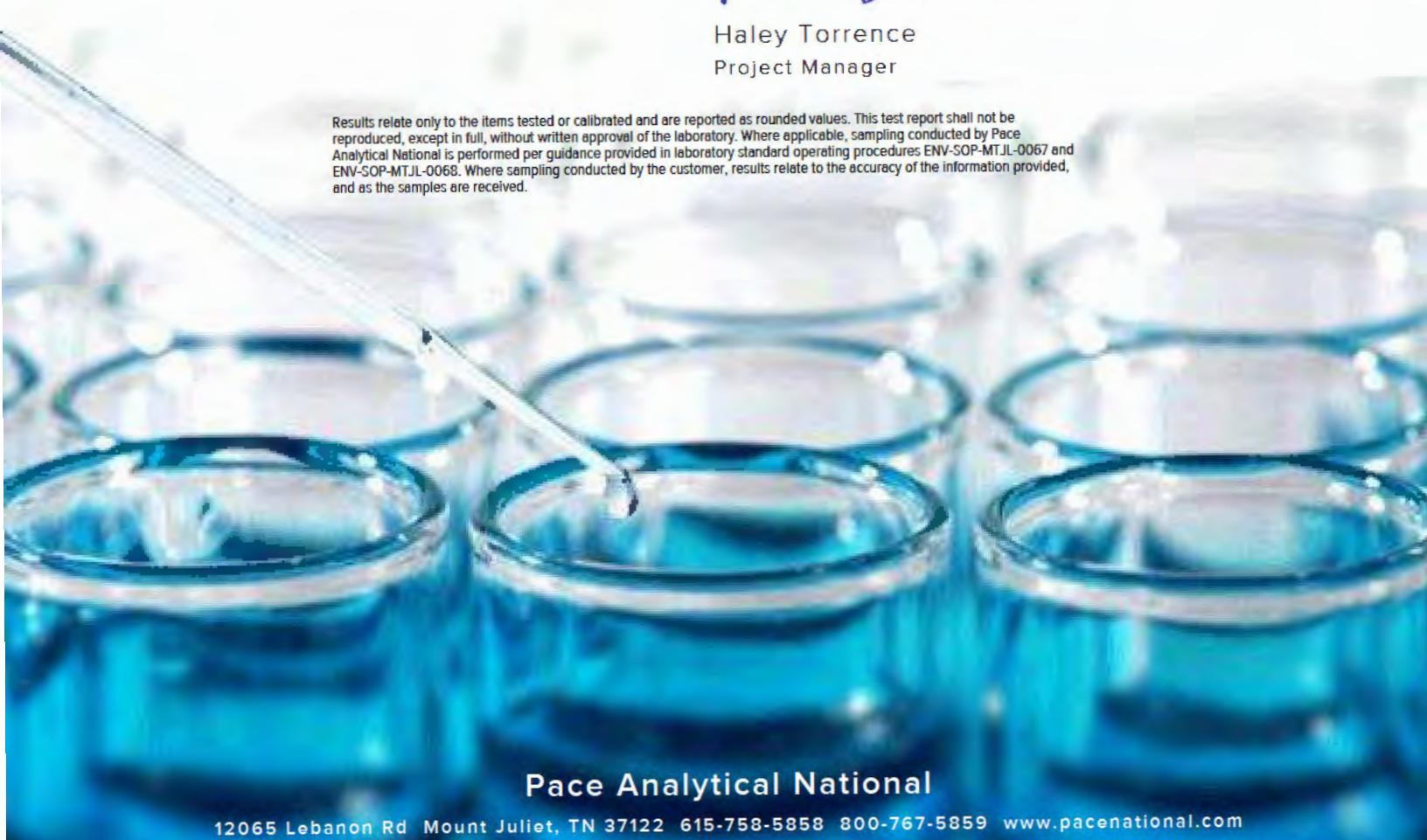
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:



Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

A close-up photograph of several laboratory glass vials or test tubes filled with a bright blue liquid. A pipette is shown in the foreground, positioned over one of the vials, suggesting a sampling or testing process.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

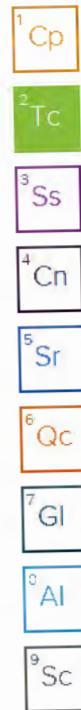
70

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
AW-01 L1650654-01	6
AW-18 L1650654-02	7
AW-19 L1650654-03	8
	9
AW-21 L1650654-05	10
XPW02 L1650654-06	11
FIELD BLANK L1650654-07	12
AW-01 DUP L1650654-08	13
Qc: Quality Control Summary	14
Radiochemistry by Method 904/9320	14
Radiochemistry by Method SM7500Ra B M	15
G1: Glossary of Terms	16
AI: Accreditations & Locations	17
Sc: Sample Chain of Custody	18

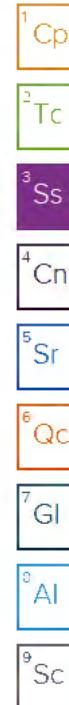


APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

SAMPLE SUMMARY

AW-01 L1650654-01 Non-Potable Water				Collected by	Collected date/time	Received date/time
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 18:01	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 18:01	RGT	Mt. Juliet, TN
AW-18 L1650654-02 Non-Potable Water				Collected by	Collected date/time	Received date/time
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 18:01	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 18:01	RGT	Mt. Juliet, TN
AW-19 L1650654-03 Non-Potable Water				Collected by	Collected date/time	Received date/time
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 18:01	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 18:01	RGT	Mt. Juliet, TN
AW-21 L1650654-05 Non-Potable Water				Collected by	Collected date/time	Received date/time
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/09/23 00:14	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/09/23 00:14	RGT	Mt. Juliet, TN
XPW02 L1650654-06 Non-Potable Water				Collected by	Collected date/time	Received date/time
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/09/23 00:14	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/09/23 00:14	RGT	Mt. Juliet, TN



APPENDIX A. **SAMPLE SUMMARY**
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND
 EDW-257-301

Data not pertinent to the compliance monitoring was removed.

FIELD BLANK L1650654-07 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 23:19	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 23:19	RGT	Mt. Juliet, TN

AW-01 DUP L1650654-08 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 23:19	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 23:19	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

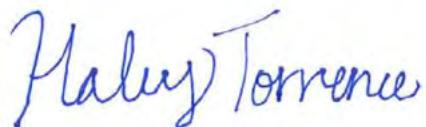
⁷ GI

⁸ Al

⁹ Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

AW-01

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
L1650654

Collected date/
EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.980		0.284	0.474	09/06/2023 20:57	WG2125239
(<i>T</i>) Barium	108			30.0-143	09/06/2023 20:57	WG2125239
(<i>T</i>) Yttrium	108			30.0-136	09/06/2023 20:57	WG2125239

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.13		0.341	0.545	09/08/2023 18:01	WG2123822

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.147	J	0.189	0.269	09/08/2023 18:01	WG2123822
(<i>T</i>) Barium-133	101			30.0-143	09/08/2023 18:01	WG2123822

AW-18

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
L1650654

Collected date/
09/06/2023

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	3.12		0.332	0.482	09/06/2023 20:57	<u>WG2125239</u>
(<i>T</i>) Barium	111			30.0-143	09/06/2023 20:57	<u>WG2125239</u>
(<i>T</i>) Yttrium	100			30.0-136	09/06/2023 20:57	<u>WG2125239</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc**Radiochemistry by Method Calculation**

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	6.06		0.747	0.545	09/08/2023 18:01	<u>WG2123822</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	2.94		0.669	0.255	09/08/2023 18:01	<u>WG2123822</u>
(<i>T</i>) Barium-133	115			30.0-143	09/08/2023 18:01	<u>WG2123822</u>

AW-19

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
L1650654

Collected date/
EDW-257-301**Radiochemistry by Method 904/9320**

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.801		0.247	0.412	09/06/2023 20:57	<u>WG2125239</u>
(<i>T</i>) Barium	103			30.0-143	09/06/2023 20:57	<u>WG2125239</u>
(<i>T</i>) Yttrium	102			30.0-136	09/06/2023 20:57	<u>WG2125239</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc**Radiochemistry by Method Calculation**

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.75		0.486	0.553	09/08/2023 18:01	<u>WG2123822</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.952		0.419	0.369	09/08/2023 18:01	<u>WG2123822</u>
(<i>T</i>) Barium-133	103			30.0-143	09/08/2023 18:01	<u>WG2123822</u>

APPENDIX A. **Data not pertinent to the compliance monitoring was removed.**
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE RESULTS - 04

L1650654

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u>	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	<u>Batch</u>

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u>	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	<u>Batch</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u>	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	<u>Batch</u>

AW-21

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

Collected date/time: 09/09/23 16:06

L1650654

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.796		0.234	0.388	09/06/2023 20:57	WG2125239
(<i>T</i>) Barium	92.3			30.0-143	09/06/2023 20:57	WG2125239
(<i>T</i>) Yttrium	105			30.0-136	09/06/2023 20:57	WG2125239

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.936		0.280	0.438	09/09/2023 00:14	WG2123822

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.140	J	0.154	0.203	09/09/2023 00:14	WG2123822
(<i>T</i>) Barium-133	98.5			30.0-143	09/09/2023 00:14	WG2123822

XPW02

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
L1650654

Collected date/
09/06/2023Project/
EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.12		0.207	0.326	09/06/2023 20:57	WG2125239
(<i>T</i>) Barium	110			30.0-143	09/06/2023 20:57	WG2125239
(<i>T</i>) Yttrium	107			30.0-136	09/06/2023 20:57	WG2125239

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.12		0.242	0.416	09/09/2023 00:14	WG2123822

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.000	<u>U</u>	0.125	0.259	09/09/2023 00:14	WG2123822
(<i>T</i>) Barium-133	103			30.0-143	09/09/2023 00:14	WG2123822

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.746		0.308	0.522	09/06/2023 20:57	WG2125239
(<i>T</i>) Barium	115			30.0-143	09/06/2023 20:57	WG2125239
(<i>T</i>) Yttrium	98.3			30.0-136	09/06/2023 20:57	WG2125239

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.48		0.509	0.642	09/08/2023 23:19	WG2123822

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.739		0.405	0.374	09/08/2023 23:19	WG2123822
(<i>T</i>) Barium-133	83.1			30.0-143	09/08/2023 23:19	WG2123822

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.221	J	0.251	0.439	09/06/2023 20:57	WG2125239
(<i>T</i>) Barium	102			30.0-143	09/06/2023 20:57	WG2125239
(<i>T</i>) Yttrium	94.0			30.0-136	09/06/2023 20:57	WG2125239

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.558		0.371	0.543	09/08/2023 23:19	WG2123822

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.338		0.273	0.320	09/08/2023 23:19	WG2123822
(<i>T</i>) Barium-133	99.4			30.0-143	09/08/2023 23:19	WG2123822

Method Blank (MB)

(MB) R3972128-1 09/06/23 20:57

Analyte	MB Result	<u>MB Qualifier</u>	MB Uncertainty	MB MDA
Radium-228	0.235	J	0.179	0.311
(I) Barium	116		116	
(I) Yttrium	103		103	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI

L1650713-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1650713-07 09/06/23 20:57 • (DUP) R3972128-5 09/06/23 20:57

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits	DUP RER Limit
Radium-228	0.103	0.419	0.735	1.28	0.335	0.735	1	170	2.19		20	3
(I) Barium	110			109	109							
(I) Yttrium	89.6			109	109							

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3972128-2 09/06/23 20:57

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Radium-228	5.00	4.94	98.8	80.0-120	
(I) Barium			121		
(I) Yttrium			102		

L1650654-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1650654-07 09/06/23 20:57 • (MS) R3972128-3 09/06/23 20:57 • (MSD) R3972128-4 09/06/23 20:57

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	MS RER	RPD Limits
Radium-228	16.7	0.746	17.3	16.1	99.4	91.7	1	70.0-130			7.66		20
(I) Barium		115			115	111							
(I) Yttrium		98.3			107	99.9							

WG2123822

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Radiochemistry Methods SM7500B M
EDWARDS POWER PLANT, ASH POND
EDW-257-301

~~Data not pertinent to the compliance monitoring was removed.~~
QUALITY CONTROL SUMMARY

[L1650654-01,02,03,04,05,06,07,08](#)

Method Blank (MB)

(MB) R3971134-4 09/09/23 00:14

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+/-	pCi/l
Radium-226	0.0117	U	0.0229	0.0411
(T) Barium-133	60.1		60.1	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI⁹Sc**L1650654-01 Original Sample (OS) • Duplicate (DUP)**

(OS) L1650654-01 09/08/23 18:01 • (DUP) R3971134-3 09/08/23 18:01

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+/-	pCi/l	pCi/l	+/-	pCi/l	%	%			%	
Radium-226	0.147	0.189	0.269	-0.0296	0.156	0.269	1	200	0.722	U	20	3
(T) Barium-133	101			77.2	77.2							

Laboratory Control Sample (LCS)

(LCS) R3971134-5 09/09/23 14:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.01	4.02	80.2	80.0-120	
(T) Barium-133			76.9		

L1650713-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1650713-05 09/08/23 23:19 • (MS) R3971134-1 09/08/23 18:01 • (MSD) R3971134-2 09/08/23 18:01

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%	%	%			%		%
Radium-226	20.0	0.280	18.0	19.4	88.8	95.7	1	75.0-125			7.42		20
(T) Barium-133		73.3			79.8	77.1							

GLOSSARY OF TERMS Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-05-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1c}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	990093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ^c	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA—Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ AI

⁹ SC

E121

Internal Transfer Chain of Custody

State of Origin: IL
 Cert. Needed: YES NO



Workorder: GH04572		Workorder Name: VISTRA EDWARDS		Owner Received Date: 8/23/2023		Results Req'd By: 9/7/2023			
Report To:		Subcontract To:		Requested Analysis					
DIANE BILLINGS Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651		Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122							
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers			
1	AW-01	GRAB	8/22/2023 14:28	GH04572-01	GW	Radium 226	LAB USE ONLY		
2	AW-18	GRAB	8/22/2023 11:11	GH04572-02	GW	X X	-01		
3	AW-19	GRAB	8/22/2023 12:57	GH04572-03	GW	X X	-02		
5	AW-21	GRAB	8/22/2023 16:04	GH04572-05	GW	X X	-03		
6	XPW02	GRAB	8/22/2023 15:57	GH04572-06	GW	X X	-04		
7	FIELD BLANK	GRAB	8/22/2023 11:11	GH04572-07	GW	X X	-05		
8	AP-01 DUP	GRAB	8/22/2023 14:28	GH04572-08	GW	X X	-06		
9									
10									
Transfers	Date/Time		Received By		Date/Time	Comments			
1	8/26/23 1145		Hawki MINECHING		08-24-23 0700	Needs reported as 226, 228 and also combined 226/228, include QC 10 day TAT			
2									
3									

Cooler Temperature on Receipt	*C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	----	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

Sample Receipt Checklist
 COC Seal Present/Intact: Y N If Applicable
 COC Signed/Accurate: Y N VOA Zero Headspace: Y N
 Bottles arrive intact: Y N Pres. Correct/Check: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 RA Screen <0.5 mR/hr: Y N

FMT-ALL-C-002rev.00 24March2009

Page 1 of 2

PH-10BDH4321 TRC-2144141
 CR6-20221V
 PH-10BDH4321 TRC-2144141

4319 6005 3775



August 31, 2023

Gail Shindler
Pace Peoria
2231 W Altorfer Dr
Peoria, IL 61615

RE: Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Dear Gail Shindler:

Enclosed are the analytical results for sample(s) received by the laboratory on August 29, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Patterson
heather.patterson@pacelabs.com
(317)228-3146
Project Manager

Enclosures

cc: Diane Billings, Pace IL/MO
Janet Clutters, Pace Analytical Peoria
Taylor Cordle, Pace Analytical Peoria
Jon Robert Handshy, Pace Hazelwood
Amy Holmes, Pace Hazelwood
Chenise Lambert-Sykes, Pace Analytical Peoria
Erin Lane, Pace Peoria
Jennifer Solomon, Pace Analytical Peoria



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



SAMPLE SUMMARY

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50352715001	AP05S	Water	08/23/23 13:04	08/29/23 09:30
50352715003	AW-14	Water	08/23/23 15:53	08/29/23 09:30
50352715004	AW-15	Water	08/23/23 12:55	08/29/23 09:30
50352715005	AW-15S	Water	08/23/23 14:25	08/29/23 09:30
50352715007	EB 01	Water	08/23/23 16:00	08/29/23 09:30

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



SAMPLE ANALYTE COUNT

Project: GH04878/VISTRA EDWARDS
 Pace Project No.: 50352715

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50352715001	AP05S	RSK 175 Modified	JRW	3	PASI-I
50352715003	AW-14	RSK 175 Modified	JRW	3	PASI-I
50352715004	AW-15	RSK 175 Modified	JRW	3	PASI-I
50352715005	AW-15S	RSK 175 Modified	JRW	3	PASI-I
50352715007	EB 01	RSK 175 Modified	JRW	3	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.



SUMMARY OF DETECTION

Project: GH04878/VISTRA EDWARDS
 Pace Project No.: 50352715

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
50352715001	AP05S					
50352715003	AW-14					
50352715004	AW-15					
50352715005	AW-15S					
50352715007	EB 01					

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Sample: AP05S	Lab ID: 50352715001	Collected: 08/23/23 13:04	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Sample: AW-14	Lab ID: 50352715003	Collected: 08/23/23 15:53	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Sample: AW-15	Lab ID: 50352715004	Collected: 08/23/23 12:55	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Sample: AW-15S	Lab ID: 50352715005	Collected: 08/23/23 14:25	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

Sample: EB 01	Lab ID: 50352715007	Collected: 08/23/23 16:00	Received: 08/29/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

**QUALITY CONTROL DATA**

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

QC Batch:	750650	Analysis Method:	RSK 175 Modified
QC Batch Method:	RSK 175 Modified	Analysis Description:	RSK 175 HEADSPACE
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50352715001, 50352715002, 50352715003, 50352715004, 50352715005, 50352715006, 50352715007		

METHOD BLANK: 3440264 Matrix: Water

Associated Lab Samples: 50352715001, 50352715002, 50352715003, 50352715004, 50352715005, 50352715006, 50352715007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
-----------	-------	--------------	-----------------	----------	------------

LABORATORY CONTROL SAMPLE: 3440265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
-----------	-------	-------------	------------	-----------	--------------	------------

SAMPLE DUPLICATE: 3440448

Parameter	Units	50352721003 Result	Dup Result	RPD	Max RPD	Qualifiers
-----------	-------	--------------------	------------	-----	---------	------------

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALIFIERS

Project: GH04878/VISTRA EDWARDS
Pace Project No.: 50352715

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GH04878/VISTRA EDWARDS
 Pace Project No.: 50352715

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50352715001	AP05S	RSK 175 Modified	750650		
50352715003	AW-14	RSK 175 Modified	750650		
50352715004	AW-15	RSK 175 Modified	750650		
50352715005	AW-15S	RSK 175 Modified	750650		
50352715007	EB 01	RSK 175 Modified	750650		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.

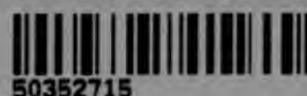
APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

Inter

WO# : 50352715

State of Origin: IL
Cert. Needed: YES NO

Owner Received

Date: 8/24/2023

Results Requ

By: 9/8/2023

Workorder: GH04878

Workorder Name: VISTRA EDWARDS

Report To:

DIANE BILLINGS

Pace Analytical - IL/MO
2231 W. Altorfer Drive
Peoria, IL 61615
800-752-6651Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3105

Subcontract To:

Requested Analysis

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 08-29-2023 1124

1. Courier: FED EX UPS CLIENT PACE NOW/JETT OTHER _____2. Custody Seal on Cooler/Box Present: Yes No(If yes)Seals Intact: Yes No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 1.8 / 1.8

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: Bubble Wrap Bubble Bags None Other *Styrofoam*6. Ice Type: Wet Blue None7. If temp. is over 6°C or under 0°C, was the PM notified?: Yes No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle: HNO3 (<2) H ₂ SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			X
Short Hold Time Analysis (48 hours or less)? Analysis:		X				X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Custody Signatures Present?	X		Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Containers Intact?:	X		Headspace Wisconsin Sulfide?			X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Present?		X	
Comments:			Trip Blank Custody Seals?:			X

Data not pertinent to the compliance monitoring was removed.

Sample Container Count

** Place a RED dot on containers

that are out of conformance **

	MeOH (only)	SBS	DI	WG FU	WG KU	BG 1U	DG 9H	VG 9H	VOA VIAL HS >6mm	VG 9U DG 9U	VG 9T	AMBER GLASS	PLASTIC	OTHER	Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc		
COC Line Item	R															Red	Yellow	Green	Black		
1							3/3	3				AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U		
2																BP1N					
3																BP2U					
4							2/3									BP3U					
5								1/3								BP3N					
6								2/3								BP3F					
7								2/3								BP3S					
8																BP3B					
9																BP3Z					
10																CG3H					
11																CG3F					
12																Syringe Kit					

Container Codes

Glass			
DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio, clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WG FU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic			
BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
BP2S	500mL H2SO4 plastic	R	Terracore Kit
BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
BP2Z	500mL NaOH, Zn Ac	GN	General Container
BP3B	250mL NaOH plastic	U	Summa Can (air sample)
BP3N	250mL HNO3 plastic	WT	Water
BP3F	250mL HNO3 plastic-field filtered	SL	Solid
BP3U	250mL unpreserved plastic	OL	Oil
BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

 ANALYTICAL REPORT

September 13, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

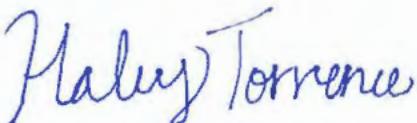
⁸ Al

⁹ Sc

Pace IR - Peoria, IL

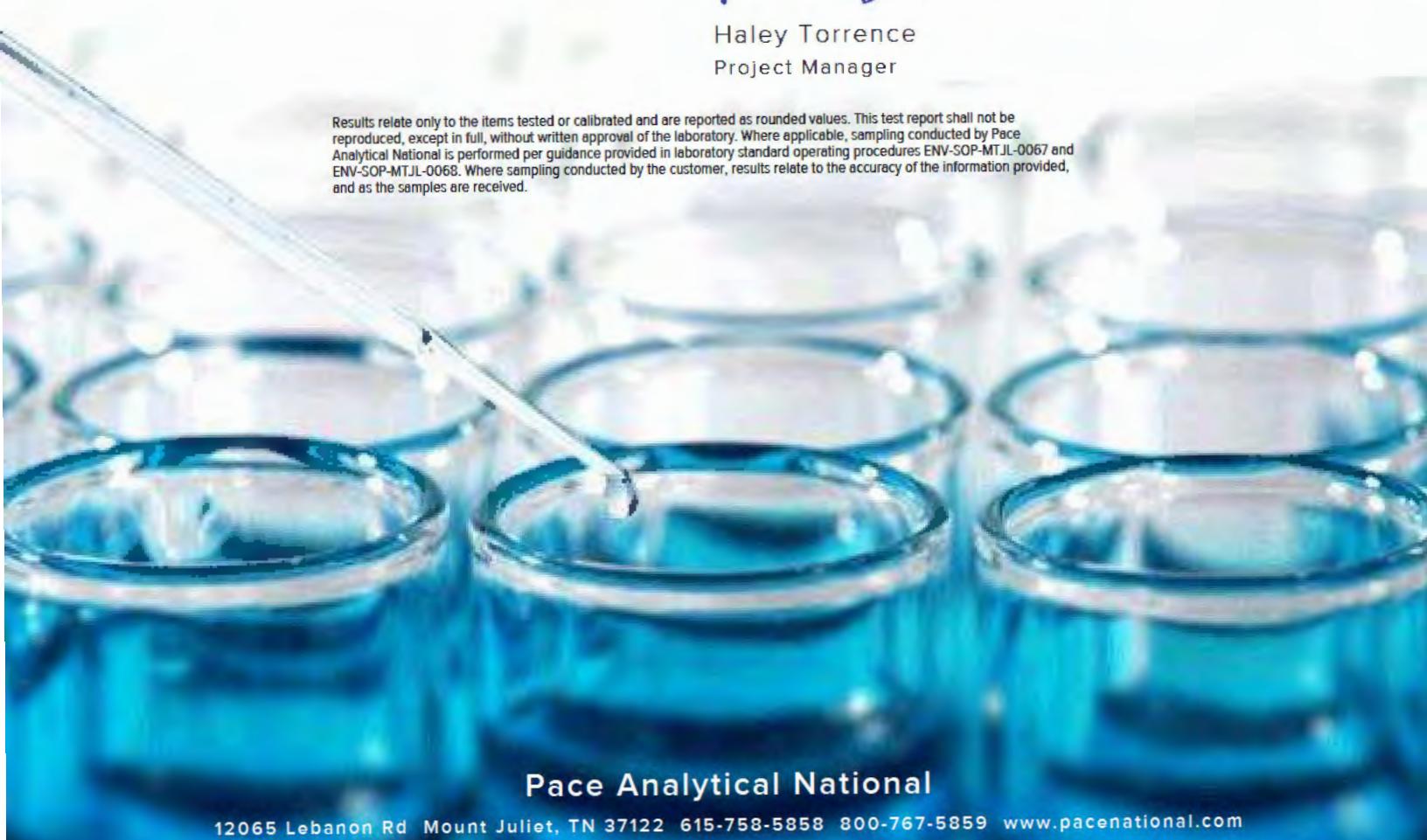
Sample Delivery Group: L1650713
Samples Received: 08/29/2023
Project Number: GH04878
Description: Vistra Edwards
Site: 01
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:



Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

A close-up photograph of several laboratory glass vials or test tubes filled with a bright blue liquid. A pipette is shown in the foreground, positioned over one of the vials, suggesting a sampling or testing process.

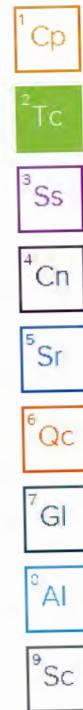
Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

112

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
AP05S L1650713-01	6
AW-14 L1650713-03	8
AW-15 L1650713-04	9
AW-15S L1650713-05	10
EB01 L1650713-07	11
Qc: Quality Control Summary	12
Radiochemistry by Method 904/9320	13
Radiochemistry by Method SM7500Ra B M	13
Gl: Glossary of Terms	14
Al: Accreditations & Locations	15
Sc: Sample Chain of Custody	16
	17



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

SAMPLE SUMMARY

AP05S L1650713-01 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 23:19	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 23:19	RGT	Mt. Juliet, TN

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷GI
⁸AI
⁹SC

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
AW-14 L1650713-03 Non-Potable Water				Collected by 08/23/23 15:53	Collected date/time 08/23/23 15:53	Received date/time 08/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 23:19	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 23:19	RGT	Mt. Juliet, TN

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
AW-15 L1650713-04 Non-Potable Water				Collected by 08/23/23 12:55	Collected date/time 08/23/23 12:55	Received date/time 08/29/23 09:00
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 23:19	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 23:19	RGT	Mt. Juliet, TN

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
AW-15S L1650713-05 Non-Potable Water				Collected by 08/23/23 14:25	Collected date/time 08/23/23 14:25	Received date/time 08/29/23 09:00
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 23:19	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 23:19	RGT	Mt. Juliet, TN

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

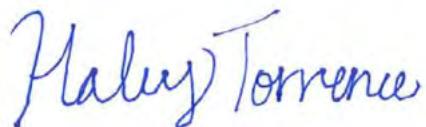
EB01 L1650713-07 Non-Potable Water

Method	Batch	Dilution	Collected by	Collected date/time	Received date/time	Location
			Preparation date/time	Analysis date/time	Analyst	
Radiochemistry by Method 904/9320	WG2125239	1	09/01/23 13:21	09/06/23 20:57	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2123822	1	09/01/23 16:58	09/08/23 23:19	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2123822	1	09/01/23 16:58	09/08/23 23:19	RGT	Mt. Juliet, TN

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Ch
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ Al
- ⁹ Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

AP05S

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Collected date/time: 09/13/23/2024
EDWARDS POWER PLANT, ASH POND

Data not pertinent to the compliance monitoring was removed.

SAMPLE RESULTS 01

L1650713

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.519	J	0.320	0.552	09/06/2023 20:57	WG2125239
(<i>T</i>) Barium	108			30.0-143	09/06/2023 20:57	WG2125239
(<i>T</i>) Yttrium	96.5			30.0-136	09/06/2023 20:57	WG2125239

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.40		0.519	0.661	09/08/2023 23:19	WG2123822

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.879		0.408	0.364	09/08/2023 23:19	WG2123822
(<i>T</i>) Barium-133	98.4			30.0-143	09/08/2023 23:19	WG2123822

APPENDIX A. **ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

SAMPLE RESULTS - 02

L1650713

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch

AW-14

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Collected date/time: 09/13/23 15:53
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

SAMPLE RESULTS - 03

L1650713

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.99		0.446	0.704	09/06/2023 20:57	WG2125239
(<i>T</i>) Barium	103			30.0-143	09/06/2023 20:57	WG2125239
(<i>T</i>) Yttrium	91.6			30.0-136	09/06/2023 20:57	WG2125239

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	3.53		0.563	0.791	09/08/2023 23:19	WG2123822

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.547		0.343	0.361	09/08/2023 23:19	WG2123822
(<i>T</i>) Barium-133	109			30.0-143	09/08/2023 23:19	WG2123822

AW-15

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
SAMPLE RESULTS - 04
L1650713

Collected date/
EDW-257-301

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	3.91		0.380	0.554	09/06/2023 20:57	WG2125239
(<i>T</i>) Barium	114			30.0-143	09/06/2023 20:57	WG2125239
(<i>T</i>) Yttrium	109			30.0-136	09/06/2023 20:57	WG2125239

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	6.12		0.697	0.620	09/08/2023 23:19	WG2123822

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	2.21		0.584	0.279	09/08/2023 23:19	WG2123822
(<i>T</i>) Barium-133	103			30.0-143	09/08/2023 23:19	WG2123822

AW-15S

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

SAMPLE RESULTS - 05

L1650713

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.737		0.261	0.439	09/06/2023 20:57	<u>WG2125239</u>
(<i>T</i>) Barium	101			30.0-143	09/06/2023 20:57	<u>WG2125239</u>
(<i>T</i>) Yttrium	104			30.0-136	09/06/2023 20:57	<u>WG2125239</u>

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.02		0.396	0.589	09/08/2023 23:19	<u>WG2123822</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.280	J	0.298	0.392	09/08/2023 23:19	<u>WG2123822</u>
(<i>T</i>) Barium-133	73.3			30.0-143	09/08/2023 23:19	<u>WG2123822</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

APPENDIX A. **Data not pertinent to the compliance monitoring was removed.**
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE RESULTS - 06
L1650713

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch

EB01

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Collected date/time: 09/13/23 16:06

L1650713

SAMPLE RESULTS - 07

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.103	U	0.419	0.735	09/06/2023 20:57	<u>WG2125239</u>
(<i>T</i>) Barium	110			30.0-143	09/06/2023 20:57	<u>WG2125239</u>
(<i>T</i>) Yttrium	89.6			30.0-136	09/06/2023 20:57	<u>WG2125239</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.103	U	0.433	0.781	09/08/2023 23:19	<u>WG2123822</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.000	U	0.111	0.265	09/08/2023 23:19	<u>WG2123822</u>
(<i>T</i>) Barium-133	96.3			30.0-143	09/08/2023 23:19	<u>WG2123822</u>

Method Blank (MB)

Data not pertinent to the compliance monitoring was removed.
QUALITY CONTROL SUMMARY

L1650713-01,02,03,04,05,06,07

(MB) R3972128-1 09/06/23 20:57

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.235	J	0.179	0.311
(T) Barium	116		116	
(T) Yttrium	103		103	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI

L1650713-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1650713-07 09/06/23 20:57 • (DUP) R3972128-5 09/06/23 20:57

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-228	0.103	0.419	0.735	1.28	0.335	0.735	1	170	2.19		20	3
(T) Barium	110			109	109							
(T) Yttrium	89.6			109	109							

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3972128-2 09/06/23 20:57

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	4.94	98.8	80.0-120	
(T) Barium			121		
(T) Yttrium			102		

¹⁰Al

L1650654-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1650654-07 09/06/23 20:57 • (MS) R3972128-3 09/06/23 20:57 • (MSD) R3972128-4 09/06/23 20:57

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.746	17.3	16.1	99.4	91.7	1	70.0-130			7.66		20
(T) Barium		115			115	111							
(T) Yttrium		98.3			107	99.9							

WG2123822

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Radiochemistry Methods SM7500B M
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.
QUALITY CONTROL SUMMARY

L1650713-01,02,03,04,05,06,07**Method Blank (MB)**

(MB) R3971134-4 09/09/23 00:14

Analyte	MB Result	<u>MB Qualifier</u>	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	0.0117	U	0.0229	0.0411
(T) Barium-133	60.1		60.1	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI⁹Sc**L1650654-01 Original Sample (OS) • Duplicate (DUP)**

(OS) L1650654-01 09/08/23 18:01 • (DUP) R3971134-3 09/08/23 18:01

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l	%	%			%	
Radium-226	0.147	0.189	0.269	-0.0296	0.156	0.269	1	200	0.722	U	20	3
(T) Barium-133	101			77.2	77.2							

Laboratory Control Sample (LCS)

(LCS) R3971134-5 09/09/23 14:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	pCi/l	pCi/l	%	%	
Radium-226	5.01	4.02	80.2	80.0-120	
(T) Barium-133			76.9		

L1650713-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1650713-05 09/08/23 23:19 • (MS) R3971134-1 09/08/23 18:01 • (MSD) R3971134-2 09/08/23 18:01

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%	%	%			%		%
Radium-226	20.0	0.280	18.0	19.4	88.8	95.7	1	75.0-125			7.42		20
(T) Barium-133		73.3			79.8	77.1							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier **Description**

J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-05-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1c}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	990093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ^c	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA—Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ AI

⁹ SC

1124

Internal Transfer Chain of Custody

State of Origin: IL
 Cert. Needed: YES NO



Workorder: GH04878		Workorder Name: VISTRA EDWARDS		Owner Received Date: 8/23/2023		Results Required By: 9/8/2023		
Report To:		Subcontract To:		Requested Analysis				
DIANE BILLINGS Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651		Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122						
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers		LAB USE ONLY
						Radium 226	Radium 228	
1	AP05S	GRAB	8/23/2023 13:04	GH04878-01	GW	X	X	61
3	AW-14	GRAB	8/23/2023 15:53	GH04878-03	GW	X	X	07
4	AW-15	GRAB	8/23/2023 12:55	GH04878-04	GW	X	X	04
5	AW-15S	GRAB	8/23/2023 14:25	GH04878-05	GW	X	X	05
7	EB 01	GRAB	8/23/2023 16:00	GH04878-07	GW	X	X	07
8								
9								
10								
Transfers	13/14/2023 14:31	Date/Time	Received By	Date/Time	Comments			
1	<i>[Signature]</i>	8/26/23 11:40	<i>Calvin Trep</i>	8/29/23 09:00	Needs reported as 226, 228 and also combined 226/228, include QC			
2								
3					10 day TAT			

Cooler Temperature on Receipt	°C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	----	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 2

6319 6005 3764
Sample Receipt Checklist

COC Seal Present/Intact: <input checked="" type="checkbox"/>	If Applicable
COC Signed/Accurate: <input checked="" type="checkbox"/>	VCA Zero Headspace: <input type="checkbox"/>
Bottles arrive intact: <input checked="" type="checkbox"/>	Pres. Correct/Check: <input checked="" type="checkbox"/>
Correct bottles used: <input checked="" type="checkbox"/>	<i>GPA</i>
Sufficient volume sent: <input checked="" type="checkbox"/>	<i>13.5+0=13.5</i>
RA Screen <0.5 mR/hr: <input checked="" type="checkbox"/>	



September 11, 2023

Gail Shindler
Pace Peoria
2231 W Altorfer Dr
Peoria, IL 61615

RE: Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Dear Gail Shindler:

Enclosed are the analytical results for sample(s) received by the laboratory on September 01, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Patterson
heather.patterson@pacelabs.com
(317)228-3146
Project Manager

Enclosures

cc: Diane Billings, Pace IL/MO
Janet Clutters, Pace Analytical Peoria
Taylor Cordle, Pace Analytical Peoria
Jon Robert Handshy, Pace Hazelwood
Amy Holmes, Pace Hazelwood
Chenise Lambert-Sykes, Pace Analytical Peoria
Erin Lane, Pace Peoria
Jennifer Solomon, Pace Analytical Peoria



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



SAMPLE SUMMARY

Project: GH05497/Vistra - Edwards
 Pace Project No.: 50353062

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50353062001	AP07S	Water	08/28/23 10:47	09/01/23 09:30
50353062002	AW-05	Water	08/28/23 14:49	09/01/23 09:30
50353062003	AW-06	Water	08/28/23 16:10	09/01/23 09:30
50353062004	AW-08	Water	08/28/23 14:40	09/01/23 09:30
50353062005	AW-10	Water	08/28/23 13:04	09/01/23 09:30
50353062006	AW-11	Water	08/28/23 11:10	09/01/23 09:30
50353062008	XPW03	Water	08/28/23 16:16	09/01/23 09:30
50353062009	EB 02	Water	08/28/23 16:25	09/01/23 09:30

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.



SAMPLE ANALYTE COUNT

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50353062001	AP07S	RSK 175 Modified	TAY	3	PASI-I
50353062002	AW-05	RSK 175 Modified	TAY	3	PASI-I
50353062003	AW-06	RSK 175 Modified	TAY	3	PASI-I
50353062004	AW-08	RSK 175 Modified	TAY	3	PASI-I
50353062005	AW-10	RSK 175 Modified	TAY	3	PASI-I
50353062006	AW-11	RSK 175 Modified	TAY	3	PASI-I
50353062008	XPW03	RSK 175 Modified	TAY	3	PASI-I
50353062009	EB 02	RSK 175 Modified	TAY	3	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



SUMMARY OF DETECTION

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
50353062004	AW-08					
50353062005	AW-10					
50353062006	AW-11					
50353062008	XPW03					

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Sample: AP07S	Lab ID: 50353062001	Collected: 08/28/23 10:47	Received: 09/01/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Sample: AW-05	Lab ID: 50353062002	Collected: 08/28/23 14:49	Received: 09/01/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Sample: AW-06	Lab ID: 50353062003	Collected: 08/28/23 16:10	Received: 09/01/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Sample: AW-08	Lab ID: 50353062004	Collected: 08/28/23 14:40	Received: 09/01/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Sample: AW-10	Lab ID: 50353062005	Collected: 08/28/23 13:04	Received: 09/01/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Sample: AW-11	Lab ID: 50353062006	Collected: 08/28/23 11:10	Received: 09/01/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Sample: XPW03	Lab ID: 50353062008	Collected: 08/28/23 16:16	Received: 09/01/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Sample: EB 02	Lab ID: 50353062009	Collected: 08/28/23 16:25	Received: 09/01/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

QC Batch: 751446 Analysis Method: RSK 175 Modified
QC Batch Method: RSK 175 Modified Analysis Description: RSK 175 HEADSPACE
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353062001, 50353062002, 50353062003, 50353062007, 50353062009

METHOD BLANK: 3443675 Matrix: Water
Associated Lab Samples: 50353062001 50353062002 50353062003 50353062007 50353062009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
-----------	-------	--------------	-----------------	----------	------------

LABORATORY CONTROL SAMPLE: 3443676

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
-----------	-------	-------------	------------	-----------	--------------	------------

SAMPLE DUPLICATE: 3443677

Parameter	Units	50353062001 Result	Dup Result	RPD	Max RPD	Qualifiers
-----------	-------	-----------------------	---------------	-----	------------	------------

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

QC Batch: 751593 Analysis Method: RSK 175 Modified
QC Batch Method: RSK 175 Modified Analysis Description: RSK 175 HEADSPACE
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353062004, 50353062005, 50353062006, 50353062008

METHOD BLANK: 3444332 Matrix: Water
Associated Lab Samples: 50353062004 50353062005 50353062006 50353062008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
-----------	-------	--------------	-----------------	----------	------------

LABORATORY CONTROL SAMPLE: 3444333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
-----------	-------	-------------	------------	-----------	--------------	------------

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALIFIERS

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 751593
[BM] Matrix precision data could not be provided for this analytical batch due to insufficient sample volume.

ANALYTE QUALIFIERS

BM Matrix precision data could not be provided for this analytical batch due to insufficient sample volume.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GH05497/Vistra - Edwards
Pace Project No.: 50353062

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50353062001	AP07S	RSK 175 Modified	751446		
50353062002	AW-05	RSK 175 Modified	751446		
50353062003	AW-06	RSK 175 Modified	751446		
50353062004	AW-08	RSK 175 Modified	751593		
50353062005	AW-10	RSK 175 Modified	751593		
50353062006	AW-11	RSK 175 Modified	751593		
50353062008	XPW03	RSK 175 Modified	751593		
50353062009	EB 02	RSK 175 Modified	751446		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

Internal Transfer Chain

WO# : 50353062

State of Origin: IL
Cert. Needed: YES NO

Workorder: GH05497

Workorder Name: Vistra - Edwards

Owner Received

Date: 8/29/2023

Results Requ

By: 9/11/2023

Report To:	Subcontract To:	Requested Analysis
------------	-----------------	--------------------

Diane Billings

Pace Analytical - IL/MO
2231 W. Altorfer Drive
Peoria, IL 61615
800-752-6651Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3105

Preserved Containers

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	RSK 175	LAB USE ONLY
1	AP07S	GRAB	8/28/2023 10:47	GH05497-01	GW	X	
2	AW-05	GRAB	8/28/2023 14:49	GH05497-02	GW	X	
3	AW-06	GRAB	8/28/2023 16:10	GH05497-03	GW	X	
4	AW-08	GRAB	8/28/2023 14:40	GH05497-04	GW	X	
5	AW-10	GRAB	8/28/2023 13:04	GH05497-05	GW	X	
6	AW-11	GRAB	8/28/2023 11:10	GH05497-06	GW	X	
8	XPW03	GRAB	8/28/2023 16:16	GH05497-08	GW	X	
9	EB 02	GRAB	8/28/2023 16:25	GH05497-09	GW	X	
10							
11							
12							
Transfer	Released By	Date/Time	Received By	Date/Time	Comments		
1	<i>[Signature]</i>	8/31/23 1700	Felix			Include QC summary and edd	
2	<i>[Signature]</i>	9/1/23 9:30	T. Hause	9/1/23 9:30			
3							

Cooler Temperature on Receipt	°C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	----	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents:

9/1/23 19:43 TH

1. Courier: <input checked="" type="checkbox"/> FED EX <input type="checkbox"/> UPS <input type="checkbox"/> CLIENT <input type="checkbox"/> PACE <input type="checkbox"/> NOW/JETT <input type="checkbox"/> OTHER _____	5. Packing Material: <input type="checkbox"/> Bubble Wrap <input checked="" type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input type="checkbox"/> Other _____
2. Custody Seal on Cooler/Box Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Ice Type: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None
(If yes) Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (leave blank if no seals were present)	7. If temp. is over 6°C or under 0°C, was the PM notified?: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler temp should be above freezing to 6°C
3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H	
4. Cooler Temperature(s): 1.8/2.1 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)	

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis:		<input checked="" type="checkbox"/>	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			<input checked="" type="checkbox"/>
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

Data not pertinent to the compliance monitoring was removed.

COC PAGE 1 OF 1

Sample Container Count

** Place a RED dot on containers
that are out of conformance **

COC Line Item	WG FU	WG KU	BG 1U	DG 9H	VG 9H	VOA VIAL HS >6mm	VG 9U (3) VG 9D	VG 9T	AMBER GLASS	PLASTIC	OTHER	Matrix																		
	SBS	DI	R	DG 9H	VG 9H	VOA VIAL HS >6mm	VG 9U (3) VG 9D	VG 9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3Z	CG3H	CG3F	Syringe Kit	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	ZnAc Black
	1																													
	2																													
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

Container Codes

Glass			
DG9H	40mL HCl amber vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WG FU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic			
BP18	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
BP2S	500mL H2SO4 plastic	R	Terracore Kit
BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
BP2Z	500mL NaOH, Zn Ac	GN	General Container
BP3B	250mL NaOH plastic	U	Summa Can (air sample)
BP3N	250mL HNO3 plastic	WT	Water
BP3F	250mL HNO3 plastic-field filtered	SL	Solid
BP3U	250mL unpreserved plastic	OL	Oil
BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

 ANALYTICAL REPORT

October 03, 2023

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

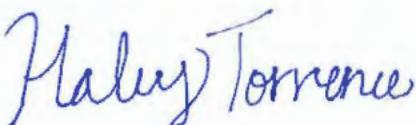
8 Al

9 Sc

Pace IR - Peoria, IL

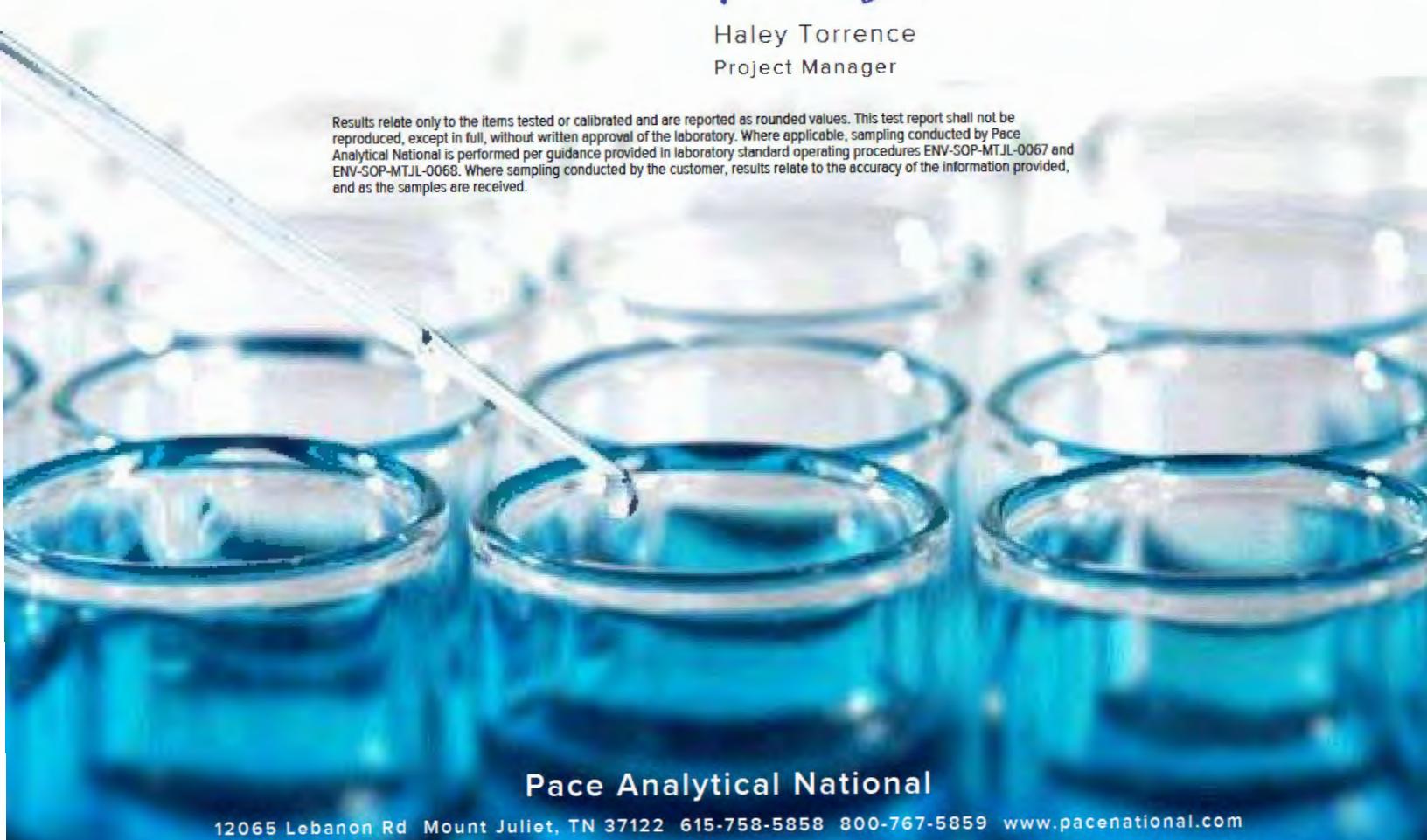
Sample Delivery Group: L1652263
Samples Received: 09/01/2023
Project Number: GH05497
Description: Vistra-Edwards
Site: 001
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:



Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

A close-up photograph of several laboratory glass vials or test tubes filled with a bright blue liquid. A pipette is shown in the foreground, positioned over one of the vials, suggesting a sampling or testing process.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

150

TABLE OF CONTENTS

Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	² Tc
Ss: Sample Summary	3	³ Ss
Cn: Case Narrative	5	⁴ Cn
Sr: Sample Results	6	⁵ Sr
AP07S L1652263-01	6	⁶ Qc
AW-05 L1652263-02	7	⁷ Gl
AW-06 L1652263-03	8	⁸ Al
AW-08 L1652263-04	9	⁹ Sc
AW-10 L1652263-05	10	
AW-11 L1652263-06	11	
	12	
XPW03 L1652263-08	13	
EB 02 L1652263-09	14	
Qc: Quality Control Summary	15	
Radiochemistry by Method 904/9320	15	
Radiochemistry by Method SM7500Ra B M	16	
Gl: Glossary of Terms	17	
Al: Accreditations & Locations	18	
Sc: Sample Chain of Custody	19	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY
AP07S L1652263-01 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2129013	1	09/08/23 19:25	09/22/23 14:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/22/23 14:40	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN
AW-05 L1652263-02 Non-Potable Water			Collected by	Collected date/time	Received date/time	
				08/28/23 14:49	09/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2129013	1	09/08/23 19:25	09/22/23 14:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/22/23 14:40	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN
AW-06 L1652263-03 Non-Potable Water			Collected by	Collected date/time	Received date/time	
				08/28/23 16:10	09/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2129013	1	09/08/23 19:25	09/22/23 14:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/22/23 14:40	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN
AW-08 L1652263-04 Non-Potable Water			Collected by	Collected date/time	Received date/time	
				08/28/23 14:40	09/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2129013	1	09/08/23 19:25	09/22/23 14:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/22/23 14:40	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN
AW-10 L1652263-05 Non-Potable Water			Collected by	Collected date/time	Received date/time	
				08/28/23 13:04	09/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2129013	1	09/08/23 19:25	09/22/23 14:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/22/23 14:40	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN
AW-11 L1652263-06 Non-Potable Water			Collected by	Collected date/time	Received date/time	
				08/28/23 11:10	09/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2129013	1	09/08/23 19:25	09/22/23 14:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/22/23 14:40	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gi
8 Al
9 Sc

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

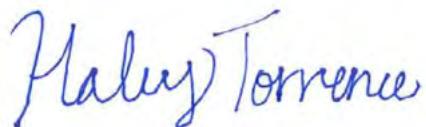
SAMPLE SUMMARY

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
XPW03 L1652263-08 Non-Potable Water			Collected by	Collected date/time	Received date/time	
				08/28/23 16:16	09/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2129013	1	09/08/23 19:25	09/22/23 14:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/22/23 14:40	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN
EB 02 L1652263-09 Non-Potable Water			Collected by	Collected date/time	Received date/time	
				08/28/23 16:25	09/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2129013	1	09/08/23 19:25	09/22/23 14:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/22/23 14:40	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

AP07S

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Collected date/
09/28/2023

SAMPLE RESULTS - 01

L1652263

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.134	U	0.217	0.405	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Barium	119			30.0-143	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Yttrium	94.0			30.0-136	09/22/2023 14:40	<u>WG2129013</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.26		0.474	0.483	09/22/2023 14:40	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.13		0.421	0.263	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	93.3			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

AW-05

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
L1652263

Collected date/09/28/23

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0372	<u>U</u>	0.474	0.887	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Barium	107			30.0-143	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Yttrium	78.9			30.0-136	09/22/2023 14:40	<u>WG2129013</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ SC

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0965	<u>U</u>	0.498	0.919	09/22/2023 14:40	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0965	<u>J</u>	0.154	0.240	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	93.6			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

AW-06

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
L1652263

Collected date/
EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.253	<u>U</u>	0.228	0.437	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Barium	116			30.0-143	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Yttrium	109			30.0-136	09/22/2023 14:40	<u>WG2129013</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.107	<u>U</u>	0.270	0.484	09/22/2023 14:40	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.107	<u>J</u>	0.144	0.208	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	109			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

AW-08

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/Time: 09/28/23 14:40

L1652263

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.876	<u>U</u>	0.264	0.517	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Barium	139			30.0-143	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Yttrium	98.1			30.0-136	09/22/2023 14:40	<u>WG2129013</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ SC

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.434	<u>J</u>	0.388	0.591	09/22/2023 14:40	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.434		0.285	0.287	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	99.3			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

AW-10

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Collected date/time: 09/18/2023 12:01

L1652263

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.26		0.387	0.658	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Barium	132			30.0-143	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Yttrium	94.5			30.0-136	09/22/2023 14:40	<u>WG2129013</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	4.03		0.678	0.736	09/22/2023 14:40	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.77		0.557	0.329	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	89.5			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

AW-11

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
L1652263

Collected date/
EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.953		0.266	0.471	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Barium	113			30.0-143	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Yttrium	94.9			30.0-136	09/22/2023 14:40	<u>WG2129013</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.45		0.559	0.534	09/22/2023 14:40	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.50		0.492	0.251	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	93.7			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

APPENDIX A. **ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

SAMPLE RESULTS - 07

L1652263

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch

XPW03

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

Collected date/Hour: 09/18/23 16:46

L1652263

SAMPLE RESULTS - 08

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.340	U	0.295	0.559	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Barium	113			30.0-143	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Yttrium	105			30.0-136	09/22/2023 14:40	<u>WG2129013</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.261	J	0.368	0.607	09/22/2023 14:40	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.261		0.220	0.236	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	92.2			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

EB 02

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
SAMPLE RESULTS - 09
L1652263

Collected date/
EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0351	U	0.301	0.562	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Barium	120			30.0-143	09/22/2023 14:40	<u>WG2129013</u>
(<i>T</i>) Yttrium	90.0			30.0-136	09/22/2023 14:40	<u>WG2129013</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.263	J	0.368	0.621	09/22/2023 14:40	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.228	J	0.212	0.264	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	107			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

Method Blank (MB)

(MB) R3978600-1 09/22/23 14:40

Analyte	MB Result	<u>MB Qualifier</u>	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-228	-0.0308	U	0.174	0.328
(<i>T</i>) Barium	116		116	
(<i>T</i>) Yttrium	117		117	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI

L1652263-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1652263-01 09/22/23 14:40 • (DUP) R3978600-5 09/22/23 14:40

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l	%	%		%	%	
Radium-228	0.134	0.217	0.405	0.537	0.326	0.597	1	120	1.03	J	20	3
(<i>T</i>) Barium	119			116	116							
(<i>T</i>) Yttrium	94.0			95.8	95.8							

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3978600-2 09/22/23 14:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	pCi/l	pCi/l	%	%	
Radium-228	5.00	4.57	91.3	80.0-120	
(<i>T</i>) Barium			90.3		
(<i>T</i>) Yttrium			98.1		

L1650760-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1650760-02 09/22/23 14:40 • (MS) R3978600-3 09/22/23 14:40 • (MSD) R3978600-4 09/22/23 14:40

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%	%	%			%		%
Radium-228	10.0	0.352	14.3	11.8	140	114	1	70.0-130	J5		19.4		20
(<i>T</i>) Barium		104		122	95.0								
(<i>T</i>) Yttrium		89.0		78.5	83.7								

WG2130038

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Radiochemistry Methods SM7500B M
EDWARDS POWER PLANT, ASH POND
EDW-257-301

QUALITY CONTROL SUMMARY

[L1652263-01,02,03,04,05,06,07,08,09](#)

Method Blank (MB)

(MB) R3981103-1 09/15/23 15:33

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	0.00320	U	0.0756	0.145
(T) Barium-133	52.0		52.0	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI⁹Sc

L1652263-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1652263-09 09/15/23 19:27 • (DUP) R3981103-5 09/15/23 15:33

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l	%	%			%	
Radium-226	0.228	0.212	0.264	-0.0166	0.126	0.300	1	200	0.993	U	20	3
(T) Barium-133	107			86.4	86.4							

Laboratory Control Sample (LCS)

(LCS) R3981103-2 09/15/23 15:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.01	5.62	112	80.0-120	
(T) Barium-133			64.5		

L1651386-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1651386-07 09/15/23 19:27 • (MS) R3981103-3 09/15/23 15:33 • (MSD) R3981103-4 09/15/23 15:33

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%	%	%			%	%	%
Radium-226	20.0	0.799	21.5	17.9	104	85.4	1	75.0-125			18.4		20
(T) Barium-133		92.7			82.5	84.5							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	¹ Cp
Rec.	Recovery.	² Tc
RER	Replicate Error Ratio.	³ Ss
RPD	Relative Percent Difference.	⁴ Cn
SDG	Sample Delivery Group.	⁵ Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	⁶ Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁷ GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	⁸ AI
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	⁹ SC
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier **Description**

C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-05-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1c}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	990093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ^c	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA—Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

Internal Transfer Chain of Custody

State of Origin: IL
Cert. Needed: YES NO

Workorder: GH05497

Workorder Name: Vistra - Edwards

Owner Received

Results Requ

Date: 8/29/2023

By: 9/11/2023

Report To:

Diane Billings
 Pace Analytical - IL/MO
 2231 W. Altorfer Drive
 Peoria, IL 61615
 800-752-6651

Subcontract To:

Pace Analytical - Mt Juliet
 12065 Lebanon Rd
 Mt Juliet TN 37122

Requested Analysis

PH-10BDH4321 TRC-2144141
 CR6-20221V
 PH-10BDH4321 TRC-2144141
 CR6-20221V

I203

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers						Radium 226/228	LAB USE ONLY
1	AP075	GRAB	8/28/2023 10:47	GH05497-01	GW							X	-01
2	AW-05	GRAB	8/28/2023 14:49	GH05497-02	GW							X	-02
3	AW-06	GRAB	8/28/2023 16:10	GH05497-03	GW							X	-03
4	AW-08	GRAB	8/28/2023 14:40	GH05497-04	GW							X	-04
5	AW-10	GRAB	8/28/2023 13:04	GH05497-05	GW							X	-05
6	AW-11	GRAB	8/28/2023 11:10	GH05497-06	GW							X	-06

8	XPW03	GRAB	8/28/2023 16:16	GH05497-08	GW								-08
9	EB 02	GRAB	8/28/2023 16:25	GH05497-09									-09
10													

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1		8/31/23 1740		09/01/23 0900	Needs reported as 226, 228 and also combined 226/228
2					Include QC summary and edd
3					

Cooler Temperature on Receipt	°C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	----	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Receipt Checklist 6319 6005 5697

COC Seal Present/Intact: <input checked="" type="checkbox"/>	N	If Applicable
COC Signed/Accurate: <input checked="" type="checkbox"/>	N	VOC Zero Headspace: <input checked="" type="checkbox"/>
Bottles arrive intact: <input checked="" type="checkbox"/>	N	Pres.Correct/Check: <input checked="" type="checkbox"/>
Correct bottles used: <input checked="" type="checkbox"/>	N	
Sufficient volume sent: <input checked="" type="checkbox"/>	N	
RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/>	N	

GAB48 18.2+0=18.2

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1



September 11, 2023

Gail Shindler
Pace Peoria
2231 W Altorfer Dr
Peoria, IL 61615

RE: Project: GH05671/ Vistra - Edwards
Pace Project No.: 50353060

Dear Gail Shindler:

Enclosed are the analytical results for sample(s) received by the laboratory on September 01, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Patterson
heather.patterson@pacelabs.com
(317)228-3146
Project Manager

Enclosures

cc: Diane Billings, Pace IL/MO
Janet Clutters, Pace Analytical Peoria
Taylor Cordle, Pace Analytical Peoria
Jon Robert Handshy, Pace Hazelwood
Amy Holmes, Pace Hazelwood
Chenise Lambert-Sykes, Pace Analytical Peoria
Erin Lane, Pace Peoria
Jennifer Solomon, Pace Analytical Peoria



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: GH05671/ Vistra - Edwards
Pace Project No.: 50353060

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

**SAMPLE SUMMARY**

Project: GH05671/ Vistra - Edwards
Pace Project No.: 50353060

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50353060001	AW-09	Water	08/29/23 11:50	09/01/23 09:30

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

**SAMPLE ANALYTE COUNT**

Project: GH05671/ Vistra - Edwards
Pace Project No.: 50353060

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50353060001	AW-09	RSK 175 Modified	TAY	3	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

**SUMMARY OF DETECTION**

Project: GH05671/ Vistra - Edwards
Pace Project No.: 50353060

Lab Sample ID	Client Sample ID	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50353060001	AW-09						

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: GH05671/ Vistra - Edwards
Pace Project No.: 50353060

Sample: AW-09	Lab ID: 50353060001	Collected: 08/29/23 11:50	Received: 09/01/23 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified Pace Analytical Services - Indianapolis							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA

Project: GH05671/ Vistra - Edwards
Pace Project No.: 50353060

QC Batch:	751804	Analysis Method:	RSK 175 Modified
QC Batch Method:	RSK 175 Modified	Analysis Description:	RSK 175 HEADSPACE
Associated Lab Samples:	50353060001	Laboratory:	Pace Analytical Services - Indianapolis

METHOD BLANK: 3445357 Matrix: Water

Associated Lab Samples: 50353060001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
-----------	-------	--------------	-----------------	----------	------------

LABORATORY CONTROL SAMPLE: 3445358

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
-----------	-------	-------------	------------	-----------	--------------	------------

SAMPLE DUPLICATE: 3445359

Parameter	Units	50353070015 Result	Dup Result	RPD	Max RPD	Qualifiers
-----------	-------	--------------------	------------	-----	---------	------------

SAMPLE DUPLICATE: 3445360

Parameter	Units	50353070016 Result	Dup Result	RPD	Max RPD	Qualifiers
-----------	-------	--------------------	------------	-----	---------	------------

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALIFIERS

Project: GH05671/ Vistra - Edwards
Pace Project No.: 50353060

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GH05671/ Vistra - Edwards
Pace Project No.: 50353060

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50353060001	AW-09	RSK 175 Modified	751804		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

Internal Transfer Chain of Custod

WO# : 50353060

State of Origin: IL
Cert. Needed: YES NO

Workorder: GH05671

Workorder Name: Vistra - Edwards

Owner Received

Date: 8/29/2023

Results Requ

By:

9/12/2023

Report To:	Subcontract To:	Requested Analysis
Diane Billings Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical Services, LLC 7726 Moller Road Indianapolis, IN 46268 (317)228-3105	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers										LAB USE ONLY	
						RSK 175											
1	AW-09	GRAB	8/29/2023 11:50	GH05671-01	GW												X
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1		8/31/23 17:00	Fedex		
2	Fedex	9/1/23 9:30	T. Harrel	9/1/23 9:30	
3					Include QC summary and edd

Cooler Temperature on Receipt	*C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	----	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents:

9/11/23 19:43 TH

1. Courier: <input checked="" type="checkbox"/> FED EX <input type="checkbox"/> UPS <input type="checkbox"/> CLIENT <input type="checkbox"/> PACE <input type="checkbox"/> NOW/JETT <input type="checkbox"/> OTHER _____	5. Packing Material: <input type="checkbox"/> Bubble Wrap <input checked="" type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input type="checkbox"/> Other _____
2. Custody Seal on Cooler/Box Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Ice Type: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None
(If yes)Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (leave blank if no seals were present)	7. If temp. is over 6°C or under 0°C, was the PM notified?: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cooler temp should be above freezing to 6°C
3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H	
4. Cooler Temperature(s): <input type="text" value="1.8/2.1"/> <input type="text"/> <input type="text"/> <input type="text"/>	
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)	

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED? Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis:		<input checked="" type="checkbox"/>	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			<input checked="" type="checkbox"/>
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC? Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?			<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?			<input checked="" type="checkbox"/>

COMMENTS:

Sample Container Count
** Place a RED dot on containers
that are out of conformance **

COC Line Item	WG FU	WG KU	BG 1U	R	DG9H	VG9H	VOA VIAL HS >6mm	VG9U VG9D DG9D	AMBER GLASS				PLASTIC				OTHER			Matrix										
									MeOH (only)	SBS	DI	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit
									Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	ZnAc Black																		
1																														
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

Container Codes

Glass			
DG9H	40mL HCl amber vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio, clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WG FU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic			
BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
BP2S	500mL H2SO4 plastic	R	Terracore Kit
BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
BP2Z	500mL NaOH, Zn Ac	GN	General Container
BP3B	250mL NaOH plastic	U	Summa Can (air sample)
BP3N	250mL HNO3 plastic	WT	Water
BP3F	250mL HNO3 plastic-field filtered	SL	Solid
BP3U	250mL unpreserved plastic	OL	Oil
BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

 ANALYTICAL REPORT

October 03, 2023

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

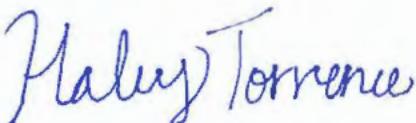
8 Al

9 Sc

Pace IR - Peoria, IL

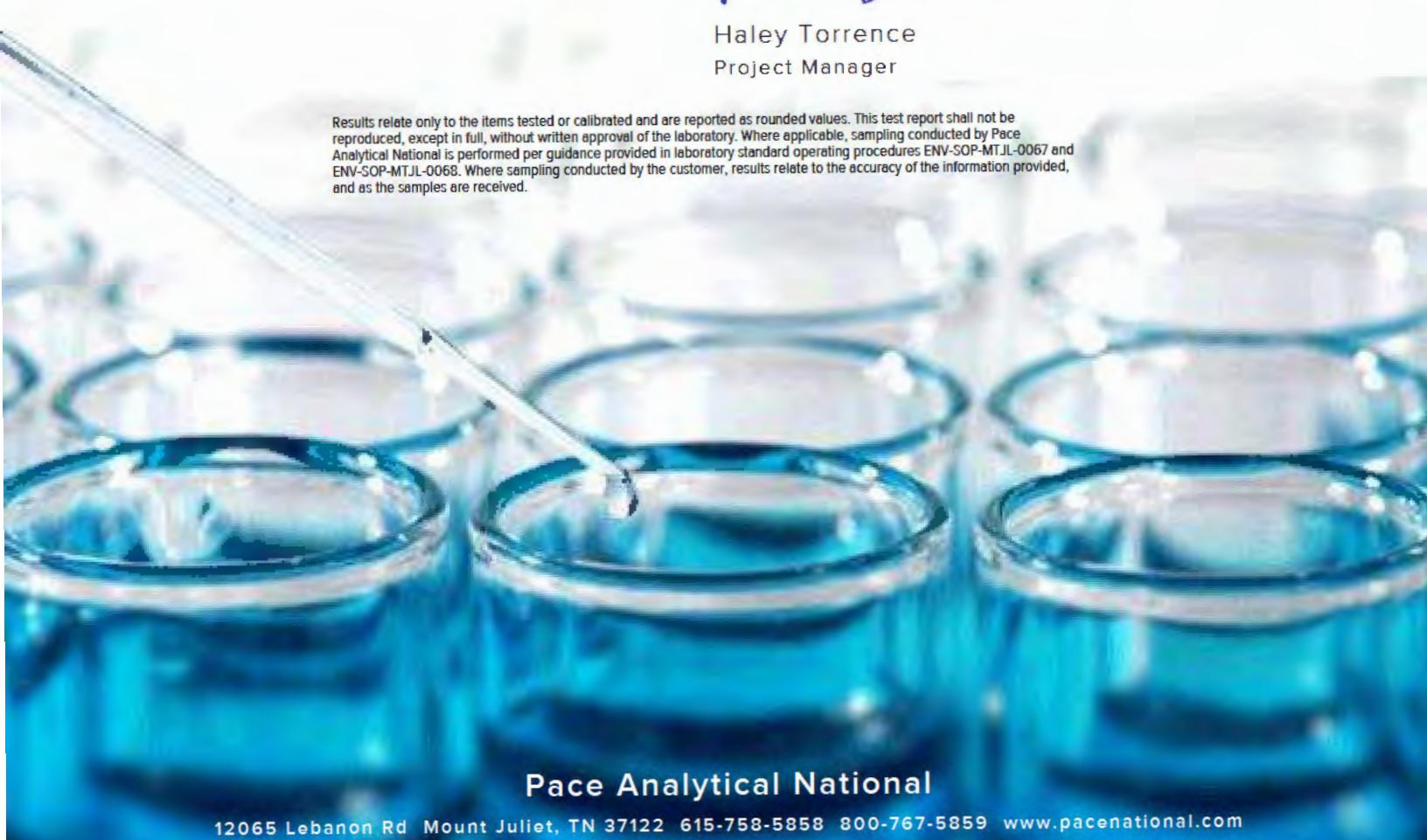
Sample Delivery Group: L1652265
Samples Received: 09/01/2023
Project Number: GH05671
Description: Vistra-Edwards
Site: 001
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:



Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

181

Cp: Cover Page

1

¹Cp**Tc: Table of Contents**

2

²Tc**Ss: Sample Summary**

3

³Ss**Cn: Case Narrative**

4

⁴Cn**Sr: Sample Results**

5

⁵Sr**AW-09 L1652265-01**

5

⁶Qc**Qc: Quality Control Summary**

6

Radiochemistry by Method 904/9320

6

Radiochemistry by Method SM7500Ra B M

7

Gl: Glossary of Terms

8

⁷Gl**Al: Accreditations & Locations**

9

⁸Al**Sc: Sample Chain of Custody**

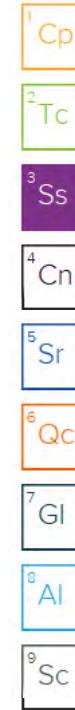
10

⁹Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

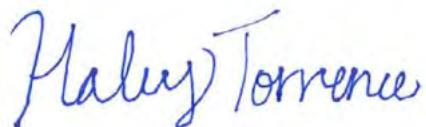
AW-09 L1652265-01 Non-Potable Water

Method	Batch	Dilution	Collected by	Collected date/time	Received date/time	Location
			Preparation date/time	Analysis date/time	Analyst	
Radiochemistry by Method 904/9320	WG2132560	1	09/14/23 18:09	09/18/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2130036	1	09/11/23 15:41	09/18/23 21:28	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2130036	1	09/11/23 15:41	09/15/23 19:27	RGT	Mt. Juliet, TN



CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

AW-09

APPENDIX A.

Data not pertinent to the compliance monitoring was removed.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Collected date/
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE RESULTS -01

L1652265

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.12		0.287	0.506	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Barium	112			30.0-143	09/18/2023 21:28	<u>WG2132560</u>
(<i>T</i>) Yttrium	100			30.0-136	09/18/2023 21:28	<u>WG2132560</u>

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.52		0.374	0.551	09/18/2023 21:28	<u>WG2130036</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.402		0.240	0.218	09/15/2023 19:27	<u>WG2130036</u>
(<i>T</i>) Barium-133	91.8			30.0-143	09/15/2023 19:27	<u>WG2130036</u>

WG2132560

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Radiochemistry Test ID: 004/9320
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.
QUALITY CONTROL SUMMARY

L1652265-01

Method Blank (MB)

(MB) R3975641-1 09/18/23 21:28

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.779		0.218	0.390
(<i>T</i>) Barium	79.4		79.4	
(<i>T</i>) Yttrium	103		103	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸Al**L1650771-01 Original Sample (OS) • Duplicate (DUP)**

(OS) L1650771-01 09/18/23 21:28 • (DUP) R3975641-5 09/18/23 21:28

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-228	1.80	0.243	0.400	1.93	0.465	0.821	1	6.65	0.236		20	3
(<i>T</i>) Barium	121			84.6	84.6							
(<i>T</i>) Yttrium	92.0			83.2	83.2							

⁹Sc**Laboratory Control Sample (LCS)**

(LCS) R3975641-2 09/18/23 21:28

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	4.90	97.9	80.0-120	
(<i>T</i>) Barium			96.1		
(<i>T</i>) Yttrium			98.1		

L1650762-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1650762-07 09/18/23 21:28 • (MS) R3975641-3 09/18/23 21:28 • (MSD) R3975641-4 09/18/23 21:28

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-228	10.0	-0.538	8.83	9.60	88.3	96.0	1	70.0-130			8.35		20
(<i>T</i>) Barium		135			126	112							
(<i>T</i>) Yttrium		108			87.6	95.3							

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸Al

WG2130038

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Radiochemistry Methods SM7500B M
EDWARDS POWER PLANT, ASH POND
EDW-257-301

~~Data not pertinent to the compliance monitoring was removed.~~
QUALITY CONTROL SUMMARY

L1652265-01**Method Blank (MB)**

(MB) R3981103-1 09/15/23 15:33

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
Radium-226	0.00320	U	0.0756	0.145
(<i>T</i>) Barium-133	52.0		52.0	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷GI⁸AI⁹Sc**L1652263-09 Original Sample (OS) • Duplicate (DUP)**

(OS) L1652263-09 09/15/23 19:27 • (DUP) R3981103-5 09/15/23 15:33

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
Radium-226	0.228	0.212	0.264	-0.0166	0.126	0.300	1	200	0.993	U	20	3
(<i>T</i>) Barium-133	107			86.4	86.4							

Laboratory Control Sample (LCS)

(LCS) R3981103-2 09/15/23 15:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Radium-226	5.01	5.62	112	80.0-120	
(<i>T</i>) Barium-133			64.5		

L1651386-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1651386-07 09/15/23 19:27 • (MS) R3981103-3 09/15/23 15:33 • (MSD) R3981103-4 09/15/23 15:33

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
Radium-226	20.0	0.799	21.5	17.9	104	85.4	1	75.0-125			18.4		20
(<i>T</i>) Barium-133		92.7			82.5	84.5							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier

Description

U	Below Detectable Limits: Indicates that the analyte was not detected.
---	---

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-05-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1c}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	990093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ^c	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA—Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ AI

⁹ SC

APPENDIX A. Data not pertinent to the
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed

Internal Transfer Chain of Custody

State of Origin: IL
Cert. Needed: YES NO

Workorder: GH05671

Workorder Name: Vistra - Edwards

Owner Received

Date: 8/29/2023

Results Regu

9/12/2023

Cooler Temperature on Receipt _____ °C Custody Seal Y or N

Received on Ice Yacht

Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Receipt Checklist	6319 6005 5697
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Pres.Correct/Check: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N GBA8
RAI Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N 18-2 to 18-2

FMT-ALL-C-002rev.00 24March200

Page 1 of 1

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Data not pertinent to the compliance monitoring was removed.



Ship to :

Pace Analytical Services, LLC
1638 Roslynwood Rd - Suites 2,3,4
Greensburg, PA 15601
www.pacealabs.com

(724)850-5600

INTER_LABORATORY WORK ORDER # GH05671
(To be complete by sending lab)

Sending Project No:	GH05671
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	8/30/2023
REQUESTED COMPLETION DATE:	9/12/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Diane Billings
Receiving Region	MT JULIET	External Client	Vistra - Edwards
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: _____ IL

WORK REQUESTED					
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price
Radium 226/228		1		1	\$242.10
		1		1	\$0.00
		1		1	\$0.00
TOTAL					\$242.10

Special Requirements: _____ Report as 226, 228 & combined 226/228. Include QC summary

Receiving Region Department	Actng. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$242.10	\$193.68	\$48.42
* Custom Revenue Allocation		TOTAL	\$193.68	\$48.42

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: Yes No

CONFIRMATION OF WORK COMPLETED
Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

GHO4366
VMV 8-22-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp	REGULATORY AGENCY
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A	NPDES GROUND WATER DRINKING WATER
Phone: (217) 753-8911	Fax:	Project Name:		Quote Reference:	UST RCRA OTHER
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:	Site Location: IL STATE:
				Profile #: _____	

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives		Y/N	Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./Lab I.D.
		MATRIX	CODE					MATRIX CODE (see field notes to left)	SAMPLE TYPE (G=GRAB C=COMP)		Unpreserved	H ₂ SO ₄		
1	AP05S													
2	AP07S													
4	AW-01													
5	AW-05													
6	AW-06													
7	AW-08													
8	AW-09													
9	AW-10													
10	AW-11													
11	AW-14													
12	AW-15													
13	AW-15S													
14	AW-16	WT	6 8/21/23	1428										
15	AW-17	WT	6 8/21/23	1601										
16	AW-18													

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q3-Rev 0		<i>[Signature]</i>		8/21/23	1707	<i>[Signature]</i>		8/22/23	700	0.6	Y	N	<i>[Signature]</i>

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	<i>Aaron Pendleton</i>
SIGNATURE of SAMPLER:	<i>[Signature]</i>
DATE Signed (MM/DD/YY): 08/21/23	

G1104366
MW 8-22-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp	REGULATORY AGENCY
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A	NPDES GROUND WATER DRINKING WATER
Phone: (217) 753-8911	Fax:	Project Name:		Quote Reference:	UST RCRA OTHER
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:	Site Location: STATE: IL
				Profile #:	

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Project No./Lab I.D.
		MATRIX	CODE						MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME		
1	AW-19	DR WT WW P SL OL WP AR OT TS												
3	AW-21													
6	SG-01													
7	SG-02													
8	SG-03													
9	XPW01A	WT 6	8/21/23	1515										
10	XPW02													
11	XPW03													
12	Field Blank													
13	AW 16 Dup	WT 6	8/21/23	1428										
14	X PW01A Dup	WT 6	8/21/23	1515										
15														
16														
ADDITIONAL COMMENTS		RElinquished By / Affiliation		DATE	TIME	Accepted By / Affiliation		DATE	TIME	SAMPLE CONDITIONS				
EDW-23Q3-Rev 0		<i>Brian Voelker</i>		8/21/23	1707	<i>V. Lym</i>		8-22-23	700	0.6	Y	N	Y	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed

(MM/DD/YY): 08/21/23

Temp in °C	Received on ice (Y/N)
Custody Sealed (Y/N)	Sample intact (Y/N)

G404572
vnu 8-22-27

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey			
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY		
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Phone: (217) 753-8911	Fax:	Quote Reference:	UST	RCRA	OTHER
Requested Due Date/TAT:	10 day	Project Name:	Project Manager:	Site Location:	STATE: IL
Project Number:	2285	Profile #:			

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		DATE	TIME	SAMPLE TEMP AT COLLECTION	COLLECTED						Preservatives				Requested Analysis Filtered (Y/N)				Residual Criteria (Y/N)	Project No./Lab I.D.
		MATRIX	CODE				MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	# OF CONTAINERS	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test	EDW-237-301	EDW-845-301		
1	AP05S																					
2	AP07S																					
4	AW-01	WT	G	8/22/23	14:28	15	X	X	X	X	X	X	X	X	X	EDW-237-301	EDW-845-301	EDW-SUP-000	EDW-CAP-301			
5	AW-05																					
6	AW-06																					
7	AW-08																					
8	AW-09																					
9	AW-10																					
10	AW-11																					
11	AW-14																					
12	AW-15																					
13	AW-15S																					
14	AW-16																					
15	AW-17																					
16	AW-18	WT	G	8/22/23	11:11	15	X	X	X	X	X	X	X	X	X	EDW-237-301	EDW-845-301	EDW-SUP-000	EDW-CAP-301			
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE	TIME	ACCEPTED BY / AFFILIATION			DATE	TIME	SAMPLE CONDITIONS									
EDW-23Q3-Rev 0			<i>[Signature]</i>			8/22/23	1640	<i>[Signature]</i>			8/22/23	1640	18.2	Y	N	Y	Temp in °C	Refrigerated on Ice (Y/N)	Custody Sealed/Colder (Y/N)	Sample In tact (Y/N)		
SAMPLER NAME AND SIGNATURE																						
PRINT Name of SAMPLER: <i>Aaron Rumberton</i>																						
SIGNATURE of SAMPLER: <i>[Signature]</i>															DATE Signed (MM/DD/YY):	08/22/23						

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 2 of 2	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey		Company Name: Vistra Corp	Address: see Section A	REGULATORY AGENCY	
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Phone Reference:		Project Manager:	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Project Name:	Profile #:		UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Requested Due Date/TAT: 10 day	Project Number: 2285		Site Location: IL	STATE: IL	

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, D-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		DATE	TIME	SAMPLE TEMP AT COLLECTION	Preservatives										Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./Lab I.D.		
		MATRIX	CODE				MATRIX CODE	BATCH	C=COMP	# OF CONTAINERS	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other			Analysis Test ↓	EDW-257-301
1	AW-19	WT	6	8/22/23	1257	16	X	X	X	X	X	X	X	X	X	EDW-257-301	EDW-846-301	EDW-SUP-000	EDW-CAP-301			
3	AW-21	WT	6	8/22/23	11:04	15	WT	WT	WT	WT	WT	WT	WT	WT	WT							
6	SG-01																					
7	SG-02																					
8	SG-03																					
9	XPW01A																					
10	XPW02	WT	6	8/22/23	1557	15	WT	WT	WT	WT	WT	WT	WT	WT	WT	X						
11	XPW03																					
12	Field Blank	WT	6	8/22/23	11:11	15	WT	WT	WT	WT	WT	WT	WT	WT	WT	X						
13	AW01 Dwp	WT	6	8/22/23	1428	15	WT	WT	WT	WT	WT	WT	WT	WT	WT	X						
14																						
15																						
16																						
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS											
EDW-23Q3-Rev 0			<i>Aaron F. Voelker</i>		8/22/23	1640	<i>Valynne</i>		8/22/23	1640	18.2	Y	N	Y								

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: *Aaron F. Voelker*SIGNATURE of SAMPLER: *Aaron F. Voelker*DATE Signed
(MM/DD/YYYY): 08/22/23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Sample In tact (Y/N)
------------	-----------------------	-----------------------------	----------------------

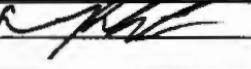
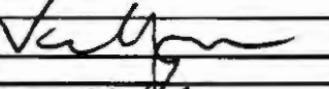
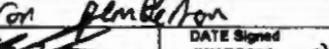
Data not pertinent to the compliance monitoring was removed.

GHO4878
VMW 8-24-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2		
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey				
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp		REGULATORY AGENCY		
				Address: see Section A		NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Quote Reference:		UST	RCRA	OTHER
Phone: (217) 753-8911		Fax:		Project Name:		Site Location:	IL	
Requested Due Date/TAT:		10 day		Project Number: 2285		STATE:		

ITEM #	Section D Required Client Information	Valid Matrix Codes		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Y/N	Requested Analysis Filtered (Y/N)						Residual Chlorine (Y/N)	Project No./Lab I.D.
		MATRIX	CODE			DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈	Methanol		Other	Analysis Test	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-CAP-301		
1	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	AP05S	WT G	8/23/23	1304	15 X	X X					X	X	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-CAP-301							
2		AP07S																						
4	AW-01																							
5	AW-05																							
6	AW-06																							
7	AW-08																							
8	AW-09																							
9	AW-10																							
10	AW-11																							
11	AW-14	WT G	8/23/23	1553	15 X	X X						X												
12	AW-15	WT G	8/23/23	1255	15 X	X X						X												
13	AW-15S	WT G	8/23/23	1425	15 X	X X						X												
14	AW-16																							
15	AW-17																							
16	AW-18																							
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS													
EDW-23Q3-Rev 0					8/23/23	1624			8/23/23	1634	117	Y	N	Y										
SAMPLER NAME AND SIGNATURE												Temp in °C												
PRINT Name of SAMPLER: 												Reached on ice (Y/N)												
SIGNATURE of SAMPLER: 												Custody Sealed (Y/N)												
												Samples intact (Y/N)												

GHO4878
VMM 8-24-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 2 of 2																																																																																								
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey		Company Name: Vistra Corp	Address: see Section A	REGULATORY AGENCY																																																																																								
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Circle Preference:		NPDES	GROUND WATER	DRINKING WATER																																																																																								
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Project Manager:		UST	RCRA	OTHER																																																																																								
Phone: (217) 753-8911	Fax:	Project Number:	Profile #:	Site Location:	IL																																																																																									
Requested Due Date/TAT:	10 day																																																																																													
ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		COLLECTED	SAMPLE TEMP AT COLLECTION	Requested Analysis Filtered (Y/N)																																																																																								
		MATRIX	CODE			MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB, C=COMP)	Preservatives	Y/N																																																																																					
1	AW-19	DW	WT	H ₂ SO ₄	EDW-257-301		Residual Chlorine (Y/N)																																																																																							
3	AW-21	WT	WW	HNO ₃	EDW-845-301		Project No./Lab I.D.																																																																																							
6	SG-01	SL	P	HCl	EDW-SUP-000																																																																																									
7	SG-02	DL	WP	NaOH	EDW-CAP-301																																																																																									
8	SG-03	WP	AR	Na ₂ S ₂ O ₈																																																																																										
9	XPW01A	OT	Other	Methanol																																																																																										
10	XPW02			Other																																																																																										
11	XPW03																																																																																													
12	Field Blank																																																																																													
13	EBO1	WT	8/23/23	1630	15xx	X																																																																																								
14																																																																																														
15																																																																																														
16																																																																																														
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS																																																																																					
EDW-23Q3-Rev 0		<i>[Signature]</i>		8/23/23	1634	<i>[Signature]</i>	8-23-23	1634	117	Y	N																																																																																			
<table border="1"> <tr> <td colspan="10">SAMPLER NAME AND SIGNATURE</td> <td rowspan="2">Temp in °C</td> </tr> <tr> <td colspan="10"> PRINT Name of SAMPLER: Aaron Penberth SIGNATURE of SAMPLER: <i>[Signature]</i> </td> </tr> <tr> <td colspan="10">DATE Signed (MM/DD/YYYY): 08/23/23</td> <td rowspan="2">Received on Ice (Y/N)</td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> <td rowspan="2">Container Sealed (Y/N)</td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> <td rowspan="2">Sampled Intact (Y/N)</td> </tr> <tr> <td colspan="10"></td> </tr> </table>											SAMPLER NAME AND SIGNATURE										Temp in °C	PRINT Name of SAMPLER: Aaron Penberth SIGNATURE of SAMPLER: <i>[Signature]</i>										DATE Signed (MM/DD/YYYY): 08/23/23										Received on Ice (Y/N)																					Container Sealed (Y/N)																					Sampled Intact (Y/N)										
SAMPLER NAME AND SIGNATURE										Temp in °C																																																																																				
PRINT Name of SAMPLER: Aaron Penberth SIGNATURE of SAMPLER: <i>[Signature]</i>																																																																																														
DATE Signed (MM/DD/YYYY): 08/23/23										Received on Ice (Y/N)																																																																																				
										Container Sealed (Y/N)																																																																																				
										Sampled Intact (Y/N)																																																																																				

GHO5497
Mw 8-29-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2		
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey						
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULATORY AGENCY					
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A.	NPDES	GROUND WATER	DRINKING WATER			
Phone: (217) 753-8911	Fax:	Circle Preference:	UST	RCRA	OTHER			
Requested Due Date/TAT:	10 day	Project Name:	Site Location:					
		Project Number: 2285	STATE:	IL				

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	MATRIX CODE (new valid codes to left)	SAMPLE TYPE (GCRMA Codes)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Project No./Lab LD.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NiOH	Na ₂ S ₂ O ₃		Methanol	Other	↓ Analysis Test ↓	EDW-257-301		
1	AP05S																				
2	AP07S	WT	6	8/28/23	1047		15	XXX	X												
4	AW-01																				
5	AW-05	WT	6	8/28/23	1449		15	XXX	X												
6	AW-06	WT	6	8/28/23	1610		15	XXX	X												
7	AW-08	WT	6	8/28/23	1440		15	XXX	X												
8	AW-09																				
9	AW-10	WT	6	8/28/23	1304		15	XXX	X												
10	AW-11	WT	6	8/28/23	1110		15	XXX	X												
11	AW-14																				
12	AW-15																				
13	AW-16S																				
14	AW-16																				
15	AW-17																				
16	AW-18																				
ADDITIONAL COMMENTS			RElinquished BY / APPLIATION			DATE	TIME	ACCEPTED BY / APPLIATION			DATE	TIME	SAMPLE CONDITIONS								
EDW-23Q3-Rev 0			<i>Brian Voelker</i>			08/28/23	1701	<i>Valerie</i>			08/29/23	700	29	Y	N						

SAMPLER NAME AND SIGNATURE		Temp in °C	Received in hrs (TMR)	Chain of Custody # (TMR)	Sample Index (TMR)
PRINT Name of SAMPLER:	<i>Aaron Remker</i>				
SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed MM/DD/YY:	08/28/23		

APPENDIX A. **Data not pertinent to the compliance monitoring**
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

This document is a LEGAL DOCUMENT. All rights reserved by Statewide Legal Services, Inc.

Section A

卷之三

Section C

四

Company:	Vistra Corp	Report To:	Brian Voukier	Attention:	Jason Shuckey	
Address:	13498 E. 900th St	Copy To:	Jason Shuckey	Company Name:	Vistra Corp	
Email To:	Brian.Voukier@vistra.com	Purchase Order No.:		Address:	200 Section A	
Phone:	(217) 753-8911	Project Name:		NPDES	GROUND WATER	DRINKING WATER
Requested Due Date/TM:	10 day	Project Number:	2285	UST	RCRA	OTHER
		Office #:		Site Location	IL	STATE:

6	SG-01										
7	SG-02										
8	SG-03										
9	XPW01A										
10	XPW02										
11	XPW03										
12	Field Blank										
13	EROL	Mr. L	8/28/23	16:16	(S x x x)						
14		Mr. L	8/28/23	16:25	15 x xx						
15											
16											
17											
18											
ADDITIONAL COMMENTS		RECORDED BY / APPROVAL		DATE	TIME	ACCEPTED BY / APPROVAL					
EDW-23Q3-Rev 0		<i>R. M. L.</i>		08/28/23	17:01						
DAMPER NAME AND SIGNATURE											
PRINT Name of Sampler: <i>Progen Plummer</i>											
SIGNATURE OF SAMPLER: <i>R. M. L.</i>											
DATE Sampled: <i>08/28/23</i>											
(UNKNOWN): <i>08/28/23</i>											
Temp in °C											
Received on ice (Y/N)											
Custody Sealed/Cooler (Y/N)											
Samples intact (Y/N)											

Comment

G-1105497
1968-829-23

GH05671
JWW 8-29-23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2	
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey		Company Name: Vistra Corp	REGULATORY AGENCY		
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Address: see Section A		NPDES	GROUND WATER	DRINKING WATER	
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quan tification		UST	RCRA	OTHER	
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:		Site Location:	IL		
Requested Due Date/TAT:	10 day	Project Number: 2285	Profile #:	STATE:			

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOLIDS SL OIL OL WPE WP AIR AR OTHER OT TURB TUR	MATRIX CODE (use valid codes in list) SAMPLE TYPE (G=GRAB	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Project No./Lab I.D.
				DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol		Other	↓ Analysis Test ↓	EDW-257-301	EDW-846-301		
1	APOSS																			
2	AP07S																			
4	AW-01																			
5	AW-05																			
6	AW-06																			
7	AW-08																			
8	AW-09			8/29/23	1130	15														
9	AW-10																			
10	AW-11																			
11	AW-14																			
12	AW-15																			
13	AW-15S																			
14	AW-16																			
15	AW-17																			
16	AW-18																			
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS									
EDW-23Q3-Rev 0			Joe R. Reed		1409	8/29/23	V. L. J.		T-29-23	1409	17	Y	N	Y	Temp in °C	Reashed on ice (Y/N)	Quality Sealed Container (Y/N)	Sample intact (Y/N)		
			Sampler Name and Signature		PRINT Name of Sampler:		Signature of Sampler:		DATE Signed (MM/DD/YY):											
			Joe R. Reed		Joe R. Reed		Joseph R. Reed		8/29/23											

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301



Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

December 02, 2023

Brian Voelker
Vistra - Edwards
604 Pierce Boulevard
O'Fallon, IL 62269

Dear Brian Voelker:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

A handwritten signature in black ink that reads "Diane Billings".

Diane Billings
Project Manager



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GK00258

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GK00477

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GK00654

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GK00898

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GK03315

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



ANALYTICAL RESULTS

Sample: GK00258-01

Sampled: 11/01/23 11:33

Name: AW-17

Received: 11/01/23 16:09

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	53	mg/L	Q4	11/08/23 15:09	10	10	11/08/23 15:09	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L	Q3	11/08/23 14:15	1	0.250	11/08/23 14:15	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		11/08/23 14:15	1	1.0	11/08/23 14:15	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26.8	Feet		11/01/23 11:33	1		11/01/23 11:33	FIELD	Field*
Dissolved oxygen, Field	0.88	mg/L		11/01/23 11:33	1		11/01/23 11:33	FIELD	Field*
Oxidation Reduction Potential	-115	mV		11/01/23 11:33	1	-500	11/01/23 11:33	FIELD	Field*
pH, Field Measured	6.80	pH Units		11/01/23 11:33	1		11/01/23 11:33	FIELD	Field*
Specific Conductance, Field Measured	1840	umhos/cm		11/01/23 11:33	1		11/01/23 11:33	FIELD	Field*
Temperature, Field Measured	13.1	°C		11/01/23 11:33	1		11/01/23 11:33	FIELD	Field*
Turbidity, Field Measured	118	NTU		11/01/23 11:33	1	0.00	11/01/23 11:33	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	890	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1000	mg/L		11/02/23 10:02	1	26	11/02/23 11:10	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/02/23 08:47	5	3.0	11/09/23 12:01	TJJ	EPA 6020A
Arsenic	3.6	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:18	TJJ	EPA 6020A
Barium	970	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:01	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:18	TJJ	EPA 6020A
Boron	420	ug/L		11/02/23 08:47	5	10	11/10/23 11:18	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:01	TJJ	EPA 6020A
Calcium	100	mg/L		11/02/23 08:47	5	0.20	11/09/23 12:01	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/02/23 08:47	5	4.0	11/09/23 12:01	TJJ	EPA 6020A
Cobalt	2.2	ug/L		11/02/23 08:47	5	2.0	11/09/23 12:01	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:01	TJJ	EPA 6020A
Magnesium	41	mg/L		11/02/23 08:47	5	0.10	11/09/23 12:01	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/02/23 08:47	5	0.20	11/09/23 12:01	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:01	TJJ	EPA 6020A
Potassium	4.2	mg/L		11/02/23 08:47	5	0.10	11/09/23 12:01	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:18	TJJ	EPA 6020A
Sodium	210	mg/L		11/02/23 08:47	5	0.10	11/09/23 12:01	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00258-01

Sampled: 11/01/23 11:33

Name: AW-17

Received: 11/01/23 16:09

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:01	TJJ	EPA 6020A
Lithium	33	ug/L		11/02/23 08:47	1	20	11/06/23 11:04	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00258-02

Sampled: 11/01/23 12:55

Name: AW-18

Received: 11/01/23 16:09

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	89	mg/L		11/08/23 15:45	10	10	11/08/23 15:45	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/08/23 15:27	1	0.250	11/08/23 15:27	CRD	EPA 300.0 REV 2.1
Sulfate	8.2	mg/L		11/08/23 15:27	1	1.0	11/08/23 15:27	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	28.03	Feet		11/01/23 12:55	1		11/01/23 12:55	FIELD	Field*
Dissolved oxygen, Field	0.88	mg/L		11/01/23 12:55	1		11/01/23 12:55	FIELD	Field*
Oxidation Reduction Potential	-111	mV		11/01/23 12:55	1	-500	11/01/23 12:55	FIELD	Field*
pH, Field Measured	6.84	pH Units		11/01/23 12:55	1		11/01/23 12:55	FIELD	Field*
Specific Conductance, Field Measured	1840	umhos/cm		11/01/23 12:55	1		11/01/23 12:55	FIELD	Field*
Temperature, Field Measured	13.4	°C		11/01/23 12:55	1		11/01/23 12:55	FIELD	Field*
Turbidity, Field Measured	149	NTU		11/01/23 12:55	1	0.00	11/01/23 12:55	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	780	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	800	mg/L	M	11/02/23 10:02	1	26	11/02/23 11:10	LAL2	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		11/02/23 08:47	5	3.0	11/09/23 12:05	TJJ	EPA 6020A
Arsenic	4.2	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:22	TJJ	EPA 6020A
Barium	1500	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:05	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:22	TJJ	EPA 6020A
Boron	330	ug/L		11/02/23 08:47	5	10	11/10/23 11:22	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:05	TJJ	EPA 6020A
Calcium	120	mg/L		11/02/23 08:47	5	0.20	11/09/23 12:05	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/02/23 08:47	5	4.0	11/09/23 12:05	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/02/23 08:47	5	2.0	11/09/23 12:05	TJJ	EPA 6020A
Lead	1.3	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:05	TJJ	EPA 6020A
Magnesium	55	mg/L		11/02/23 08:47	5	0.10	11/09/23 12:05	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/02/23 08:47	5	0.20	11/09/23 12:05	TJJ	EPA 6020A
Molybdenum	1.5	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:05	TJJ	EPA 6020A
Potassium	4.5	mg/L		11/02/23 08:47	5	0.10	11/09/23 12:05	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:22	TJJ	EPA 6020A
Sodium	200	mg/L		11/02/23 08:47	5	0.10	11/09/23 12:05	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00258-02

Sampled: 11/01/23 12:55

Name: AW-18

Received: 11/01/23 16:09

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:05	TJJ	EPA 6020A
Lithium	27	ug/L		11/02/23 08:47	1	20	11/06/23 11:06	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00258-03

Sampled: 11/01/23 14:12

Name: AW-19

Received: 11/01/23 16:09

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	77	mg/L		11/08/23 16:21	10	10	11/08/23 16:21	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/08/23 16:03	1	0.250	11/08/23 16:03	CRD	EPA 300.0 REV 2.1
Sulfate	57	mg/L		11/08/23 16:21	10	10	11/08/23 16:21	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.19	Feet		11/01/23 14:12	1		11/01/23 14:12	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		11/01/23 14:12	1		11/01/23 14:12	FIELD	Field*
Oxidation Reduction Potential	-66.0	mV		11/01/23 14:12	1	-500	11/01/23 14:12	FIELD	Field*
pH, Field Measured	7.05	pH Units		11/01/23 14:12	1		11/01/23 14:12	FIELD	Field*
Specific Conductance, Field Measured	1140	umhos/cm		11/01/23 14:12	1		11/01/23 14:12	FIELD	Field*
Temperature, Field Measured	14.4	°C		11/01/23 14:12	1		11/01/23 14:12	FIELD	Field*
Turbidity, Field Measured	79.1	NTU		11/01/23 14:12	1	0.00	11/01/23 14:12	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	460	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	760	mg/L		11/02/23 10:02	1	26	11/02/23 11:10	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/02/23 08:47	5	3.0	11/09/23 12:25	TJJ	EPA 6020A
Arsenic	10	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:40	TJJ	EPA 6020A
Barium	190	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:25	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:40	TJJ	EPA 6020A
Boron	3200	ug/L		11/02/23 08:47	5	10	11/10/23 11:40	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:25	TJJ	EPA 6020A
Calcium	120	mg/L		11/02/23 08:47	5	0.20	11/09/23 12:25	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/02/23 08:47	5	4.0	11/09/23 12:25	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/02/23 08:47	5	2.0	11/09/23 12:25	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:25	TJJ	EPA 6020A
Magnesium	54	mg/L		11/02/23 08:47	5	0.10	11/09/23 12:25	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/02/23 08:47	5	0.20	11/09/23 12:25	TJJ	EPA 6020A
Molybdenum	4.1	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:25	TJJ	EPA 6020A
Potassium	0.90	mg/L		11/02/23 08:47	5	0.10	11/09/23 12:25	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:40	TJJ	EPA 6020A
Sodium	54	mg/L		11/02/23 08:47	5	0.10	11/09/23 12:25	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00258-03

Sampled: 11/01/23 14:12

Name: AW-19

Received: 11/01/23 16:09

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 12:25	TJJ	EPA 6020A
Lithium	< 20	ug/L		11/02/23 08:47	1	20	11/06/23 11:08	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00477-01

Sampled: 11/02/23 13:19

Name: AW-15

Received: 11/02/23 16:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	34	mg/L	Q4	11/08/23 21:43	10	10	11/08/23 21:43	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/08/23 21:25	1	0.250	11/08/23 21:25	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		11/08/23 21:25	1	1.0	11/08/23 21:25	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.11	Feet		11/02/23 13:19	1		11/02/23 13:19	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		11/02/23 13:19	1		11/02/23 13:19	FIELD	Field*
Oxidation Reduction Potential	-95.0	mV		11/02/23 13:19	1	-500	11/02/23 13:19	FIELD	Field*
pH, Field Measured	6.98	pH Units		11/02/23 13:19	1		11/02/23 13:19	FIELD	Field*
Specific Conductance, Field Measured	1948	umhos/cm		11/02/23 13:19	1		11/02/23 13:19	FIELD	Field*
Temperature, Field Measured	14.0	°C		11/02/23 13:19	1		11/02/23 13:19	FIELD	Field*
Turbidity, Field Measured	2.50	NTU		11/02/23 13:19	1	0.00	11/02/23 13:19	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	1000	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/06/23 09:04	5	3.0	11/14/23 13:28	TJJ	EPA 6020A
Arsenic	1.8	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:28	TJJ	EPA 6020A
Barium	1900	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:28	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/13/23 15:23	TJJ	EPA 6020A
Boron	400	ug/L		11/06/23 09:04	5	10	11/13/23 15:23	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:28	TJJ	EPA 6020A
Calcium	140	mg/L		11/06/23 09:04	5	0.20	11/14/23 13:28	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/06/23 09:04	5	4.0	11/14/23 13:28	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/06/23 09:04	5	2.0	11/14/23 13:28	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:28	TJJ	EPA 6020A
Magnesium	59	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:28	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/06/23 09:04	5	0.20	11/14/23 13:28	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:28	TJJ	EPA 6020A
Potassium	4.4	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:28	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 16:52	KMC	EPA 6020A
Sodium	220	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:28	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:28	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00477-01

Sampled: 11/02/23 13:19

Name: AW-15

Received: 11/02/23 16:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Lithium	29	ug/L		11/06/23 09:04	1	20	11/13/23 11:11	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00477-02

Sampled: 11/02/23 14:31

Name: AW-15S

Received: 11/02/23 16:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	30	mg/L		11/08/23 22:20	10	10	11/08/23 22:20	CRD	EPA 300.0 REV 2.1
Sulfate	550	mg/L		11/08/23 23:14	100	100	11/08/23 23:14	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.86	Feet		11/02/23 14:31	1		11/02/23 14:31	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		11/02/23 14:31	1		11/02/23 14:31	FIELD	Field*
Oxidation Reduction Potential	1.00	mV		11/02/23 14:31	1	-500	11/02/23 14:31	FIELD	Field*
pH, Field Measured	6.96	pH Units		11/02/23 14:31	1		11/02/23 14:31	FIELD	Field*
Specific Conductance, Field Measured	1795	umhos/cm		11/02/23 14:31	1		11/02/23 14:31	FIELD	Field*
Temperature, Field Measured	16.1	°C		11/02/23 14:31	1		11/02/23 14:31	FIELD	Field*
Turbidity, Field Measured	1.60	NTU		11/02/23 14:31	1	0.00	11/02/23 14:31	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Fluoride	0.258	mg/L		11/13/23 10:51	1	0.250	11/13/23 10:51	TTH	SM 4500F C 1997
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/06/23 09:04	5	3.0	11/14/23 13:43	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:43	TJJ	EPA 6020A
Barium	84	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:43	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:43	TJJ	EPA 6020A
Boron	6000	ug/L		11/06/23 09:04	20	40	11/13/23 15:34	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:43	TJJ	EPA 6020A
Calcium	270	mg/L		11/06/23 09:04	5	0.20	11/14/23 13:43	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/06/23 09:04	5	4.0	11/14/23 13:43	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/06/23 09:04	5	2.0	11/14/23 13:43	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:43	TJJ	EPA 6020A
Magnesium	88	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:43	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/06/23 09:04	5	0.20	11/16/23 11:57	TJJ	EPA 6020A
Molybdenum	3.5	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:43	TJJ	EPA 6020A
Potassium	0.84	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:43	TJJ	EPA 6020A
Selenium	1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 17:03	KMC	EPA 6020A
Sodium	55	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:43	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:43	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00477-02

Sampled: 11/02/23 14:31

Name: AW-15S

Received: 11/02/23 16:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Lithium	< 20	ug/L		11/06/23 09:04	1	20	11/13/23 11:14	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00477-03

Sampled: 11/02/23 13:38

Name: AW-16

Received: 11/02/23 16:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	48	mg/L		11/08/23 23:50	10	10	11/08/23 23:50	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/08/23 23:32	1	0.250	11/08/23 23:32	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		11/08/23 23:32	1	1.0	11/08/23 23:32	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26	Feet		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Dissolved oxygen, Field	0.86	mg/L		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Oxidation Reduction Potential	-126	mV		11/02/23 13:38	1	-500	11/02/23 13:38	FIELD	Field*
pH, Field Measured	6.71	pH Units		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Specific Conductance, Field Measured	2180	umhos/cm		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Temperature, Field Measured	14.6	°C		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		11/02/23 13:38	1	0.00	11/02/23 13:38	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	1100	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/06/23 09:04	5	3.0	11/14/23 13:47	TJJ	EPA 6020A
Arsenic	1.2	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:47	TJJ	EPA 6020A
Barium	1100	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:47	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/13/23 15:37	TJJ	EPA 6020A
Boron	420	ug/L		11/06/23 09:04	5	10	11/13/23 15:37	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:47	TJJ	EPA 6020A
Calcium	150	mg/L		11/06/23 09:04	5	0.20	11/14/23 13:47	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/06/23 09:04	5	4.0	11/14/23 13:47	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/06/23 09:04	5	2.0	11/14/23 13:47	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:47	TJJ	EPA 6020A
Magnesium	63	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:47	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/06/23 09:04	5	0.20	11/14/23 13:47	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:47	TJJ	EPA 6020A
Potassium	4.7	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:47	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 17:18	KMC	EPA 6020A
Sodium	260	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:47	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:47	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00477-03

Sampled: 11/02/23 13:38

Name: AW-16

Received: 11/02/23 16:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Lithium	29	ug/L		11/06/23 09:04	1	20	11/13/23 11:15	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00477-04

Sampled: 11/02/23 13:10

Name: AW-21

Received: 11/02/23 16:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	97	mg/L		11/09/23 00:26	10	10	11/09/23 00:26	CRD	EPA 300.0 REV 2.1
Fluoride	0.399	mg/L		11/09/23 00:08	1	0.250	11/09/23 00:08	CRD	EPA 300.0 REV 2.1
Sulfate	260	mg/L		11/09/23 00:44	100	100	11/09/23 00:44	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	17.69	Feet		11/02/23 13:10	1		11/02/23 13:10	FIELD	Field*
Dissolved oxygen, Field	2.4	mg/L		11/02/23 13:10	1		11/02/23 13:10	FIELD	Field*
Oxidation Reduction Potential	46.0	mV		11/02/23 13:10	1	-500	11/02/23 13:10	FIELD	Field*
pH, Field Measured	7.16	pH Units		11/02/23 13:10	1		11/02/23 13:10	FIELD	Field*
Specific Conductance, Field Measured	1100	umhos/cm		11/02/23 13:10	1		11/02/23 13:10	FIELD	Field*
Temperature, Field Measured	15.4	°C		11/02/23 13:10	1		11/02/23 13:10	FIELD	Field*
Turbidity, Field Measured	20.0	NTU		11/02/23 13:10	1	0.00	11/02/23 13:10	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	160	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/06/23 09:04	5	3.0	11/14/23 13:51	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:51	TJJ	EPA 6020A
Barium	51	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:51	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:51	TJJ	EPA 6020A
Boron	12000	ug/L		11/06/23 09:04	20	40	11/13/23 15:51	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:51	TJJ	EPA 6020A
Calcium	120	mg/L		11/06/23 09:04	5	0.20	11/14/23 13:51	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/06/23 09:04	5	4.0	11/14/23 13:51	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/06/23 09:04	5	2.0	11/14/23 13:51	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:51	TJJ	EPA 6020A
Magnesium	39	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:51	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/06/23 09:04	5	0.20	11/14/23 13:51	TJJ	EPA 6020A
Molybdenum	28	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:51	TJJ	EPA 6020A
Potassium	1.6	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:51	TJJ	EPA 6020A
Selenium	3.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 17:22	KMC	EPA 6020A
Sodium	62	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:51	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:51	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00477-04

Sampled: 11/02/23 13:10

Name: AW-21

Received: 11/02/23 16:00

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Lithium	< 20	ug/L		11/06/23 09:04	1	20	11/13/23 11:17	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00477-06
Name: AW-16 FD
Matrix: Ground Water - Field Duplicate

Sampled: 11/02/23 13:38
Received: 11/02/23 16:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	48	mg/L		11/09/23 01:39	10	10	11/09/23 01:39	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/09/23 01:20	1	0.250	11/09/23 01:20	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		11/09/23 01:20	1	1.0	11/09/23 01:20	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26	Feet		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Dissolved oxygen, Field	0.86	mg/L		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Oxidation Reduction Potential	-126	mV		11/02/23 13:38	1	-500	11/02/23 13:38	FIELD	Field*
pH, Field Measured	6.71	pH Units		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Specific Conductance, Field Measured	2180	umhos/cm		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Temperature, Field Measured	14.6	°C		11/02/23 13:38	1		11/02/23 13:38	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		11/02/23 13:38	1	0.00	11/02/23 13:38	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	1100	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/06/23 09:04	5	3.0	11/14/23 13:59	TJJ	EPA 6020A
Arsenic	1.1	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:59	TJJ	EPA 6020A
Barium	1100	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:59	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/13/23 15:57	TJJ	EPA 6020A
Boron	420	ug/L		11/06/23 09:04	5	10	11/13/23 15:57	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:59	TJJ	EPA 6020A
Calcium	150	mg/L		11/06/23 09:04	5	0.20	11/14/23 13:59	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/06/23 09:04	5	4.0	11/14/23 13:59	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/06/23 09:04	5	2.0	11/14/23 13:59	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:59	TJJ	EPA 6020A
Magnesium	63	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:59	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/06/23 09:04	5	0.20	11/14/23 13:59	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:59	TJJ	EPA 6020A
Potassium	4.7	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:59	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 17:30	KMC	EPA 6020A
Sodium	260	mg/L		11/06/23 09:04	5	0.10	11/14/23 13:59	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 13:59	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00477-06

Sampled: 11/02/23 13:38

Name: AW-16 FD

Received: 11/02/23 16:00

Matrix: Ground Water - Field Duplicate

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Lithium	31	ug/L		11/06/23 09:04	1	20	11/13/23 11:19	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00654-01

Sampled: 11/03/23 13:20

Name: AP07S

Received: 11/03/23 15:03

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	73	mg/L	Q4	11/09/23 16:03	50	50	11/09/23 16:03	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/09/23 13:03	1	0.250	11/09/23 13:03	TMS	EPA 300.0 REV 2.1
Sulfate	180	mg/L	Q4	11/09/23 16:03	50	50	11/09/23 16:03	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.15	Feet		11/03/23 13:20	1		11/03/23 13:20	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		11/03/23 13:20	1		11/03/23 13:20	FIELD	Field*
Oxidation Reduction Potential	-56.0	mV		11/03/23 13:20	1	-500	11/03/23 13:20	FIELD	Field*
pH, Field Measured	7.50	pH Units		11/03/23 13:20	1		11/03/23 13:20	FIELD	Field*
Specific Conductance, Field Measured	1320	umhos/cm		11/03/23 13:20	1		11/03/23 13:20	FIELD	Field*
Temperature, Field Measured	16.2	°C		11/03/23 13:20	1		11/03/23 13:20	FIELD	Field*
Turbidity, Field Measured	2.90	NTU		11/03/23 13:20	1	0.00	11/03/23 13:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	310	mg/L		11/15/23 13:05	1	10	11/15/23 13:05	LAL2/CP S	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 13:05	1	10	11/15/23 13:05	LAL2/CP S	SM 2320B 1997*
Solids - total dissolved solids (TDS)	720	mg/L		11/08/23 14:24	1	26	11/08/23 15:45	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/06/23 09:04	5	3.0	11/14/23 14:33	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:33	TJJ	EPA 6020A
Barium	48	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:33	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:33	TJJ	EPA 6020A
Boron	8200	ug/L		11/06/23 09:04	20	40	11/13/23 16:05	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:33	TJJ	EPA 6020A
Calcium	130	mg/L		11/06/23 09:04	5	0.20	11/14/23 14:33	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/06/23 09:04	5	4.0	11/14/23 14:33	TJJ	EPA 6020A
Cobalt	2.6	ug/L		11/06/23 09:04	5	2.0	11/14/23 14:33	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:33	TJJ	EPA 6020A
Magnesium	49	mg/L		11/06/23 09:04	5	0.10	11/14/23 14:33	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/06/23 09:04	5	0.20	11/14/23 14:33	TJJ	EPA 6020A
Molybdenum	1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:33	TJJ	EPA 6020A
Potassium	0.48	mg/L		11/06/23 09:04	5	0.10	11/14/23 14:33	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 17:33	KMC	EPA 6020A
Sodium	63	mg/L		11/06/23 09:04	5	0.10	11/14/23 14:33	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00654-01

Sampled: 11/03/23 13:20

Name: AP07S

Received: 11/03/23 15:03

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:33	TJJ	EPA 6020A
Lithium	< 20	ug/L		11/06/23 09:04	1	20	11/13/23 11:23	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00654-02

Sampled: 11/03/23 14:10

Name: AW-11

Received: 11/03/23 15:03

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	33	mg/L		11/09/23 16:39	10	10	11/09/23 16:39	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/09/23 16:21	1	0.250	11/09/23 16:21	TMS	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		11/09/23 16:21	1	1.0	11/09/23 16:21	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	6.9	Feet		11/03/23 14:10	1		11/03/23 14:10	FIELD	Field*
Dissolved oxygen, Field	1.9	mg/L		11/03/23 14:10	1		11/03/23 14:10	FIELD	Field*
Oxidation Reduction Potential	-148	mV		11/03/23 14:10	1	-500	11/03/23 14:10	FIELD	Field*
pH, Field Measured	6.87	pH Units		11/03/23 14:10	1		11/03/23 14:10	FIELD	Field*
Specific Conductance, Field Measured	1850	umhos/cm		11/03/23 14:10	1		11/03/23 14:10	FIELD	Field*
Temperature, Field Measured	14.8	°C		11/03/23 14:10	1		11/03/23 14:10	FIELD	Field*
Turbidity, Field Measured	169	NTU		11/03/23 14:10	1	0.00	11/03/23 14:10	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	980	mg/L		11/15/23 13:05	1	10	11/15/23 13:05	LAL2/CP S	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 13:05	1	10	11/15/23 13:05	LAL2/CP S	SM 2320B 1997*
Solids - total dissolved solids (TDS)	870	mg/L		11/08/23 14:24	1	26	11/08/23 15:45	OGS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		11/06/23 09:04	5	3.0	11/14/23 14:37	TJJ	EPA 6020A
Arsenic	11	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:37	TJJ	EPA 6020A
Barium	840	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:37	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/13/23 16:08	TJJ	EPA 6020A
Boron	260	ug/L		11/06/23 09:04	5	10	11/13/23 16:08	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:37	TJJ	EPA 6020A
Calcium	160	mg/L		11/06/23 09:04	5	0.20	11/14/23 14:37	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/06/23 09:04	5	4.0	11/14/23 14:37	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/06/23 09:04	5	2.0	11/14/23 14:37	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:37	TJJ	EPA 6020A
Magnesium	72	mg/L		11/06/23 09:04	5	0.10	11/14/23 14:37	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/06/23 09:04	5	0.20	11/14/23 14:37	TJJ	EPA 6020A
Molybdenum	2.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:37	TJJ	EPA 6020A
Potassium	2.8	mg/L		11/06/23 09:04	5	0.10	11/14/23 14:37	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 17:37	KMC	EPA 6020A
Sodium	160	mg/L		11/06/23 09:04	5	0.10	11/14/23 14:37	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GK00654-02

Sampled: 11/03/23 14:10

Name: AW-11

Received: 11/03/23 15:03

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:37	TJJ	EPA 6020A
Lithium	< 20	ug/L		11/06/23 09:04	1	20	11/13/23 11:24	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00654-03

Sampled: 11/03/23 13:14

Name: AW-14

Received: 11/03/23 15:03

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	28	mg/L		11/09/23 17:52	5	5.0	11/09/23 17:52	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/09/23 17:34	1	0.250	11/09/23 17:34	TMS	EPA 300.0 REV 2.1
Sulfate	6.5	mg/L		11/09/23 17:34	1	1.0	11/09/23 17:34	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	7.82	Feet		11/03/23 13:14	1		11/03/23 13:14	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		11/03/23 13:14	1		11/03/23 13:14	FIELD	Field*
Oxidation Reduction Potential	-128	mV		11/03/23 13:14	1	-500	11/03/23 13:14	FIELD	Field*
pH, Field Measured	6.76	pH Units		11/03/23 13:14	1		11/03/23 13:14	FIELD	Field*
Specific Conductance, Field Measured	1840	umhos/cm		11/03/23 13:14	1		11/03/23 13:14	FIELD	Field*
Temperature, Field Measured	14.5	°C		11/03/23 13:14	1		11/03/23 13:14	FIELD	Field*
Turbidity, Field Measured	330	NTU		11/03/23 13:14	1	0.00	11/03/23 13:14	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	1000	mg/L		11/15/23 13:05	1	10	11/15/23 13:05	LAL2/CP S	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 13:05	1	10	11/15/23 13:05	LAL2/CP S	SM 2320B 1997*
Solids - total dissolved solids (TDS)	980	mg/L		11/08/23 14:24	1	26	11/08/23 15:45	OGS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		11/06/23 09:04	5	3.0	11/14/23 14:40	TJJ	EPA 6020A
Arsenic	4.1	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:40	TJJ	EPA 6020A
Barium	830	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:40	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:40	TJJ	EPA 6020A
Boron	240	ug/L		11/06/23 09:04	20	40	11/13/23 16:11	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:40	TJJ	EPA 6020A
Calcium	170	mg/L		11/06/23 09:04	5	0.20	11/14/23 14:40	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/06/23 09:04	5	4.0	11/14/23 14:40	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/06/23 09:04	5	2.0	11/14/23 14:40	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:40	TJJ	EPA 6020A
Magnesium	69	mg/L		11/06/23 09:04	5	0.10	11/14/23 14:40	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/06/23 09:04	5	0.20	11/14/23 14:40	TJJ	EPA 6020A
Molybdenum	1.8	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:40	TJJ	EPA 6020A
Potassium	3.1	mg/L		11/06/23 09:04	5	0.10	11/14/23 14:40	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 17:41	KMC	EPA 6020A
Sodium	150	mg/L		11/06/23 09:04	5	0.10	11/14/23 14:40	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GK00654-03

Sampled: 11/03/23 13:14

Name: AW-14

Received: 11/03/23 15:03

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/06/23 09:04	5	1.0	11/14/23 14:40	TJJ	EPA 6020A
Lithium	< 20	ug/L		11/06/23 09:04	1	20	11/13/23 11:25	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00898-01

Sampled: 11/06/23 11:00

Name: AP05S

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	46	mg/L	Q4	11/10/23 16:19	10	10	11/10/23 16:19	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/10/23 15:24	1	0.250	11/10/23 15:24	TMS	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L	Q3	11/10/23 15:24	1	1.0	11/10/23 15:24	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	6.3	Feet		11/06/23 11:00	1		11/06/23 11:00	FIELD	Field*
Dissolved oxygen, Field	1.5	mg/L		11/06/23 11:00	1		11/06/23 11:00	FIELD	Field*
Oxidation Reduction Potential	-127	mV		11/06/23 11:00	1	-500	11/06/23 11:00	FIELD	Field*
pH, Field Measured	6.80	pH Units		11/06/23 11:00	1		11/06/23 11:00	FIELD	Field*
Specific Conductance, Field Measured	1670	umhos/cm		11/06/23 11:00	1		11/06/23 11:00	FIELD	Field*
Temperature, Field Measured	15.6	°C		11/06/23 11:00	1		11/06/23 11:00	FIELD	Field*
Turbidity, Field Measured	531	NTU		11/06/23 11:00	1	0.00	11/06/23 11:00	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	800	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	960	mg/L		11/09/23 12:50	1	26	11/09/23 14:48	OGS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		11/09/23 07:19	5	3.0	11/14/23 16:55	TJJ	EPA 6020A
Arsenic	2.7	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:55	TJJ	EPA 6020A
Barium	1000	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:55	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/13/23 17:19	TJJ	EPA 6020A
Boron	330	ug/L		11/09/23 07:19	5	10	11/13/23 17:19	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:55	TJJ	EPA 6020A
Calcium	110	mg/L		11/09/23 07:19	5	0.20	11/14/23 16:55	TJJ	EPA 6020A
Chromium	6.7	ug/L		11/09/23 07:19	5	4.0	11/14/23 16:55	TJJ	EPA 6020A
Cobalt	4.2	ug/L		11/09/23 07:19	5	2.0	11/14/23 16:55	TJJ	EPA 6020A
Lead	3.8	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:55	TJJ	EPA 6020A
Magnesium	48	mg/L		11/09/23 07:19	5	0.10	11/16/23 14:43	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/09/23 07:19	5	0.20	11/16/23 14:43	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:55	TJJ	EPA 6020A
Potassium	4.3	mg/L		11/09/23 07:19	5	0.10	11/14/23 16:55	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 15:48	KMC	EPA 6020A
Sodium	180	mg/L		11/09/23 07:19	5	0.10	11/15/23 12:41	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GK00898-01

Sampled: 11/06/23 11:00

Name: AP05S

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:55	TJJ	EPA 6020A
Lithium	32	ug/L		11/09/23 07:19	1	20	11/13/23 11:31	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00898-03

Sampled: 11/06/23 14:40

Name: AW-01

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	10	mg/L		11/10/23 17:31	5	5.0	11/10/23 17:31	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/10/23 17:13	1	0.250	11/10/23 17:13	TMS	EPA 300.0 REV 2.1
Sulfate	50	mg/L		11/10/23 17:31	5	5.0	11/10/23 17:31	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.9	Feet		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Oxidation Reduction Potential	-83.0	mV		11/06/23 14:40	1	-500	11/06/23 14:40	FIELD	Field*
pH, Field Measured	6.76	pH Units		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Specific Conductance, Field Measured	1340	umhos/cm		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Temperature, Field Measured	17.9	°C		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Turbidity, Field Measured	304	NTU		11/06/23 14:40	1	0.00	11/06/23 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	700	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	770	mg/L		11/09/23 12:50	1	26	11/09/23 14:48	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/09/23 07:19	5	3.0	11/14/23 17:10	TJJ	EPA 6020A
Arsenic	12	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:10	TJJ	EPA 6020A
Barium	140	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:10	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/13/23 17:31	TJJ	EPA 6020A
Boron	86	ug/L		11/09/23 07:19	5	10	11/13/23 17:31	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:10	TJJ	EPA 6020A
Calcium	190	mg/L		11/09/23 07:19	5	0.20	11/14/23 17:10	TJJ	EPA 6020A
Chromium	4.1	ug/L		11/09/23 07:19	5	4.0	11/14/23 17:10	TJJ	EPA 6020A
Cobalt	6.0	ug/L		11/09/23 07:19	5	2.0	11/14/23 17:10	TJJ	EPA 6020A
Lead	2.2	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:10	TJJ	EPA 6020A
Magnesium	84	mg/L		11/09/23 07:19	5	0.10	11/16/23 14:54	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/09/23 07:19	5	0.20	11/16/23 14:54	TJJ	EPA 6020A
Molybdenum	3.4	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:10	TJJ	EPA 6020A
Potassium	0.77	mg/L		11/09/23 07:19	5	0.10	11/14/23 17:10	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:03	KMC	EPA 6020A
Sodium	18	mg/L		11/09/23 07:19	5	0.10	11/16/23 14:54	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00898-03

Sampled: 11/06/23 14:40

Name: AW-01

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:10	TJJ	EPA 6020A
Lithium	< 20	ug/L		11/09/23 07:19	1	20	11/13/23 11:38	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00898-04

Sampled: 11/06/23 15:47

Name: AW-05

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	81	mg/L		11/10/23 19:01	50	50	11/10/23 19:01	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/10/23 18:07	1	0.250	11/10/23 18:07	TMS	EPA 300.0 REV 2.1
Sulfate	5.7	mg/L		11/10/23 18:07	1	1.0	11/10/23 18:07	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	8.68	Feet		11/06/23 15:47	1		11/06/23 15:47	FIELD	Field*
Dissolved oxygen, Field	1.5	mg/L		11/06/23 15:47	1		11/06/23 15:47	FIELD	Field*
Oxidation Reduction Potential	-42.0	mV		11/06/23 15:47	1	-500	11/06/23 15:47	FIELD	Field*
pH, Field Measured	6.85	pH Units		11/06/23 15:47	1		11/06/23 15:47	FIELD	Field*
Specific Conductance, Field Measured	1730	umhos/cm		11/06/23 15:47	1		11/06/23 15:47	FIELD	Field*
Temperature, Field Measured	17.3	°C		11/06/23 15:47	1		11/06/23 15:47	FIELD	Field*
Turbidity, Field Measured	699	NTU		11/06/23 15:47	1	0.00	11/06/23 15:47	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	350	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1300	mg/L		11/09/23 12:50	1	26	11/09/23 14:48	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/09/23 07:19	5	3.0	11/14/23 17:14	TJJ	EPA 6020A
Arsenic	3.2	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:14	TJJ	EPA 6020A
Barium	110	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:14	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:14	TJJ	EPA 6020A
Boron	11000	ug/L		11/09/23 07:19	20	40	11/13/23 17:34	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:14	TJJ	EPA 6020A
Calcium	180	mg/L		11/09/23 07:19	5	0.20	11/14/23 17:14	TJJ	EPA 6020A
Chromium	4.2	ug/L		11/09/23 07:19	5	4.0	11/14/23 17:14	TJJ	EPA 6020A
Cobalt	3.3	ug/L		11/09/23 07:19	5	2.0	11/14/23 17:14	TJJ	EPA 6020A
Lead	1.8	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:14	TJJ	EPA 6020A
Magnesium	92	mg/L		11/09/23 07:19	5	0.10	11/16/23 14:58	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/09/23 07:19	5	0.20	11/16/23 14:58	TJJ	EPA 6020A
Molybdenum	2.2	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:14	TJJ	EPA 6020A
Potassium	1.3	mg/L		11/09/23 07:19	5	0.10	11/14/23 17:14	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:07	KMC	EPA 6020A
Sodium	91	mg/L		11/09/23 07:19	5	0.10	11/16/23 14:58	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00898-04

Sampled: 11/06/23 15:47

Name: AW-05

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:14	TJJ	EPA 6020A
Lithium	< 20	ug/L		11/09/23 07:19	1	20	11/13/23 11:39	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00898-05

Sampled: 11/06/23 12:50

Name: AW-06

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	37	mg/L		11/10/23 19:37	10	10	11/10/23 19:37	TMS	EPA 300.0 REV 2.1
Fluoride	0.282	mg/L		11/10/23 19:19	1	0.250	11/10/23 19:19	TMS	EPA 300.0 REV 2.1
Sulfate	23	mg/L		11/10/23 19:37	10	10	11/10/23 19:37	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	27.43	Feet		11/06/23 12:50	1		11/06/23 12:50	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		11/06/23 12:50	1		11/06/23 12:50	FIELD	Field*
Oxidation Reduction Potential	-91.0	mV		11/06/23 12:50	1	-500	11/06/23 12:50	FIELD	Field*
pH, Field Measured	7.41	pH Units		11/06/23 12:50	1		11/06/23 12:50	FIELD	Field*
Specific Conductance, Field Measured	1120	umhos/cm		11/06/23 12:50	1		11/06/23 12:50	FIELD	Field*
Temperature, Field Measured	16.1	°C		11/06/23 12:50	1		11/06/23 12:50	FIELD	Field*
Turbidity, Field Measured	609	NTU		11/06/23 12:50	1	0.00	11/06/23 12:50	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	480	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	570	mg/L		11/09/23 12:50	1	26	11/09/23 14:48	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/09/23 07:19	5	3.0	11/14/23 17:26	TJJ	EPA 6020A
Arsenic	4.4	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:26	TJJ	EPA 6020A
Barium	180	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:26	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/13/23 17:37	TJJ	EPA 6020A
Boron	150	ug/L		11/09/23 07:19	5	10	11/13/23 17:37	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:26	TJJ	EPA 6020A
Calcium	110	mg/L		11/09/23 07:19	5	0.20	11/14/23 17:26	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/09/23 07:19	5	4.0	11/14/23 17:26	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/09/23 07:19	5	2.0	11/14/23 17:26	TJJ	EPA 6020A
Lead	1.6	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:26	TJJ	EPA 6020A
Magnesium	49	mg/L		11/09/23 07:19	5	0.10	11/16/23 15:02	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/09/23 07:19	5	0.20	11/14/23 17:26	TJJ	EPA 6020A
Molybdenum	4.7	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:26	TJJ	EPA 6020A
Potassium	1.0	mg/L		11/09/23 07:19	5	0.10	11/14/23 17:26	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:11	KMC	EPA 6020A
Sodium	60	mg/L		11/09/23 07:19	5	0.10	11/16/23 15:02	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00898-05

Sampled: 11/06/23 12:50

Name: AW-06

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:26	TJJ	EPA 6020A
Lithium	< 20	ug/L		11/09/23 07:19	1	20	11/13/23 11:40	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00898-06

Sampled: 11/06/23 16:13

Name: AW-08

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	20	mg/L		11/10/23 20:14	5	5.0	11/10/23 20:14	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/10/23 19:56	1	0.250	11/10/23 19:56	TMS	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		11/10/23 19:56	1	1.0	11/10/23 19:56	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	25.43	Feet		11/06/23 16:13	1		11/06/23 16:13	FIELD	Field*
Dissolved oxygen, Field	0.070	mg/L		11/06/23 16:13	1		11/06/23 16:13	FIELD	Field*
Oxidation Reduction Potential	-150	mV		11/06/23 16:13	1	-500	11/06/23 16:13	FIELD	Field*
pH, Field Measured	7.32	pH Units		11/06/23 16:13	1		11/06/23 16:13	FIELD	Field*
Specific Conductance, Field Measured	1550	umhos/cm		11/06/23 16:13	1		11/06/23 16:13	FIELD	Field*
Temperature, Field Measured	18.6	°C		11/06/23 16:13	1		11/06/23 16:13	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		11/06/23 16:13	1	0.00	11/06/23 16:13	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	940	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	720	mg/L		11/09/23 12:50	1	26	11/09/23 14:48	OGS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 6.0	ug/L		11/09/23 07:19	10	6.0	11/14/23 17:30	TJJ	EPA 6020A
Arsenic	88	ug/L		11/09/23 07:19	50	10	11/16/23 15:06	TJJ	EPA 6020A
Barium	5800	ug/L		11/09/23 07:19	10	2.0	11/14/23 17:30	TJJ	EPA 6020A
Beryllium	24	ug/L		11/09/23 07:19	10	2.0	11/14/23 17:30	TJJ	EPA 6020A
Boron	350	ug/L		11/09/23 07:19	10	20	11/13/23 17:49	TJJ	EPA 6020A
Cadmium	15	ug/L		11/09/23 07:19	10	2.0	11/14/23 17:30	TJJ	EPA 6020A
Calcium	760	mg/L		11/09/23 07:19	10	0.40	11/14/23 17:30	TJJ	EPA 6020A
Chromium	680	ug/L		11/09/23 07:19	10	8.0	11/14/23 17:30	TJJ	EPA 6020A
Cobalt	400	ug/L		11/09/23 07:19	10	4.0	11/14/23 17:30	TJJ	EPA 6020A
Lead	420	ug/L		11/09/23 07:19	10	2.0	11/14/23 17:30	TJJ	EPA 6020A
Magnesium	450	mg/L		11/09/23 07:19	50	1.0	11/16/23 15:06	TJJ	EPA 6020A
Mercury	1.1	ug/L		11/09/23 07:19	10	0.40	11/14/23 17:30	TJJ	EPA 6020A
Molybdenum	14	ug/L		11/09/23 07:19	10	2.0	11/14/23 17:30	TJJ	EPA 6020A
Potassium	41	mg/L		11/09/23 07:19	10	0.20	11/14/23 17:30	TJJ	EPA 6020A
Selenium	15	ug/L		11/09/23 07:19	50	10	11/20/23 14:02	KMC	EPA 6020A
Sodium	93	mg/L		11/09/23 07:19	50	1.0	11/16/23 15:06	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00898-06

Sampled: 11/06/23 16:13

Name: AW-08

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	4.1	ug/L		11/09/23 07:19	10	2.0	11/14/23 17:30	TJJ	EPA 6020A
Lithium	660	ug/L		11/09/23 07:19	10	200	11/13/23 11:41	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00898-07

Sampled: 11/06/23 11:15

Name: AW-09

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	29	mg/L		11/10/23 20:50	5	5.0	11/10/23 20:50	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/10/23 20:32	1	0.250	11/10/23 20:32	TMS	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		11/10/23 20:32	1	1.0	11/10/23 20:32	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	27.17	Feet		11/06/23 11:15	1		11/06/23 11:15	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		11/06/23 11:15	1		11/06/23 11:15	FIELD	Field*
Oxidation Reduction Potential	-110	mV		11/06/23 11:15	1	-500	11/06/23 11:15	FIELD	Field*
pH, Field Measured	7.07	pH Units		11/06/23 11:15	1		11/06/23 11:15	FIELD	Field*
Specific Conductance, Field Measured	1480	umhos/cm		11/06/23 11:15	1		11/06/23 11:15	FIELD	Field*
Temperature, Field Measured	16.9	°C		11/06/23 11:15	1		11/06/23 11:15	FIELD	Field*
Turbidity, Field Measured	234	NTU		11/06/23 11:15	1	0.00	11/06/23 11:15	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	750	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	800	mg/L		11/09/23 12:50	1	26	11/09/23 14:48	OGS	SM 2540C
<u>Total Metals - PIA</u>									
Antimony	< 3.0	ug/L		11/09/23 07:19	5	3.0	11/14/23 17:34	TJJ	EPA 6020A
Arsenic	24	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:34	TJJ	EPA 6020A
Barium	430	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:34	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/13/23 17:52	TJJ	EPA 6020A
Boron	310	ug/L		11/09/23 07:19	5	10	11/13/23 17:52	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:34	TJJ	EPA 6020A
Calcium	120	mg/L		11/09/23 07:19	5	0.20	11/14/23 17:34	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/09/23 07:19	5	4.0	11/14/23 17:34	TJJ	EPA 6020A
Cobalt	3.1	ug/L		11/09/23 07:19	5	2.0	11/14/23 17:34	TJJ	EPA 6020A
Lead	1.2	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:34	TJJ	EPA 6020A
Magnesium	50	mg/L		11/09/23 07:19	5	0.10	11/16/23 15:10	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/09/23 07:19	5	0.20	11/14/23 17:34	TJJ	EPA 6020A
Molybdenum	21	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:34	TJJ	EPA 6020A
Potassium	2.3	mg/L		11/09/23 07:19	5	0.10	11/14/23 17:34	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:29	KMC	EPA 6020A
Sodium	140	mg/L		11/09/23 07:19	5	0.10	11/16/23 15:10	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GK00898-07

Sampled: 11/06/23 11:15

Name: AW-09

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:34	TJJ	EPA 6020A
Lithium	< 20	ug/L		11/09/23 07:19	1	20	11/13/23 11:43	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00898-08

Sampled: 11/06/23 14:40

Name: AW-10

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	84	mg/L		11/10/23 21:26	25	25	11/10/23 21:26	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/10/23 21:08	1	0.250	11/10/23 21:08	TMS	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		11/10/23 21:08	1	1.0	11/10/23 21:08	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	2.39	Feet		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Oxidation Reduction Potential	-125	mV		11/06/23 14:40	1	-500	11/06/23 14:40	FIELD	Field*
pH, Field Measured	7.31	pH Units		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Specific Conductance, Field Measured	2190	umhos/cm		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Temperature, Field Measured	17.8	°C		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Turbidity, Field Measured	520	NTU		11/06/23 14:40	1	0.00	11/06/23 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	980	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1100	mg/L		11/09/23 12:50	1	26	11/09/23 14:48	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/09/23 07:19	5	3.0	11/14/23 17:38	TJJ	EPA 6020A
Arsenic	12	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:38	TJJ	EPA 6020A
Barium	1000	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:38	TJJ	EPA 6020A
Beryllium	1.3	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:38	TJJ	EPA 6020A
Boron	470	ug/L		11/09/23 07:19	5	10	11/13/23 17:55	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:38	TJJ	EPA 6020A
Calcium	140	mg/L		11/09/23 07:19	5	0.20	11/14/23 17:38	TJJ	EPA 6020A
Chromium	29	ug/L		11/09/23 07:19	5	4.0	11/14/23 17:38	TJJ	EPA 6020A
Cobalt	18	ug/L		11/09/23 07:19	5	2.0	11/14/23 17:38	TJJ	EPA 6020A
Lead	18	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:38	TJJ	EPA 6020A
Magnesium	74	mg/L		11/09/23 07:19	5	0.10	11/16/23 15:14	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/09/23 07:19	5	0.20	11/14/23 17:38	TJJ	EPA 6020A
Molybdenum	1.9	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:38	TJJ	EPA 6020A
Potassium	5.2	mg/L		11/09/23 07:19	5	0.10	11/14/23 17:38	TJJ	EPA 6020A
Selenium	1.1	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:33	KMC	EPA 6020A
Sodium	260	mg/L		11/09/23 07:19	5	0.10	11/16/23 15:14	TJJ	EPA 6020A



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00898-08

Sampled: 11/06/23 14:40

Name: AW-10

Received: 11/06/23 17:10

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:38	TJJ	EPA 6020A
Lithium	58	ug/L		11/09/23 07:19	1	20	11/13/23 11:44	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GK00898-09
Name: AW-01 DUP
Matrix: Ground Water - Field Duplicate

Sampled: 11/06/23 14:40
Received: 11/06/23 17:10

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	9.8	mg/L		11/10/23 22:38	5	5.0	11/10/23 22:38	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/10/23 21:44	1	0.250	11/10/23 21:44	TMS	EPA 300.0 REV 2.1
Sulfate	48	mg/L		11/10/23 22:38	5	5.0	11/10/23 22:38	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.9	Feet		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Oxidation Reduction Potential	-83.0	mV		11/06/23 14:40	1	-500	11/06/23 14:40	FIELD	Field*
pH, Field Measured	6.76	pH Units		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Specific Conductance, Field Measured	1340	umhos/cm		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Temperature, Field Measured	17.9	°C		11/06/23 14:40	1		11/06/23 14:40	FIELD	Field*
Turbidity, Field Measured	304	NTU		11/06/23 14:40	1	0.00	11/06/23 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	700	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/15/23 17:00	1	10	11/16/23 12:07	CPS	SM 2320B 1997*
Solids - total dissolved solids (TDS)	790	mg/L		11/09/23 12:50	1	26	11/09/23 14:48	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/09/23 07:19	5	3.0	11/14/23 17:41	TJJ	EPA 6020A
Arsenic	12	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:41	TJJ	EPA 6020A
Barium	140	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:41	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/13/23 17:58	TJJ	EPA 6020A
Boron	81	ug/L		11/09/23 07:19	5	10	11/13/23 17:58	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:41	TJJ	EPA 6020A
Calcium	190	mg/L		11/09/23 07:19	5	0.20	11/14/23 17:41	TJJ	EPA 6020A
Chromium	5.2	ug/L		11/09/23 07:19	5	4.0	11/14/23 17:41	TJJ	EPA 6020A
Cobalt	6.0	ug/L		11/09/23 07:19	5	2.0	11/14/23 17:41	TJJ	EPA 6020A
Lead	2.3	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:41	TJJ	EPA 6020A
Magnesium	83	mg/L		11/09/23 07:19	5	0.10	11/16/23 15:18	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/09/23 07:19	5	0.20	11/14/23 17:41	TJJ	EPA 6020A
Molybdenum	3.4	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:41	TJJ	EPA 6020A
Potassium	0.92	mg/L		11/09/23 07:19	5	0.10	11/14/23 17:41	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 16:37	KMC	EPA 6020A
Sodium	18	mg/L		11/09/23 07:19	5	0.10	11/16/23 15:18	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GK00898-09

Name: AW-01 DUP

Matrix: Ground Water - Field Duplicate

Sampled: 11/06/23 14:40

Received: 11/06/23 17:10

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		11/09/23 07:19	5	1.0	11/14/23 17:41	TJJ	EPA 6020A
Lithium	< 20	ug/L		11/09/23 07:19	1	20	11/13/23 11:45	BRS	EPA 6010B

Sample: GK00898-11

Name: SG-01

Matrix: Ground Water

Sampled: 10/27/23 15:46

Received: 11/06/23 17:10

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	431	Feet		10/27/23 15:46	1		10/27/23 15:46	DAB	Field*

Sample: GK00898-14

Name: XPWO1A

Matrix: Ground Water

Sampled: 10/27/23 13:46

Received: 11/06/23 17:10

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	11.89	Feet		10/27/23 13:46	1		10/27/23 13:46	DAB	Field*

Sample: GK00898-15

Name: XPWO2

Matrix: Ground Water

Sampled: 10/27/23 13:40

Received: 11/06/23 17:10

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	21.63	Feet		10/27/23 13:40	1		10/27/23 13:40	DAB	Field*

Sample: GK00898-16

Name: XPWO3

Matrix: Ground Water

Sampled: 10/27/23 13:35

Received: 11/06/23 17:10

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	18.23	Feet		10/27/23 13:35	1		10/27/23 13:35	DAB	Field*



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800) 752-6651

ANALYTICAL RESULTS

Sample: GK03315-01 **Sampled:** 11/17/23 11:13
Name: AW-15 **Received:** 11/17/23 12:12
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	1000	mg/L		11/17/23 15:35	1	26	11/17/23 16:23	OGS	SM 2540C

Sample: GK03315-02 **Sampled:** 11/17/23 11:37
Name: AW-15S **Received:** 11/17/23 12:12
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	1200	mg/L		11/17/23 15:35	1	26	11/17/23 16:23	OGS	SM 2540C

Sample: GK03315-03 **Sampled:** 11/17/23 10:43
Name: AW-16 **Received:** 11/17/23 12:12
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	1100	mg/L	M	11/17/23 15:35	1	26	11/17/23 16:23	OGS	SM 2540C

Sample: GK03315-04 **Sampled:** 11/17/23 10:43
Name: AW-16 FD **Received:** 11/17/23 12:12
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	1100	mg/L		11/17/23 15:35	1	26	11/17/23 16:23	OGS	SM 2540C



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK03315-05

Sampled: 11/17/23 10:03

Name: AW-21

Received: 11/17/23 12:12

Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	690	mg/L		11/17/23 15:35	1	26	11/17/23 16:23	OGS	SM 2540C



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B348049 - SW 3015 - EPA 6010B</u>									
Blank (B348049-BLK1)					Prepared: 11/02/23	Analyzed: 11/06/23			
Lithium	< 20	ug/L							
LCS (B348049-BS1)					Prepared: 11/02/23	Analyzed: 11/06/23			
Lithium	523	ug/L		555.6		94	80-120		
Matrix Spike (B348049-MS1)	Sample: GJ04997-11				Prepared: 11/02/23	Analyzed: 11/06/23			
Lithium	542	ug/L		555.6	23.3	93	75-125		
Matrix Spike Dup (B348049-MSD1)	Sample: GJ04997-11				Prepared: 11/02/23	Analyzed: 11/06/23			
Lithium	565	ug/L		555.6	23.3	98	75-125	4	20
<u>Batch B348049 - SW 3015 - EPA 6020A</u>									
Blank (B348049-BLK1)					Prepared: 11/02/23	Analyzed: 11/09/23			
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
Blank (B348049-BLK2)					Prepared: 11/02/23	Analyzed: 11/14/23			
Selenium	< 1.0	ug/L							
LCS (B348049-BS1)					Prepared: 11/02/23	Analyzed: 11/09/23			
Antimony	563	ug/L		555.6		101	80-120		
Arsenic	552	ug/L		555.6		99	80-120		
Barium	540	ug/L		555.6		97	80-120		
Beryllium	534	ug/L		555.6		96	80-120		
Boron	500	ug/L		555.6		90	80-120		
Cadmium	532	ug/L		555.6		96	80-120		
Calcium	5.60	mg/L		5.556		101	80-120		
Chromium	548	ug/L		555.6		99	80-120		
Cobalt	544	ug/L		555.6		98	80-120		
Lead	539	ug/L		555.6		97	80-120		
Magnesium	5.60	mg/L		5.556		101	80-120		
Mercury	52.1	ug/L		55.56		94	80-120		
Molybdenum	530	ug/L		555.6		95	80-120		
Potassium	5.47	mg/L		5.556		99	80-120		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit				
LCS (B348049-BS1)					Prepared: 11/02/23 Analyzed: 11/10/23								
Selenium	582	ug/L		555.6		105	80-120						
Sodium	5.59	mg/L		5.556		101	80-120						
Thallium	536	ug/L		555.6		97	80-120						
LCS (B348049-BS4)					Prepared: 11/02/23 Analyzed: 11/14/23								
Selenium	587	ug/L		555.6		106	80-120						
Matrix Spike (B348049-MS1)	Sample: GJ04997-11				Prepared: 11/02/23 Analyzed: 11/09/23								
Antimony	438	ug/L		555.6	0.594	79	75-125						
Arsenic	522	ug/L		555.6	28.5	89	75-125						
Barium	727	ug/L		555.6	219	92	75-125						
Beryllium	514	ug/L		555.6	1.36	92	75-125						
Boron	5440	ug/L		555.6	4970	85	75-125						
Cadmium	529	ug/L		555.6	ND	95	75-125						
Calcium	233	mg/L	Q4	5.556	229	70	75-125						
Chromium	570	ug/L		555.6	36.7	96	75-125						
Cobalt	542	ug/L		555.6	24.4	93	75-125						
Lead	563	ug/L		555.6	33.7	95	75-125						
Magnesium	93.0	mg/L	Q4	5.556	89.6	60	75-125						
Mercury	52.0	ug/L		55.56	0.156	93	75-125						
Molybdenum	538	ug/L		555.6	9.36	95	75-125						
Potassium	9.46	mg/L		5.556	4.16	95	75-125						
Selenium	491	ug/L		555.6	3.09	88	75-125						
Sodium	104	mg/L	Q4	5.556	101	58	75-125						
Thallium	521	ug/L		555.6	0.422	94	75-125						
Matrix Spike Dup (B348049-MSD1)	Sample: GJ04997-11				Prepared: 11/02/23 Analyzed: 11/09/23								
Antimony	413	ug/L	Q2	555.6	0.594	74	75-125	6	20				
Arsenic	521	ug/L		555.6	28.5	89	75-125	0.3	20				
Barium	737	ug/L		555.6	219	93	75-125	1	20				
Beryllium	501	ug/L		555.6	1.36	90	75-125	3	20				
Boron	5330	ug/L	Q4	555.6	4970	66	75-125	2	20				
Cadmium	533	ug/L		555.6	ND	96	75-125	0.8	20				
Calcium	235	mg/L		5.556	229	108	75-125	0.9	20				
Chromium	574	ug/L		555.6	36.7	97	75-125	0.6	20				
Cobalt	540	ug/L		555.6	24.4	93	75-125	0.3	20				
Lead	557	ug/L		555.6	33.7	94	75-125	1	20				
Magnesium	93.8	mg/L		5.556	89.6	76	75-125	0.9	20				
Mercury	53.8	ug/L		55.56	0.156	96	75-125	3	20				
Molybdenum	543	ug/L		555.6	9.36	96	75-125	1	20				
Potassium	9.90	mg/L		5.556	4.16	103	75-125	5	20				
Selenium	482	ug/L		555.6	3.09	86	75-125	2	20				
Sodium	104	mg/L	Q4	5.556	101	58	75-125	0.002	20				
Thallium	521	ug/L		555.6	0.422	94	75-125	0.05	20				
<u>Batch B348082 - No Prep - SM 2540C</u>													
Blank (B348082-BLK1)					Prepared & Analyzed: 11/02/23								
Solids - total dissolved solids (TDS)	< 17	mg/L											
LCS (B348082-BS1)					Prepared & Analyzed: 11/02/23								
Solids - total dissolved solids (TDS)	973	mg/L		1000		97	84.9-109						



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B348082-DUP1)	Sample: GK00258-01				Prepared & Analyzed: 11/02/23				
Solids - total dissolved solids (TDS)	1010	mg/L			1040			2	5
Duplicate (B348082-DUP2)	Sample: GK00258-02				Prepared & Analyzed: 11/02/23				
Solids - total dissolved solids (TDS)	955	mg/L	M		795			18	5
<u>Batch B348302 - SW 3015 - EPA 6010B</u>									
Blank (B348302-BLK1)					Prepared: 11/06/23	Analyzed: 11/13/23			
Lithium	< 20	ug/L							
LCS (B348302-BS1)					Prepared: 11/06/23	Analyzed: 11/13/23			
Lithium	550	ug/L		555.6	99	80-120			
Matrix Spike (B348302-MS1)	Sample: GK00477-01				Prepared: 11/06/23	Analyzed: 11/13/23			
Lithium	561	ug/L		555.6	28.7	96	75-125		
Matrix Spike Dup (B348302-MSD1)	Sample: GK00477-01				Prepared: 11/06/23	Analyzed: 11/13/23			
Lithium	563	ug/L		555.6	28.7	96	75-125	0.5	20
<u>Batch B348302 - SW 3015 - EPA 6020A</u>									
Blank (B348302-BLK1)					Prepared: 11/06/23	Analyzed: 11/14/23			
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B348302-BS1)					Prepared: 11/06/23	Analyzed: 11/14/23			
Antimony	547	ug/L		555.6	98	80-120			
Arsenic	559	ug/L		555.6	101	80-120			
Barium	526	ug/L		555.6	95	80-120			
Beryllium	586	ug/L		555.6	105	80-120			
Boron	543	ug/L		555.6	98	80-120			
Cadmium	555	ug/L		555.6	100	80-120			
Calcium	5.83	mg/L		5.556	105	80-120			
Chromium	584	ug/L		555.6	105	80-120			
Cobalt	597	ug/L		555.6	108	80-120			
Lead	577	ug/L		555.6	104	80-120			
Magnesium	6.23	mg/L		5.556	112	80-120			
Mercury	53.6	ug/L		55.56	97	80-120			
Molybdenum	544	ug/L		555.6	98	80-120			



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit			
LCS (B348302-BS1)					Prepared: 11/06/23 Analyzed: 11/14/23							
Potassium	6.12	mg/L		5.556		110	80-120					
Selenium	555	ug/L		555.6		100	80-120					
Sodium	6.25	mg/L		5.556		113	80-120					
Thallium	569	ug/L		555.6		102	80-120					
Matrix Spike (B348302-MS1)	Sample: GK00477-01				Prepared: 11/06/23 Analyzed: 11/14/23							
Antimony	539	ug/L		555.6	ND	97	75-125					
Arsenic	565	ug/L		555.6	1.84	101	75-125					
Barium	2390	ug/L		555.6	1850	96	75-125					
Beryllium	585	ug/L		555.6	ND	105	75-125					
Boron	915	ug/L		555.6	396	93	75-125					
Cadmium	565	ug/L		555.6	ND	102	75-125					
Calcium	146	mg/L	Q4	5.556	142	71	75-125					
Chromium	589	ug/L		555.6	ND	106	75-125					
Cobalt	604	ug/L		555.6	1.67	108	75-125					
Lead	567	ug/L		555.6	ND	102	75-125					
Magnesium	64.0	mg/L		5.556	59.1	89	75-125					
Mercury	56.4	ug/L		55.56	0.150	101	75-125					
Molybdenum	571	ug/L		555.6	ND	103	75-125					
Potassium	10.4	mg/L		5.556	4.45	107	75-125					
Selenium	564	ug/L		555.6	0.356	101	75-125					
Sodium	222	mg/L	Q4	5.556	221	15	75-125					
Thallium	557	ug/L		555.6	ND	100	75-125					
Matrix Spike Dup (B348302-MSD1)	Sample: GK00477-01				Prepared: 11/06/23 Analyzed: 11/14/23							
Antimony	541	ug/L		555.6	ND	97	75-125	0.4	20			
Arsenic	563	ug/L		555.6	1.84	101	75-125	0.3	20			
Barium	2400	ug/L		555.6	1850	99	75-125	0.6	20			
Beryllium	589	ug/L		555.6	ND	106	75-125	0.8	20			
Boron	928	ug/L		555.6	396	96	75-125	1	20			
Cadmium	560	ug/L		555.6	ND	101	75-125	1	20			
Calcium	147	mg/L		5.556	142	83	75-125	0.5	20			
Chromium	580	ug/L		555.6	ND	104	75-125	2	20			
Cobalt	598	ug/L		555.6	1.67	107	75-125	1	20			
Lead	564	ug/L		555.6	ND	101	75-125	0.7	20			
Magnesium	63.7	mg/L		5.556	59.1	83	75-125	0.5	20			
Mercury	54.7	ug/L		55.56	0.150	98	75-125	3	20			
Molybdenum	561	ug/L		555.6	ND	101	75-125	2	20			
Potassium	10.4	mg/L		5.556	4.45	106	75-125	0.5	20			
Selenium	561	ug/L		555.6	0.356	101	75-125	0.7	20			
Sodium	222	mg/L	Q4	5.556	221	23	75-125	0.2	20			
Thallium	551	ug/L		555.6	ND	99	75-125	1	20			
Batch B348625 - No Prep - SM 2540C												
Blank (B348625-BLK1)					Prepared & Analyzed: 11/08/23							
Solids - total dissolved solids (TDS)	< 17	mg/L										
LCS (B348625-BS1)					Prepared & Analyzed: 11/08/23							
Solids - total dissolved solids (TDS)	940	mg/L		1000		94	84.9-109					
Duplicate (B348625-DUP1)	Sample: GK00676-16				Prepared & Analyzed: 11/08/23							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B348625-DUP1)	Sample: GK00676-16				Prepared & Analyzed: 11/08/23				
Solids - total dissolved solids (TDS)	980	mg/L			985			0.5	5
Duplicate (B348625-DUP2)	Sample: GK00696-01				Prepared & Analyzed: 11/08/23				
Solids - total dissolved solids (TDS)	5050	mg/L			5090			0.8	5
<u>Batch B348662 - SW 3015 - EPA 6010B</u>									
Blank (B348662-BLK1)					Prepared: 11/09/23	Analyzed: 11/13/23			
Lithium	< 20	ug/L							
LCS (B348662-BS1)					Prepared: 11/09/23	Analyzed: 11/13/23			
Lithium	573	ug/L		555.6	103	80-120			
Matrix Spike (B348662-MS1)	Sample: GK00898-01				Prepared: 11/09/23	Analyzed: 11/13/23			
Lithium	563	ug/L		555.6	31.7	96	75-125		
Matrix Spike Dup (B348662-MSD1)	Sample: GK00898-01				Prepared: 11/09/23	Analyzed: 11/13/23			
Lithium	580	ug/L		555.6	31.7	99	75-125	3	20
<u>Batch B348662 - SW 3015 - EPA 6020A</u>									
Blank (B348662-BLK1)					Prepared: 11/09/23	Analyzed: 11/14/23			
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B348662-BS1)					Prepared: 11/09/23	Analyzed: 11/14/23			
Antimony	545	ug/L		555.6	98	80-120			
Arsenic	552	ug/L		555.6	99	80-120			
Barium	516	ug/L		555.6	93	80-120			
Beryllium	585	ug/L		555.6	105	80-120			
Boron	547	ug/L		555.6	99	80-120			
Cadmium	562	ug/L		555.6	101	80-120			
Calcium	6.38	mg/L		5.556	115	80-120			
Chromium	594	ug/L		555.6	107	80-120			
Cobalt	612	ug/L		555.6	110	80-120			
Lead	580	ug/L		555.6	104	80-120			
Magnesium	5.91	mg/L		5.556	106	80-120			
Mercury	51.2	ug/L		55.56	92	80-120			
Molybdenum	554	ug/L		555.6	100	80-120			



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit			
LCS (B348662-BS1)					Prepared: 11/09/23 Analyzed: 11/14/23							
Potassium	6.17	mg/L		5.556	111	80-120						
Selenium	581	ug/L		555.6	105	80-120						
Sodium	5.93	mg/L		5.556	107	80-120						
Thallium	567	ug/L		555.6	102	80-120						
Matrix Spike (B348662-MS1)	Sample: GK00898-01				Prepared: 11/09/23 Analyzed: 11/14/23							
Antimony	510	ug/L		555.6	ND	92	75-125					
Arsenic	538	ug/L		555.6	2.67	96	75-125					
Barium	1600	ug/L		555.6	1040	100	75-125					
Beryllium	571	ug/L		555.6	ND	103	75-125					
Boron	869	ug/L		555.6	331	97	75-125					
Cadmium	554	ug/L		555.6	ND	100	75-125					
Calcium	114	mg/L		5.556	108	109	75-125					
Chromium	588	ug/L		555.6	6.66	105	75-125					
Cobalt	599	ug/L		555.6	4.17	107	75-125					
Lead	571	ug/L		555.6	3.84	102	75-125					
Magnesium	54.8	mg/L	Q4	5.556	48.4	115	75-125					
Mercury	54.1	ug/L		55.56	0.178	97	75-125					
Molybdenum	554	ug/L		555.6	0.817	100	75-125					
Potassium	10.3	mg/L		5.556	4.35	107	75-125					
Selenium	550	ug/L		555.6	0.472	99	75-125					
Thallium	552	ug/L		555.6	ND	99	75-125					
Matrix Spike Dup (B348662-MSD1)	Sample: GK00898-01				Prepared: 11/09/23 Analyzed: 11/14/23							
Antimony	512	ug/L		555.6	ND	92	75-125	0.3	20			
Arsenic	541	ug/L		555.6	2.67	97	75-125	0.6	20			
Barium	1590	ug/L		555.6	1040	98	75-125	0.7	20			
Beryllium	586	ug/L		555.6	ND	106	75-125	3	20			
Boron	876	ug/L		555.6	331	98	75-125	0.8	20			
Cadmium	558	ug/L		555.6	ND	100	75-125	0.8	20			
Calcium	112	mg/L		5.556	108	83	75-125	1	20			
Chromium	587	ug/L		555.6	6.66	104	75-125	0.1	20			
Cobalt	604	ug/L		555.6	4.17	108	75-125	0.7	20			
Lead	570	ug/L		555.6	3.84	102	75-125	0.2	20			
Magnesium	54.5	mg/L	Q4	5.556	48.4	110	75-125	0.5	20			
Mercury	54.5	ug/L		55.56	0.178	98	75-125	0.6	20			
Molybdenum	558	ug/L		555.6	0.817	100	75-125	0.8	20			
Potassium	10.3	mg/L		5.556	4.35	106	75-125	0.6	20			
Selenium	551	ug/L		555.6	0.472	99	75-125	0.3	20			
Thallium	551	ug/L		555.6	ND	99	75-125	0.2	20			
<u>Batch B348706 - IC No Prep - EPA 300.0 REV 2.1</u>												
Calibration Blank (B348706-CCB1)					Prepared & Analyzed: 11/08/23							
Fluoride	0.00	mg/L										
Chloride	0.00	mg/L										
Sulfate	0.00	mg/L										
Calibration Check (B348706-CCV1)					Prepared & Analyzed: 11/08/23							
Chloride	5.01	mg/L		5.000	100	90-110						
Fluoride	5.22	mg/L		5.000	104	90-110						



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Check (B348706-CCV1)	Prepared & Analyzed: 11/08/23								
Sulfate	4.98	mg/L		5.000	100		90-110		
Matrix Spike (B348706-MS1)	Sample: GK00477-01 Prepared & Analyzed: 11/09/23								
Chloride	< 1.0	mg/L	Q4	1.500	34	NR	80-120		
Sulfate	1.62	mg/L		1.500	0.208	94	80-120		
Fluoride	1.34	mg/L		1.500	ND	89	80-120		
Matrix Spike Dup (B348706-MSD1)	Sample: GK00477-01 Prepared & Analyzed: 11/09/23								
Chloride	1.0E9	mg/L	Q4	1.500	34	NR	80-120		20
Sulfate	1.72	mg/L		1.500	0.208	101	80-120	6	20
Fluoride	1.53	mg/L		1.500	ND	102	80-120	13	20
<u>Batch B348707 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B348707-CCB1)	Prepared & Analyzed: 11/08/23								
Sulfate	0.00	mg/L							
Fluoride	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B348707-CCV1)	Prepared & Analyzed: 11/08/23								
Sulfate	4.95	mg/L		5.000	99		90-110		
Chloride	5.05	mg/L		5.000	101		90-110		
Fluoride	5.20	mg/L		5.000	104		90-110		
Matrix Spike (B348707-MS1)	Sample: GK00258-01 Prepared & Analyzed: 11/08/23								
Chloride	< 1.0	mg/L	Q4	1.500	53	NR	80-120		
Sulfate	1.50	mg/L		1.500	ND	100	80-120		
Fluoride	1.24	mg/L	Q1	1.500	0.0458	80	80-120		
Matrix Spike Dup (B348707-MSD1)	Sample: GK00258-01 Prepared & Analyzed: 11/08/23								
Fluoride	1.21	mg/L	Q2	1.500	0.0458	77	80-120	3	20
Sulfate	1.36	mg/L		1.500	ND	91	80-120	10	20
Chloride	< 1.0	mg/L	Q4	1.500	53	NR	80-120		
<u>Batch B348728 - No Prep - SM 2540C</u>									
Blank (B348728-BLK1)	Prepared & Analyzed: 11/09/23								
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B348728-BS1)	Prepared & Analyzed: 11/09/23								
Solids - total dissolved solids (TDS)	953	mg/L		1000	95		84.9-109		
Duplicate (B348728-DUP1)	Sample: GK00898-02 Prepared & Analyzed: 11/09/23								
Solids - total dissolved solids (TDS)	945	mg/L		975				3	5
Duplicate (B348728-DUP2)	Sample: GK00898-06 Prepared & Analyzed: 11/09/23								
Solids - total dissolved solids (TDS)	695	mg/L		725				4	5
<u>Batch B348876 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B348876-CCB1)	Prepared & Analyzed: 11/09/23								
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Fluoride	0.00	mg/L							
Calibration Check (B348876-CCV1)	Prepared & Analyzed: 11/09/23								
Fluoride	4.92	mg/L		5.000	98		90-110		
Chloride	4.84	mg/L		5.000	97		90-110		
Sulfate	4.85	mg/L		5.000	97		90-110		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B348876-MS1)	Sample: GK00654-01			Prepared & Analyzed: 11/09/23					
Fluoride	1.63	mg/L		1.500	0.229	93	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	184	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	73	NR	80-120		
Matrix Spike (B348876-MS2)	Sample: GK01692-01			Prepared & Analyzed: 11/09/23					
Sulfate	1.00E9	mg/L	Q4	1.500	316	NR	80-120		
Matrix Spike Dup (B348876-MSD1)	Sample: GK00654-01			Prepared & Analyzed: 11/09/23					
Fluoride	1.64	mg/L		1.500	0.229	94	80-120	1	20
Chloride	1.0E9	mg/L	Q4	1.500	73	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	184	NR	80-120	0	20
Matrix Spike Dup (B348876-MSD2)	Sample: GK01692-01			Prepared & Analyzed: 11/09/23					
Sulfate	1.00E9	mg/L	Q4	1.500	316	NR	80-120	0	20
<u>Batch B348981 - No Prep - SM 4500F C 1997</u>									
Calibration Blank (B348981-CCB1)	Prepared & Analyzed: 11/13/23								
Fluoride	0.00300	mg/L							
Calibration Blank (B348981-CCB2)	Prepared & Analyzed: 11/13/23								
Fluoride	0.0170	mg/L							
Calibration Check (B348981-CCV1)	Prepared & Analyzed: 11/13/23								
Fluoride	0.678	mg/L		0.7000		97	90-110		
Calibration Check (B348981-CCV2)	Prepared & Analyzed: 11/13/23								
Fluoride	0.743	mg/L		0.7000		106	90-110		
Matrix Spike (B348981-MS1)	Sample: GK00477-02			Prepared & Analyzed: 11/13/23					
Fluoride	1.30	mg/L		1.000	0.258	104	80-120		
Matrix Spike (B348981-MS2)	Sample: GK00851-01			Prepared & Analyzed: 11/13/23					
Fluoride	1.72	mg/L		1.000	0.665	106	80-120		
Matrix Spike (B348981-MS3)	Sample: GK01076-01			Prepared & Analyzed: 11/13/23					
Fluoride	1.79	mg/L		1.000	0.718	108	80-120		
Matrix Spike (B348981-MS4)	Sample: GK01082-01			Prepared & Analyzed: 11/13/23					
Fluoride	1.72	mg/L		1.000	0.669	105	80-120		
Matrix Spike (B348981-MS5)	Sample: GK01233-01			Prepared & Analyzed: 11/13/23					
Fluoride	1.57	mg/L		1.000	0.566	100	80-120		
Matrix Spike (B348981-MS6)	Sample: GK01247-01			Prepared & Analyzed: 11/13/23					
Fluoride	1.79	mg/L		1.000	0.225	157	80-120		
Matrix Spike (B348981-MS7)	Sample: GK01316-01			Prepared & Analyzed: 11/13/23					
Fluoride	1.84	mg/L		1.000	0.643	120	80-120		
Matrix Spike (B348981-MS8)	Sample: GK01354-03			Prepared & Analyzed: 11/13/23					
Fluoride	1.77	mg/L		1.000	0.636	113	80-120		
Matrix Spike (B348981-MS9)	Sample: GK01247-06			Prepared & Analyzed: 11/13/23					
Fluoride	1.21	mg/L		1.000	0.135	108	80-120		
Matrix Spike (B348981-MSA)	Sample: GK01393-01			Prepared & Analyzed: 11/13/23					
Fluoride	1.66	mg/L		1.000	0.662	100	80-120		
Matrix Spike Dup (B348981-MSD1)	Sample: GK00477-02			Prepared & Analyzed: 11/13/23					
Fluoride	1.31	mg/L		1.000	0.258	105	80-120	0.6	20
Matrix Spike Dup (B348981-MSD2)	Sample: GK00851-01			Prepared & Analyzed: 11/13/23					
Fluoride	1.70	mg/L		1.000	0.665	104	80-120	1	20
Matrix Spike Dup (B348981-MSD3)	Sample: GK01076-01			Prepared & Analyzed: 11/13/23					
Fluoride	1.80	mg/L		1.000	0.718	108	80-120	0.4	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B348981-MSD4)	Sample: GK01082-01				Prepared & Analyzed: 11/13/23				
Fluoride	1.74	mg/L		1.000	0.669	107	80-120	1	20
Matrix Spike Dup (B348981-MSD5)	Sample: GK01233-01				Prepared & Analyzed: 11/13/23				
Fluoride	1.64	mg/L		1.000	0.566	108	80-120	5	20
Matrix Spike Dup (B348981-MSD6)	Sample: GK01247-01				Prepared & Analyzed: 11/13/23				
Fluoride	1.76	mg/L		1.000	0.225	154	80-120	1	20
Matrix Spike Dup (B348981-MSD7)	Sample: GK01316-01				Prepared & Analyzed: 11/13/23				
Fluoride	1.73	mg/L		1.000	0.643	108	80-120	7	20
Matrix Spike Dup (B348981-MSD8)	Sample: GK01354-03				Prepared & Analyzed: 11/13/23				
Fluoride	1.68	mg/L		1.000	0.636	105	80-120	5	20
Matrix Spike Dup (B348981-MSD9)	Sample: GK01247-06				Prepared & Analyzed: 11/13/23				
Fluoride	1.17	mg/L		1.000	0.135	103	80-120	4	20
Matrix Spike Dup (B348981-MSDA)	Sample: GK01393-01				Prepared & Analyzed: 11/13/23				
Fluoride	1.76	mg/L		1.000	0.662	110	80-120	6	20

Batch B349001 - No Prep - SM 2320B 1997

Duplicate (B349001-DUP1)	Sample: GJ05390-01				Prepared & Analyzed: 11/13/23				
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	500	mg/L			500			0	10
Duplicate (B349001-DUP2)	Sample: GK00258-01				Prepared & Analyzed: 11/13/23				
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	875	mg/L			888			1	10
Duplicate (B349001-DUP3)	Sample: GK00477-01				Prepared & Analyzed: 11/13/23				
Alkalinity - bicarbonate as CaCO3	1000	mg/L			1000			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10

Batch B349006 - IC No Prep - EPA 300.0 REV 2.1

Calibration Blank (B349006-CCB1)					Prepared & Analyzed: 11/10/23				
Sulfate	0.00	mg/L							
Fluoride	0.00	mg/L							
Chloride	0.155	mg/L							
Calibration Check (B349006-CCV1)					Prepared & Analyzed: 11/10/23				
Sulfate	5.16	mg/L		5.000		103	90-110		
Fluoride	5.19	mg/L		5.000		104	90-110		
Chloride	5.08	mg/L		5.000		102	90-110		
Matrix Spike (B349006-MS1)	Sample: GK00898-01				Prepared & Analyzed: 11/10/23				
Sulfate	2.41	mg/L	Q1	1.500	ND	160	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	46	NR	80-120		
Fluoride	1.30	mg/L		1.500	ND	86	80-120		
Matrix Spike Dup (B349006-MSD1)	Sample: GK00898-01				Prepared & Analyzed: 11/10/23				
Fluoride	1.29	mg/L		1.500	ND	86	80-120	0.6	20
Sulfate	2.39	mg/L	Q2	1.500	ND	159	80-120	0.8	20
Chloride	< 1.0	mg/L	Q4	1.500	46	NR	80-120		20

Batch B349286 - No Prep - SM 2320B 1997

Duplicate (B349286-DUP1)	Sample: GK00654-01				Prepared & Analyzed: 11/15/23				
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	300	mg/L			312			4	10



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B349543 - No Prep - SM 2540C</u>									
Blank (B349543-BLK1)					Prepared & Analyzed: 11/17/23				
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B349543-BS1)					Prepared & Analyzed: 11/17/23				
Solids - total dissolved solids (TDS)	950	mg/L		1000	95	84.9-109			
Duplicate (B349543-DUP1)	Sample: GK03315-01				Prepared & Analyzed: 11/17/23				
Solids - total dissolved solids (TDS)	995	mg/L			1040		5	5	
Duplicate (B349543-DUP2)	Sample: GK03315-03				Prepared & Analyzed: 11/17/23				
Solids - total dissolved solids (TDS)	1190	mg/L	M		1080		10	5	



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

- M Analyte failed to meet the required acceptance criteria for duplicate analysis.
- Q1 Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q2 Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q3 Matrix Spike/Matrix Spike Duplicate both failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

A handwritten signature in black ink that reads "Diane Billings".

Certified by: Diane Billings, Project Manager



APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND
 EDW-257-301

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.

Plant: EDW
 Event: EDW-23Q4 Rev 0

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
AP05S	EDW_AP05#S	10/27/23	1610	6.23		BG
AP07S	EDW_AP07#S		1413	25.38		
AP08	EDW_AP08		1342	9.10		
AP09	EDW_AP09		1331	10.82		
APW-01	EDW_APW-01		1612	5.73		
AW-01	EDW_AW-01		1501	10.12		
AW-05	EDW_AW-05		1317	8.43		
AW-06	EDW_AW-06		1455	27.48		
AW-08	EDW_AW-08		1506	25.41		
AW-09	EDW_AW-09		1531	27.29		
AW-10	EDW_AW-10		1512	2.33		
AW-11	EDW_AW-11		1517	7.03		
AW-14	EDW_AW-14		1520	8.30		
AW-15	EDW_AW-15		1522	10.02		
AW-15S	EDW_AW-15#S		1524	10.04		
AW-16	EDW_AW-16		1439	25.92		
AW-17	EDW_AW-17		1435	26.56		
AW-18	EDW_AW-18		1431	28.00		
AW-19	EDW_AW-19		1351	19.16	AW-19 depth to water replaced with measurement from the purge record (Depth to water of 14.16 ft)	
AW-20	EDW_AW-20		1356	17.10		
AW-21	EDW_AW-21		1359	17.80		
AW-23	EDW_AW-23		1625	5.46		
EMW-05	EDW_EMW-05		1448	21.67		

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND
 EDW-257-301

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: EDW
 Event: EDW-23Q4 Rev 0

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
OW-01	EDW_OW-01	10/27/23	415	24.22		BG
OW-02	EDW_OW-02		526	9.71		
PTW-01	EDW_PTW-01		410	25.94		
PTW-02	EDW_PTW-02		522	9.42		
XPW01A	EDW_XPW01A_pore		1340	11.89		
XPW02	EDW_XPW02_pore		1340	21.63		
XPW03	EDW_XPW03_pore		1335	18.23		
SG-01	EDW_YLRIVER		546	34.43	431 BG 11/6/23	
SG-02	EDW_YSG-02		426	447.5	SG Not in Water	
SG-03	EDW_YSG-03	—	1352	449.1		

U:6/21/23 GKJ

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs on SAR-4 form may be collected at anytime during the sampling event.

Plant: EDW
Event: EDW-23Q4 Rev 0

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Data Logger Serial No.	On-site Transducer Data			Comments	Initials
						No. Macth?	WL Reading on Transducer (ft)	Data down-loaded?		
AP05S	EDW AP05#S	10/27/83	1610	6.23	21629301	No Transducer	N/A	N	N/A	BSC
AP07S	EDW AP07#S		1413	25.38	21615552					
AW-01	EDW AW-01		1501	10.12	21615144					
AW-05	EDW AW-05		1317	8.43	21615132					
AW-06	EDW AW-06		1455	27.48	21615127					
AW-08	EDW AW-08		1506	25.41	21615722					
AW-09	EDW AW-09		1531	27.29	21615130					
AW-10	EDW AW-10		1512	2.33	21615754					
AW-11	EDW AW-11		1517	7.03	21615129					
AW-15	EDW AW-15		1522	0.02	21615761					
AW-15S	EDW AW-15#S		1524	0.04	21629298					
AW-16	EDW AW-16		1439	25.92	21615714					
AW-17	EDW AW-17		1435	26.56	21615756					
AW-18	EDW AW-18		1431	28.00	21615763					
AW-19	EDW AW-19		1351	19.16	21615718					
AW-21	EDW AW-21		1359	17.80	21615514					
EMW-05	EDW EMW-05		—	1448	21.67	21615739	—	—	—	

AW-19 depth to water replaced with measurement from the purge record (Depth to water of 14.16 ft bmp)

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs on SAR-4 form may be collected at anytime during the sampling event.

Plant: EDW
Event: EDW-23Q4 Rev 0

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Data Logger Serial No.	On-site Transducer Data			Comments	Initials
						Does Data logger Serial No. Match?	WL Reading on Transducer (ft)	Data downloaded?		
XPW01A	EDW_XPW01A_pore	10/27/23	13:16	11.89	21615740	No	N/A	N	N/A	BG
XPW02	EDW_XPW02_pore			21.63	21615752					
XPW03	EDW_XPW03_pore			18.23	21629300					
SG-01	EDW_YILRIVER			34.143	TBD					

Notes:

Batt = battery
 bmp = below measuring point
 ft = feet
 H = high
 L = low
 M = medium
 R = replaced

U: 6/21/23 GKJ

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	<u>AP05S</u>	Purge Method:	<u>Dedicated pump</u>		
Date:	<u>11/6/2023</u>	Start Time:	<u>10:04</u>	Finish/Sample Time:	<u>11:00</u>
Well Depth (Bottom) From MP:	— ft	Min. Purge Volume:	— Gal / L		
Depth to Water From MP:	<u>6.30</u> ft	Total Purge Volume:	<u>1000</u> Gal / L <u>(102)</u>		
Water Column Length:	— ft	Max Drawdown:	— ft		
Well Water Volume:	— Gal / L	Total Drawdown:	<u>0.15</u> ft		

Reading (Units)	Time	Depth	Flow Rate	pH	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	10:26	6.45	200	6.80	1660	15.77	-123	1.61	561
2	10:28	6.45	200	6.80	1660	15.73	-126	1.54	529
3	10:30	6.45	200	6.80	1670	15.65	-127	1.49	531
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Metric

Sample Appearance: App 11/6/23

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) <u>1000mL</u>
1	R&B (P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P, 500mL) <u>1000mL</u>

Final ATV
Ferrous Iron 6.45 mg/L

Comments New pump installed to water level being stable pumped at 200 mL/min b/c

Sampler's Signature: Robert

BG

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT AP07S

Purge Method: BLADDER

Date: 11/3/23 Start Time: 1150 Finish/Sample Time: 1320

Well Depth (Bottom) From MP: — ft Min. Purge Volume: — Gal / L
 Depth to Water From MP: 25.15 ft Total Purge Volume: 1000 Gal / L mL
 Water Column Length: — ft Max Drawdown: — ft
 Well Water Volume: — Gal / L Total Drawdown: 0-20 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	ml/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1230	25.30	100	7.51	1320	16.21	-57	0	3.0
2	1231	25.32	100	7.50	1320	16.21	-56	0	2.9
3	1232	25.30	100	7.50	1320	16.20	-56	0	2.9
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

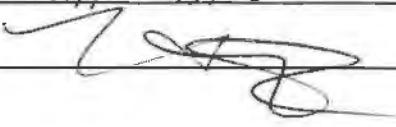
Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
	General (P, 250 mL)
1	HNO ₃ 2.5L
1	General 1000mL

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)
1	General 1000mL

Ferrous Iron 25.35 FT

FINAL DTW

Comments Dedicated pump installed
due to stable water level
well pumped at 200 ml/min
App 11/3/23

Sampler's Signature: 

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-01		Purge Method:	Dedicated pump																																																																											
Date:	11/16/2023	Start Time:	1235	Finish/Sample Time:	1440																																																																										
Well Depth (Bottom) From MP:	— ft		Min. Purge Volume:	— Gal / L																																																																											
Depth to Water From MP:	9.90 ft		Total Purge Volume:	1000 Gal / L	(ml)																																																																										
Water Column Length:	— ft		Max Drawdown:	— ft																																																																											
Well Water Volume:	— Gal / L		Total Drawdown:	12.60 ft																																																																											
<table border="1"> <thead> <tr> <th>Reading</th> <th>Time</th> <th>Depth</th> <th>Flow Rate</th> <th>pH</th> <th>Spec Cond</th> <th>Temp</th> <th>ORP</th> <th>DO</th> <th>Turb</th> </tr> <tr> <th>(Units)</th> <th></th> <th>ft.</th> <th>ml/min</th> <th>s.u.</th> <th>umhos/cm</th> <th>deg C</th> <th>mV</th> <th>mg/L</th> <th>NTU</th> </tr> </thead> <tbody> <tr><td>1</td><td>1255</td><td>11.60</td><td>100</td><td>6.77</td><td>1340</td><td>17.40</td><td>-79</td><td>1.94</td><td>308</td></tr> <tr><td>2</td><td>1257</td><td>11.78</td><td>100</td><td>6.77</td><td>1340</td><td>18.03</td><td>-80</td><td>1.85</td><td>310</td></tr> <tr><td>3</td><td>1259</td><td>11.99</td><td>100</td><td>6.76</td><td>1340</td><td>17.93</td><td>-83</td><td>1.80</td><td>304</td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>										Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb	(Units)		ft.	ml/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU	1	1255	11.60	100	6.77	1340	17.40	-79	1.94	308	2	1257	11.78	100	6.77	1340	18.03	-80	1.85	310	3	1259	11.99	100	6.76	1340	17.93	-83	1.80	304	4										5									
Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb																																																																						
(Units)		ft.	ml/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU																																																																						
1	1255	11.60	100	6.77	1340	17.40	-79	1.94	308																																																																						
2	1257	11.78	100	6.77	1340	18.03	-80	1.85	310																																																																						
3	1259	11.99	100	6.76	1340	17.93	-83	1.80	304																																																																						
4																																																																															
5																																																																															
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA																																																																						

Field Meter: Horsbt

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) 1000mL
1	RnS (P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) 1000mL

Final DTW
Ferrous Iron 22.50 mg/L

Comments Old pump replaced with new dedicated pump
Old pump failed here very poor recharge

Sampler's Signature:

BG

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-05 Purge Method: Submersible Pump
 Date: 11/16/2023 Start Time: 1327 Finish/Sample Time: 1547
 Well Depth (Bottom) From MP: ~ ft Min. Purge Volume: ~ Gal / L
 Depth to Water From MP: 8.68 ft Total Purge Volume: 1000 Gal / L L
 Water Column Length: ~ ft Max Drawdown: ~ ft
 Well Water Volume: ~ Gal / L Total Drawdown: 0.47 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1518	9.15	200	6.84	1730	17.23	-39	1.64	787
2	1520	9.15	200	6.85	1730	17.29	-40	1.55	746
3	1522	9.15	200	6.85	1730	17.30	-42	1.48	699
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: NOV/16m

Sample Appearance: App 11/6/23

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) <u>100mL</u>
1	Red (P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
1	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) <u>100mL</u>

Final DTW
Ferrous Iron 9.15 mg/L

Comments Pumped at 200 mL/min due to stable water level

Sampler's Signature: 

BG

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-06	Purge Method:	Bladder pump
Date:	11/6/23	Start Time:	1132
		Finish/Sample Time:	1250
Well Depth (Bottom) From MP:	pump ft	Min. Purge Volume:	1.0 Gal / L
Depth to Water From MP:	27.43 ft	Total Purge Volume:	1.3 Gal / L
Water Column Length:	— ft	Max Drawdown:	— ft
Well Water Volume:	— Gal / L	Total Drawdown:	6.88 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1149	28.90	100	7.47	1120	16.10	-84	1.85	776
2	1150	29.05	100	7.45	1130	16.09	-88	1.76	644
3	1151	29.20	100	7.41	1120	16.09	-91	1.59	609
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 1000mL) 1000mL
1	Rad 2.5L

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P, 1000mL) 1000mL

Comments

Sampler's Signature:

Joseph R. Reid
34.31 ft.
Final DTW

DR

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Site: Edwards Ash Pond

WELL/SAMPLE POINT AW-08

Purge Method:

Submersible pump

Date: 11/6/23

Start Time: 1500

Finish/Sample Time: 1613

Well Depth (Bottom) From MP: 59.96 ft

Min. Purge Volume: 1.0 Gal L

Depth to Water From MP: 25.43 ft

Total Purge Volume: 1.5 Gal L

Water Column Length: 34.53 ft

Max Drawdown: — ft

Well Water Volume: 20.91 Gal/L

Total Drawdown: 0.30 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1520	25.71	150	7.39	1610	18.60	-127	0.09	>1000
2	1521	25.71	150	7.35	1590	18.60	-141	0.05	>1000
3	1522	25.71	150	7.32	1550	18.58	-130	0.01	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meters: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely	X	
Good seal/drainage	X	
Well has weep holes	X	

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL)
1	Bad 2.5L

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P, 250mL) 1000ml

Comments

Ferrous Iron 25.73 mg/L
Final DTW f.t.

Sampler's Signature:

Jony R.R.

B61

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT	AW-09	Purge Method:	<u>Bladder pump</u>		
Date:	<u>11/6/23</u>	Start Time:	<u>1005</u>	Finish/Sample Time:	<u>1115</u>
Well Depth (Bottom) From MP:	<u>Pump</u>	ft	Min. Purge Volume:	<u>1.0</u>	Gal <u>L</u>
Depth to Water From MP:	<u>27.17</u>	ft	Total Purge Volume:	<u>1.3</u>	Gal <u>L</u>
Water Column Length:	<u>—</u>	ft	Max Drawdown:	<u>—</u>	ft
Well Water Volume:	<u>—</u>	Gal / L	Total Drawdown:	<u>7.84</u>	ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1020	28.39	100	7.19	1450	16.95	-109	2.08	399
2	1021	28.55	100	7.11	1470	16.93	-109	1.92	290
3	1022	28.70	100	7.07	1480	16.89	-110	1.80	234
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Med Strong

None Slight Med Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) 1000 mL
1	Rad 2.5 L

Comments No recharge.

Sampler's Signature:

~~Ferrous-Iron~~ mg/t

End DTW
35.01

Joseph R. Rath

10

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT	AW-10	Purge Method:	Submersible pump
Date:	11/6/23	Start Time:	1300
Well Depth (Bottom) From MP:	33.43 ft +0.07	Finish/Sample Time:	1440
Depth to Water From MP:	2.39 ft	Min. Purge Volume:	1.0 Gal / L
Water Column Length:	31.04 ft	Total Purge Volume:	1.3 Gal / L
Well Water Volume:	18.80 Gal / L	Max Drawdown:	— ft
		Total Drawdown:	0.02 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1404	2.39	150	7.44	2220	17.90	-131	1.91	471
2	1405	2.40	150	7.34	2200	17.82	-126	1.77	506
3	1406	2.40	150	7.31	2190	17.78	-125	1.63	520
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 500mL) 1000 mL
1	Rad 2.5 L

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P, 500mL) 1000 mL

Ferric Iron 2.41 mg/L
Final DTW

Comments

Sampler's Signature:

Joseph R. Red

BG

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
 EDW-257-301

WELL/SAMPLE POINT AW-11 Purge Method: Deflected pump

Date: 11/3/2023 Start Time: 1320 Finish/Sample Time: 1410

Well Depth (Bottom) From MP: — ft Min. Purge Volume: — Gal / L

Depth to Water From MP: 6.90 ft Total Purge Volume: 1000 Gal / L (m)

Water Column Length: — ft Max Drawdown: — ft

Well Water Volume: — Gal / L Total Drawdown: 0.10 ft

Reading (Units)	Time	Depth	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1338	7.00	200	6.88	1840	14.88	-143	2.0A	201
2	1340	7.00	200	6.88	1840	14.86	-145	2.00	182
3	1342	7.00	200	6.89	1850	14.80	-148	1.90	169
4									
5									

Stabilization NA NA NA ± 0.2 ± 3% ± 0.2 ± 20 ± 10% or 0.2 NA

Field Meter: Hor:In

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P,250mL) <u>1000mL</u>
1	PMS (P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) <u>1000mL</u>

Final DTU
Ferrous-Iron 7.00 mg/L

Comments Well pumpet at 200mL/min due to stable water level

Sampler's Signature:

BG

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT AW-14

Purge Method: Dedicated pump

Date: 11/13/2023 Start Time: 1154 Finish/Sample Time: 13 14
 Well Depth (Bottom) From MP: - ft Min. Purge Volume: - Gal / L
 Depth to Water From MP: 7.82 ft Total Purge Volume: 1000 Gal / L CL
 Water Column Length: - ft Max Drawdown: - ft
 Well Water Volume: - Gal / L Total Drawdown: 7.48 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1205	9.64	100	6.76	1830	14.45	-126	1.80	337
2	1210	9.75	100	6.76	1840	14.50	-127	1.66	340
3	1212	9.84	100	6.76	1840	14.52	-128	1.64	330
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hö1;6x

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

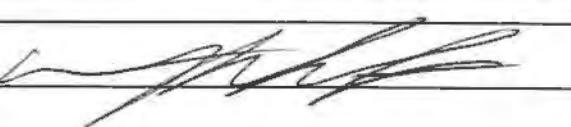
BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) <u>1000mL</u>
1	Ras (P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) <u>1000mL</u>

Final DO 15.80 CL mg/L

Comments Very poor recharge

Sampler's Signature: 

BG

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-15 Purge Method: bladder BG 11/2/23

Date: 11/2/23 Start Time: 1200 Finish/Sample Time: 1301319

Well Depth (Bottom) From MP: — ft Min. Purge Volume: 1.5 Gal L

Depth to Water From MP: 10.11 ft Total Purge Volume: 1.6 Gal L

Water Column Length: — ft Max Drawdown: — ft

Well Water Volume: — Gal / L Total Drawdown: 0.15 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1215	10.28	100	6.96	1933	13.91	-94	0.0	2.8
2	1216	10.27	100	6.97	1951	13.95	-94	0.0	2.6
3	1217	10.27	100	6.98	1948	13.98	-95	0.0	2.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P,250 mL) <u>1L</u>
1	Rack (P,2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) <u>1L</u>

Final DTW 10.26 ft mg/L

Comments

Sampler's Signature: Brendan Gleeson

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
 EDW-257-301

WELL/SAMPLE POINT AW-15

Purge Method: Bladder

Date: 11/17/23 Start Time: 1051 Finish/Sample Time: 1113

Well Depth (Bottom) From MP: 38.84 ft Top of Pump Min. Purge Volume: 1.5 Gal / C

Depth to Water From MP: 9.98 ft Total Purge Volume: 1.6 Gal / G

Water Column Length: 28.86 ft Max Drawdown: — ft

Well Water Volume: 17.48 Gal / G Total Drawdown: 0.20 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1101	10.18	100	6.80	1980	14.51	-102	0.55	19.7
2	1104	10.18	100	6.78	1980	14.60	-112	0.47	31.0
3	1107	10.18	100	6.77	1980	14.68	-116	0.39	4.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiba U-5000

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
/	General (P, 250 mL) <u>500</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final Dtw 10.18

Comments

Sampler's Signature:

Branden

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-15S Purge Method: Bladder
Date: 11/2/23 Start Time: 1320 Finish/Sample Time: 1431

Well Depth (Bottom) From MP: — ft Min. Purge Volume: 1.5 Gal (4)
Depth to Water From MP: 9.86 ft Total Purge Volume: 1.5 Gal (4)
Water Column Length: — ft Max Drawdown: — ft
Well Water Volume: — Gal / L Total Drawdown: 3.49 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1335	10.78	100	6.96	1788	16.19	0	0.0	1.7
2	1336	10.82	100	6.97	1790	16.16	0	0.0	1.8
3	1337	10.86	100	6.96	1795	16.09	1	0.0	1.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P,250 mL) 1L
1	RNA (P,2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) 1L

Comments

Ferrous Iron mg/L
Final Depth 13.35

Sampler's Signature: Boundary Dr.

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
 EDW-257-301

WELL/SAMPLE POINT AW-15S Purge Method: Bladder

Date: 11/17/23 Start Time: 1114 Finish/Sample Time: 1137
 BG 11/17/23
 Well Depth (Bottom) From MP: 18.35 ft Top of Pump Min. Purge Volume: 1.5 Gal / L
 Depth to Water From MP: 10.35 ft Total Purge Volume: 1.6 Gal L
 Water Column Length: 8.00 ft Max Drawdown: — ft
 Well Water Volume: 4.84 Gal (C) Total Drawdown: 0.94 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1124	11.02	100	6.89	1820	15.45	-35	1.12	95.5
2	1127	11.08	100	6.85	1820	15.51	-34	1.07	86.1
3	1130	11.16	100	6.87	1820	15.56	-34	0.98	60.5
4									
5									

Stabilization NA NA NA ± 0.2 ± 3% ± 0.2 ± 20 ± 10% or 0.2 NA

Field Meter: Hanna V-500

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P,250 mL) <u>500</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW 11.29

Comments

Sampler's Signature: Brendan Blawie

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
 EDW-257-301

WELL/SAMPLE POINT	<u>AW-16</u>	Purge Method:	<u>Dedicated Pump</u>		
Date:	<u>11/2/2023</u>	Start Time:	<u>1130</u>	Finish/Sample Time:	<u>1330</u>
Well Depth (Bottom) From MP:	<u>—</u> ft	Min. Purge Volume:	<u>—</u> Gal / L		
Depth to Water From MP:	<u>26.00</u> ft	Total Purge Volume:	<u>1000</u> Gal / L <u>(L)</u>		
Water Column Length:	<u>—</u> ft	Max Drawdown:	<u>—</u> ft		
Well Water Volume:	<u>—</u> Gal / L	Total Drawdown:	<u>0.80</u> ft		

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	<u>1150</u>	<u>26.45</u>	<u>100</u>	<u>6.71</u>	<u>2180</u>	<u>14.61</u>	<u>-125</u>	<u>0.91</u>	<u>0.0</u>
2	<u>1152</u>	<u>26.45</u>	<u>100</u>	<u>6.70</u>	<u>2180</u>	<u>14.62</u>	<u>-126</u>	<u>0.89</u>	<u>0.0</u>
3	<u>1153/151</u>	<u>26.45</u>	<u>100</u>	<u>6.71</u>	<u>2180</u>	<u>14.64</u>	<u>-126</u>	<u>0.86</u>	<u>0.0</u>
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hori 60

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
121	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
111	General (P, 250mL) <u>1000mL</u>
111	Lan8 (P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
111	General (P,500mL) <u>1000mL</u>

Comments Field Dug filled here

Ferrous Iron 26.80 mg/L

Sampler's Signature: [Signature]

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-16 Purge Method: Bladder
Date: 11/17/23 Start Time: 1010 Finish/Sample Time: 1043

Well Depth (Bottom) From MP: 56.78 ft Top of Pump Min. Purge Volume: 1.5 Gal (L)
Depth to Water From MP: 26.03 ft Total Purge Volume: 1.9 Gal (L)
Water Column Length: 30.75 ft Max Drawdown: — ft
Well Water Volume: 18.6 Gal (L) Total Drawdown: 0.81 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1020	26.86	100	6.85	2130	14.07	-80	2.75	12.3
2	1023	26.74	100	6.80	2140	13.99	-95	0.87	22.1
3	1026	26.75	100	6.76	2150	13.91	-111	0.76	24.4
4	1029	26.76	100	6.75	2160	13.85	-115	0.71	20.6
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: None Slight Mod. Strong

Color: None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign		
Casing locked/secure		
Well cap fits securely		
Good seal/drainage		
Well has weep holes		

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1+1	General (P, 250mL) 500

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final DTW 26.84

Comments Field Dupe filled here

Sampler's Signature: Brandon Ahrens

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301**

WELL/SAMPLE POINT **AW-17**

Purge Method: Dedicated pump

Date: 10-11-2023 Start Time: 1020 Finish/Sample Time: 1133

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 26.80 ft Total Purge Volume: 1000 Gal / L 42

Water Column Length: _____ ft Max Drawdown: _____ ft

Well Water Volume: _____ Gal / Total Drawdown: 1.50 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1036	27.65	100	6.80	1850	12.43	-109	0.96	119
2	1038	27.70	100	6.80	1840	13.03	-113	0.92	122
3	1040	27.72	100	6.80	1840	13.07	-115	0.88	118
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod Strong

Turb: None Slight Med Strong

1974-1975 - 1976

BOTTLE INFORMATION:		App 11/11/23	
Unfiltered		Filtered	
Qty	Bottles	Qty	Bottles
	VOAs (C,V, 40mL, HCL)	5	Metals (P,250mL, HNO3)
	VOAS (C,V, 40mL)	+	Ammonia (P,250mL, H2SO4)
	Organics (A,G,U 1000mL)	4	General (P,500mL) 1000 mL
	Organics (A,G,U 500mL)		
	TOC (A,V 40mL, H2SO4)		
	TOX (A,G 250mL, H2SO4)		
1 +	Metals (P,250mL, HNO3)		
	Cyanide (P, 250mL, NaOH)		
	Phenols (A,G,250mL, H2SO4)		
1	General (P, 250-mL) 1000mL		
1	Res (P, 2.5L, HNO3)		

Comments

Sampler's Signature:



BG

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
EDW-257-301

WELL/SAMPLE POINT AW-18 Purge Method: Dedicated pump

Date: 11/1/2023 Start Time: 1136 Finish/Sample Time: 1255

Well Depth (Bottom) From MP: — ft Min. Purge Volume: — Gal / L

Depth to Water From MP: 28.03 ft Total Purge Volume: 1000 Gal / L mt

Water Column Length: — ft Max Drawdown: — ft

Well Water Volume: — Gal / L Total Drawdown: 4.35 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	ml/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1156	29.50	100	6.84	1820	13.43	-108	0.96	166
2	1158	29.60	100	6.84	1830	13.43	-109	0.91	152
3	1200	29.70	100	6.84	1840	13.43	-111	0.88	1401
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horizon

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
1	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250mL) <u>1000mL</u>
1	Rat (P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) <u>1000mL</u>

Final DTW
Ferrous-Iron 32.38 mg/L

Comments

Sampler's Signature:

BG

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301**

WELL/SAMPLE POINT **AW-19**

Purge Method: Dedicated pump

Date: 11/11/2023 Start Time: 1303 Finish/Sample Time: 1412
Well Depth (Bottom) From MP: — ft Min. Purge Volume: — Gal / L
Depth to Water From MP: 14.19 ft Total Purge Volume: 1000 Gal / L ml
Water Column Length: — ft Max Drawdown: — ft
Well Water Volume: — Gal / L Total Drawdown: 3.14 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1318	16.05	100	7.06	1140	14.44	-67	1.07	84.8
2	1320	16.00	100	7.06	1140	14.47	-67	1.05	85.0
3	1322	16.10	100	7.05	1140	14.45	-66	1.00	79.1
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod Strong

Turb: None Slight Med Strong

Light **Miss** **Strong**

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
/	Metals (P, 250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
/	General (P, 250 mL) 1000 mL
/	Ras (P 2.5L, HNO ₃)

Serial OTW 17.33
Ferrous Iron mg/l

Comments

Sampler's Signature:

[Signature]

86

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 EDWARDS POWER PLANT, ASH POND **Site: Edwards Ash Pond**
 EDW-257-301

WELL/SAMPLE POINT AW-21 Purge Method: Dedicated pump

Date: 11/2/2023 Start Time: 1345 Finish/Sample Time: 1310

Well Depth (Bottom) From MP: — ft Min. Purge Volume: — Gal / L

Depth to Water From MP: 17.69 ft Total Purge Volume: 1000 Gal / L (1)

Water Column Length: — ft Max Drawdown: — ft

Well Water Volume: — Gal / L Total Drawdown: 0.65 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1405	18.30	100	7.15	1100	15.21	57	2.58	20.5
2	1407	18.32	100	7.16	1100	15.31	49	2.49	20.2
3	1409	18.34	100	7.16	1100	15.42	46	2.39	20.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None Slight Mod. Strong

Color None Slight Mod. Strong

Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
/	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
/	General (P, 250 mL) <u>(about mL)</u>
/	ROX (P, 2.5L, HNO ₃)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
1	General (P,500mL) <u>1000mL</u>

Final Tot 18.34 DL
Ferrous Iron mg/L

Comments

Sampler's Signature:

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND Site: Edwards Ash Pond
EDW-257-301

WELL/SAMPLE POINT AW-21 Purge Method: Bladder
Date: 11/17/23 Start Time: 0935 Finish/Sample Time: 1003

Well Depth (Bottom) From MP: 33.50 ft Top of Pump Min. Purge Volume: 1.5 Gal 1
Depth to Water From MP: 17.78 ft Total Purge Volume: 1.8 Gal 1
Water Column Length: 15.72 ft Max Drawdown: — ft
Well Water Volume: 9.5 Gal 0 Total Drawdown: 0.89 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	0949	18.60	100	7.37	1080	14.28	198	3.91	10.1
2	0952	18.64	100	7.22	1080	14.18	196	2.74	7.0
3	0955	18.64	100	7.19	1080	14.10	194	1.99	0.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: None Slight Mod. Strong
Color: None Slight Mod. Strong
Turb: None Slight Mod. Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure		X
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCl)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H ₂ SO ₄)
	TOX (A,G 250mL, H ₂ SO ₄)
	Metals (P,250mL, HNO ₃)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H ₂ SO ₄)
1	General (P, 250 mL) <u>500</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)

Final PTW 18.67

Comments

Sampler's Signature: Branden Dillen

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Amberton			Location:	Edwards				
Weather:	42°F Sunny Wind SW 9 mph			Environment:	grass, gravel, dirt				
Multiparameter Water Meter	Make:	HORIBA	Model:	V5000	Serial Number:	GUS83C85			
Water Level Meter	Make:	SOLinst	Model:	101	Serial Number:	33459			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	10	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	237	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.08	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	10.2	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0920		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.08	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25
pH 7.00b	6.95	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	10.06	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%			Ricca	4209A12	Aug-24

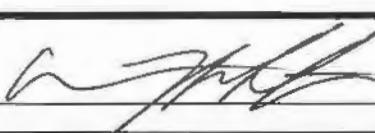
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	11-15-23			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1010	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	11/11/2023
------------	---	-------	------------

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton			Location:	Edwards				
Weather:	H10 - SHOT sunny wind SW lmpth			Environment:	grass, gravel, dirt				
Multiparameter Water Meter	Make:	Hur.6n	Model:	U5000	Serial Number:	GUS 83C-85			
Water Level Meter	Make:	SOLinst	Model:	101	Serial Number:	33459			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.92	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	10	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2060	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	235	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.05	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.3	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 18°

ICV (Initial Calibration Verification)					Time:	11/3			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	N/A		Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P			Geotech	2GF113	Jun-24
pH 10.00b	9.96	s.u.	±0.15 s.u.	L			Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	L			Ricca	4209A12	Aug-24

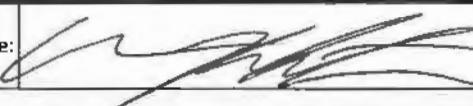
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	11/19			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	10.30	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	L			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	11/12/2023
------------	---	-------	------------

Edw

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Brendan Glenon		Location:	Edwards	
Weather:	41° Mostly Sunny 10 mph NE		Environment:	Gravel Road	
Multiparameter Water Meter	Make:	HoriBa	Model:	V-5700	Serial Number: PW2GYJD3
Water Level Meter	Make:	Heron	Model:	Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1978	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	248 @ 0,80	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	+	-	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1048
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	N
pH 7.00b	6.87	s.u.	±0.15 s.u.		
pH 10.00b	10.01	s.u.	±0.15 s.u.	+	
SC 1000	991	µS/cm	±5%	-	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1445
Buffer	Check Value	Units	Range	Pass/Fail	Adjusted Reading
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N/A
pH 7.00a	7.01	s.u.	±0.1 s.u.		
pH 10.00a	10.01	s.u.	±0.1 s.u.	+	
SC 1000	1025	µS/cm	±5%		
DO (Zero pt)	0.0	mg/L	±0.1 mg/L		
Turbidity (DI)	0.0	NTU	<2 NTU	-	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:
Buffer	Check Value	Units	Range	Pass/Fail	Adjusted Reading
4.00a		s.u.	±0.1 s.u.		
7.00a		s.u.	±0.1 s.u.		
10.00a		s.u.	±0.1 s.u.		
SC 1000		µS/cm	±5%		
DO (Zero pt)		mg/L	±0.1 mg/L		
Turbidity (DI)		NTU	<2 NTU		

Comments:

Signature:	Brendan Glenon	Date:	11/21/23
------------	----------------	-------	----------

B6

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Lemerton			Location:	Edwards				
Weather:	45°-58°C Sunny Wind SW 13 mph			Environment:	Grass, gravel, soil				
Multiparameter Water Meter	Make:	Hach	Model:	V5000	Serial Number:	GUS 83C85			
Water Level Meter	Make:	Heron	Model:	Dipper	Serial Number:	11FF2209305ML			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	2.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	231	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0926

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	10.05	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	989	µS/cm	±5%	P		Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1415

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	993	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	11/3/2023
------------	---	-------	-----------

BG

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Logan Ross		Location:	EDWARDS POWERSTATION					
Weather:	CLOUDY 41°-61° 16mph S		Environment:	GRASSLAND					
Multiparameter Water Meter	Make:	HORIBA	Model:	U-5000	Serial Number:	PWZ64JD3			
Water Level Meter	Make:	Heron	Model:	dipper	Serial Number:	3777-T			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	N	NA	MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	N	NA	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1920	µS/cm	±5%	P	N	NA	Geotech	3GF1197	Jun-24
ORP	271	mV	±15 mV	F	Y	241	InSitu	3GD927	Jan-24
DO (Zero pt)	0.00	mg/L	±0.1	P	N	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0845			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25	
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	NA	Geotech	2GF113	Jun-24	
pH 10.00b	9.80	s.u.	±0.15 s.u.	P	NA	Geotech	3GA1134	Jan-25	
SC 1000	1040	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24	

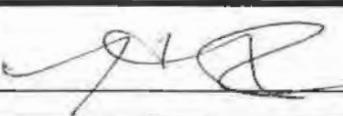
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	151			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	N	NA	MSI	023051-02	2/21/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.	P	N	NA	MSI	022361-01	12/27/2024
SC 1000	1040	µS/cm	±5%	P	N	NA	Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	N	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	11/3/23
------------	---	-------	---------

BGn

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Remerton			Location:	Edwards				
Weather:	62° - 69° F Cloudy Wind SW 45 mph			Environment:	Soil grass, gravel				
Multiparameter Water Meter	Make:	Heron	Model:	V5000	Serial Number:	WUL 83185			
Water Level Meter	Make:	Heron	Model:	Dipper T	Serial Number:	3717-T			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	20	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	226	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	10.2	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0911		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25
pH 7.00b	7.85	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P		Ricca	4209A12	Aug-24

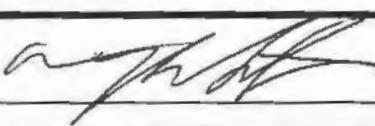
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1558			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	11/16/2023
------------	---	-------	------------

8G

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed			Location:	Edward Power Station				
Weather:	55-70°F mostly sunny			Environment:	Muddy/grassy				
Multiparameter Water Meter	Make:	Horiba	Model:	U5000	Serial Number:	Y29KJ9HA			
Water Level Meter	Make:	Horin	Model:	Series 1900	Serial Number:	19FF2111192HB			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	N		MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC Zero (DI)	2	µS/cm	<25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	N		Geotech	3GF1197	Jun-24
ORP	241	mV	±15 mV	P	N		InSitu	3GD927	Jan-24
DO (Zero pt)	0.05	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	98.1	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	940			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25	
pH 7.00b	6.97	s.u.	±0.15 s.u.	P	N	Geotech	2GF113	Jun-24	
pH 10.00b	10.05	s.u.	±0.15 s.u.	P	N	Geotech	3GA1134	Jan-25	
SC 1000	1050	µS/cm	±5%	P	N	Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1630			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	N		MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC 1000	1010	µS/cm	±5%	P	N		Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	N		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:				Date:	11/6/23
------------	---	--	--	-------	---------

BC

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Brendan Glennon			Location:	Edwards				
Weather:	48° Sunny	3rd S		Environment:	Grassy field				
Multiparameter Water Meter	Make:	HoriBa	Model:	V-5000	Serial Number:	WUG83C 85			
Water Level Meter	Make:	Heron	Model:	Dipper T	Serial Number:	3717-T			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	± 0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.96	s.u.	± 0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.97	s.u.	± 0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	14	$\mu\text{s}/\text{cm}$	$0 < 25 \mu\text{s}/\text{cm}$				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	$\mu\text{s}/\text{cm}$	$\pm 5\%$				Geotech	3GF1197	Jun-24
ORP	2200 mV	mV	± 15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.07	mg/L	± 0.1				Macron	#000228049	8/26/2025
DO (Saturated)	9.1	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time:	BG 11/17/23			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.09	s.u.	± 0.15 s.u.	P	N	Geotech	3GB1049	Feb-25	
pH 7.00b	6.97	s.u.	± 0.15 s.u.			Geotech	2GF113	Jun-24	
pH 10.00b	9.92	s.u.	± 0.15 s.u.			Geotech	3GA1134	Jan-25	
SC 1000	1020	$\mu\text{s}/\text{cm}$	$\pm 5\%$			Ricca	4209A12	Aug-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:	11/17/23			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	± 0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	± 0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.45	s.u.	± 0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1030	$\mu\text{s}/\text{cm}$	$\pm 5\%$				Ricca	4209A12	Aug-24
DO (Zero pt)	0.07	mg/L	± 0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	± 0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	± 0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	± 0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		$\mu\text{s}/\text{cm}$	$\pm 5\%$				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	± 0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Comments:									
Signature:					Date:	11/17/23			

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

6K00258

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Edwards	Report To	Brian Voelker	Attention	Mark Davis
Address	7800 Ciclo Lane Peoria, IL 61607	Copy To	Sam Davies samantha.davies@vistracorp.com Mark Davis-Mark.Davis1@vistracorp.com	Company Name	Vistra Corp-Edwards
Email To	brian.voelker@vistracorp.com	Purchase Order No.		Address	see Section A
Phone	(217) 753-8911	Fax		Office Reference	
Requested Due Date/TAT:	10 day	Project Name		Project Manager	
		Project Number	2285	Profile #	
				Site Location	IL
				STATE:	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	Matrix Code CODE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						↓ Analysis Test ↓	Requested Analysis Filtered (Y/N)						Residual Chlorine (Y/N)	Project No./Lab I.D.
				SAMPLE TYPE (G=GRAB C=COMP)	DATE			TIME	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈		Methanol	Other	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-PGMP-301		
1	AP05S																					
2	AP07S																					
3	APW-01																					
4	AW-01																					
5	AW-05																					
6	AW-06																					
7	AW-08																					
8	AW-09																					
9	AW-10																					
10	AW-11																					
11	AW-14																					
12	AW-15																					
13	AW-15S																					
14	AW-16																					
15	AW-17	WT	6	11/1/23	1133		4 X X															
16	AW-18	WT	6	11/1/23	1255		4 X X															
ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS										
EDW-23Q4-Rev 0				<i>[Signature]</i>		11/1/23	1609	<i>[Signature]</i>		11/1/23	1609	5.8	Y	N	Y	Temp in °C	Received on Ice (Y/N)	Custody Sealed/Cooler (Y/N)	Samples intact (Y/N)			
SAMPLER NAME AND SIGNATURE																						
PRINT Name of SAMPLER: <i>Aaron Remington</i>																						
SIGNATURE of SAMPLER: <i>[Signature]</i>												DATE Signed (MM/DD/YY): 11/1/2023										

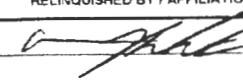
APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain of Custody is a LEGAL DOCUMENT. All relevant forms must be completed accurately.

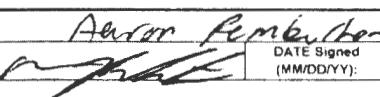
Page 2 of 2

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Edwards	Report To	Brian Voelker	Attention	Mark Davis
Address	7800 Ciclo Lane	Copy To	Sam Davies samantha.davies@vistracorp.com	Company Name	Vistra Corp-Edwards
Phone	(217) 753-8911	Fax		Address	see Section A
Email To	Brian.Voelker.VistraCorp.com	Purchase Order No		Quote Reference	
Requested Due Date/TAT:	10 day	Project Name		Project Manager	
Project Number	2285	Profile #		Site Location	IL
				STATE:	

ITEM #	Section D Required Client Information	Valid Matrix Codes		SAMPLE TYPE	COLLECTED		SAMPLE TEMP AT COLLECTION	Requested Analysis Filtered (Y/N)														
		MATRIX	CODE		MATRIX CODE	Specified Codes to (P)		DATE	TIME	# OF CONTAINERS	Preservatives											
1	AW-19	WT	6	11/1/23	1412	4	X	X	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Y/N	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW PGMP 301	Residual Chlorine (Y/N)	Project No./Lab I.D.
2	AW-20	WT	6	11/1/23	1536	4	X	X														
3	AW-21																					
4	AW-23																					
5	EMW-05																					
12	Field Blank																					
13																						
14																						
15																						
16																						
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE	TIME	ACCEPTED BY / AFFILIATION			DATE	TIME	SAMPLE CONDITIONS									
EDW-23Q4-Rev 0						11/1/23	1609				11/1/23	1609	5.8	Y	N	Y	Temp in C	Received on ice (Y/N)	Custody Sealed/Cooler (Y/N)	Samples intact (Y/N)		

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:



SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY): 11/1/2023

**APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301**

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2									
Company: Vistra Corp-Edwards		Report To: Brian Voelker		Attention: Mark Davis											
Address: 7800 Cllico Lane Peoria, IL 61607		Copy To: Sam Davies-samantha.davies@vistracorp.com Mark Davis-Mark.Davis1@vistracorp.com		Company Name: Vistra Corp-Edwards		REGULATORY AGENCY									
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Quote Reference:		NPDES	GROUND WATER	DRINKING WATER							
Phone: (217) 753-8911		Fax:		Project Manager:		UST	RCRA	OTHER							
Requested Due Date/TAT: 10 day		Project Number: 2285		Profile #:		Site Location:	IL	6K00477 gej							
Requested Analysis Filtered (Y/N)															
ITEM #	Section D Required Client Information		MATRIX CODE (see valid codes to left)	COLLECTED		# OF CONTAINERS	Preservatives		Y/N	Analysis Test	EDW-257-301 EDW-845-301 EDW-SUP-000 EDW-PGMP-301	Residual Chlorine (Y/N)	Project No./Lab I.D.		
	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE			MATRIX TYPE (G-GRAB, G-COMP)	DATE		TIME	SAMPLE TEMP AT COLLECTION						Unpreserved	H ₂ SO ₄
1	AP05S														
2	AP07S														
3	APW-01														
4	AW-01														
5	AW-05														
6	AW-06														
7	AW-08														
8	AW-09														
9	AW-10														
10	AW-11														
11	AW-14														
12	AW-15		WT	6	11/2/23	1319	4	X	X						
13	AW-15S		WT	6	11/2/23	1431	4	X	X						
14	AW-16		WT	6	11/2/23	1338	4	S	S						
15	AW-17														
16	AW-18														
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION			DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q4-Rev 0					11/2/23	1600				11/2/23	1600	14.5	Y	N	4

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on ice (Y/N)	Custody Sealed/Cooler (Y/N)	Samples In tact (Y/N)
PRINT Name of SAMPLER:	Arach Pemberton				
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	11/02/23		

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis			
Address: 7800 Ciclo Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Company Name: Vistra Corp-Edwards	REGULATORY AGENCY		
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location	STATE: IL	GK00477 guy
Requested Due Date/TAT:	10 day	Project Number: 2285	Profile #:		

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 /,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Residual Chlorine (Y/N)	Project No./Lab I.D.
		MATRIX	CODE				MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃		
1	AW-19	DW												EDW-257-301	
2	AW-20	WT												EDW-845-301	
3	AW-21	WT	10/2/23	1310	4	X	X							EDW-SUP-000	
4	AW-23													EDW-PGMP-301	
5	EMW-05														
12	Field Blank	WT	11/2/23	1315	4	X	X								
13	AW-16 FD	WT	11/2/23	1338	4	X	X								
14															
15															
16															
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS				
EDW-23Q4-Rev 0			<i>[Signature]</i>		11/2/23	1600	<i>[Signature]</i>		11/2/23	1600	14.5	Y	N	4	

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)
PRINT Name of SAMPLER:	<i>Aaron Remeleka</i>		
SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YY):	11/02/23
		Samples Intact (Y/N)	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis			
Address: 7800 Cilco Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Company Name: Vistra Corp-Edwards	REGULATORY AGENCY		
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location	STATE: IL	6K000834 gcf
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Project No./Lab I.D.
				SAMPLE TYPE (G=GRAB C=COMP)	DATE			TIME	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test ↓ Y/N	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-PGM-301			
1	AP05S	WT	6	11/3/23	1320		4	X	X														
2	AP07S	WT	6	11/3/23	1320		4	X	X														
3	APW-01																						
4	AW-01																						
5	AW-05																						
6	AW-06																						
7	AW-08																						
8	AW-09																						
9	AW-10																						
10	AW-11	WT	6	11/3/23	1410		4	X	X														
11	AW-14	WT	6	11/3/23	1314		4	X	X														
12	AW-15																						
13	AW-15S																						
14	AW-16																						
15	AW-17																						
16	AW-18																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q4-Rev 0	<i>[Signature]</i>	11/3/23	1503	<i>[Signature]</i>	11/3/23	1503	10.7	Y	N	4

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Samples In tact (Y/N)
PRINT Name of SAMPLER:	<i>[Signature]</i>				
SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YY):	11/03/23		

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis			
Address: 7800 Cilco Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Company Name: Vistra Corp-Edwards	REGULATORY AGENCY		
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location:	IL	
Requested Due Date/TAT:	10 day	Project Number: 2285	Profile #:		

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	Matrix Code (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./Lab I.D.
				DATE	TIME			Unpreserved										Y/N	Analysis Test		
								H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	EDW-257-301	EDW-845-301	EDW-SUP-000				
1	AW-19																				
2	AW-20																				
3	AW-21																				
4	AW-23	WT 6	11/3/23	1130	4 K X																
5	EMW-05	WT 6	11/3/23	1143	4 L X																
12	Field Blank																				
13																					
14																					
15																					
16																					
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS										
EDW-23Q4-Rev 0			<i>[Signature]</i>		11/3/23	1503	<i>grace</i>		11/3/23	1503	10.7	N									

SAMPLER NAME AND SIGNATURE		Temp in °C
PRINT Name of SAMPLER:	<i>Aaron Rumberton</i>	
SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YY): 11/6/23
Custody Sealed/Cooler (Y/N)		Samples Intact (Y/N)

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

6K00898

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2	
--	--	---	--	--	--	--------------	--

Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis	REGULATORY AGENCY				
Address: 7800 Ciclo Lane Peoria, IL 61607	Copy To: Sam Davies-samantha.davies@vistracorp.com Mark Davis-Mark.Davis1@vistracorp.com	Company Name: Vistra Corp-Edwards	NPDES	GROUND WATER	DRINKING WATER		
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A	UST	RCRA	OTHER		
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location:	IL			
Requested Due Date/TAT: 10 day		Project Number: 2285	Profile #:				

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./Lab I.D.
				SAMPLE TYPE (G=GRAB C=COMP)	DATE			TIME	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		
1	SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	WT 6	11/6/23	1100	4	X	X										
2	AP07S				4	X											
3	APW-01	WT 6	11/6/23	1210	4	X	X										
4	AW-01	WT 6	11/6/23	1440	4	X	X										
5	AW-05	WT 6	11/6/23	1547	4	X	X										
6	AW-06	WT 6	11/6/23	1250	4	X	X										
7	AW-08	WT 6	11/6/23	1613	4	X	X										
8	AW-09	WT 6	11/6/23	1115	4	X	X										
9	AW-10	WT 6	11/6/23	1440	4	X	X										
10	AW-11																
11	AW-14																
12	AW-15																
13	AW-15S																
14	AW-16																
15	AW-17																
16	AW-18																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q4-Rev 0	<i>[Signature]</i>	11/6/23	1704	<i>[Signature]</i>	11/6/23	1710	5.4	Y	Y	<i>[Signature]</i>

SAMPLER NAME AND SIGNATURE		
PRINT Name of SAMPLER: <i>Aaron Pemberton</i>		
SIGNATURE of SAMPLER: <i>[Signature]</i>		
DATE Signed (MM/DD/YY): 11/6/23		
Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)
Samples In tact (Y/N)		

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

GK00898

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:											
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis		Company Name: Vistra Corp-Edwards	Address: see Section A	REGULATORY AGENCY									
Address: 7800 Ciclo Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Quote Reference:		NPDES	GROUND WATER	DRINKING WATER									
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Project Manager:		UST	RCRA	OTHER									
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Profile #:													
Phone: (217) 753-8911	Fax:														
Requested Due Date/TAT: 10 day	Project Name: 2285														
Requested Analysis Filtered (Y/N)															
ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Y/N	Analysis Test ↑	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-PGMP-301	Residual Chlorine (Y/N)	Project No / Lab I.D.
				DATE	TIME										
1	AW-19														
2	AW-20														
3	AW-21														
4	AW-23														
5	EMW-05														
12	Field Blank														
13	AW-01 Dvp	WT 6	11/6/12 5	1440	4 X	R									
14	Equipment Blank 1	WT 6	11/6/12 5	1645	4 X	X									
15															
16															
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS					
EDW-23Q4-Rev 0		<i>[Signature]</i>		11/6/13	1709	<i>[Signature]</i>		11/6/13	1710	S.C	T	T	T		

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

Baron Robertson

DATE Signed
(MM/DD/YY): 11/06/12 3

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

6K03315

65

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:				Page: 1 of 2																																											
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis																																																	
Address: 7800 Cilco Lane Peoria, IL 61607	Copy To: Sam Davies-samantha.davies@vistracorp.com Mark Davis-Mark.Davis1@vistracorp.com	Company Name: Vistra Corp-Edwards						REGULATORY AGENCY																																											
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Address: see Section A						NPDES GROUND WATER DRINKING WATER																																											
Phone: (217) 753-8911 Fax	Project Name: 2285	Quote Reference:						UST RCRA OTHER																																											
Requested Due Date/TAT: 10 day	Project Number: 2285	Project Manager:						Site Location: IL STATE: IL																																											
								Requested Analysis Filtered (Y/N)																																											
ITEM #	Section D Required Client Information: SAMPLE ID (A-Z 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE		COLLECTED		# OF CONTAINERS	Preservatives	Y/N	Analysis Test	Y/N	Residual Chlorine (Y/N)	Project No./ Lab I.D.																																							
		MATRIX	CODE	DATE	TIME								SAMPLE TEMP AT COLLECTION	Unreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other																														
1	AW-15	GW	G	11/17/23	1113	1								X																																					
2	AW-15S	GW	G		1137	1								X																																					
3	AW-16	GW	G		1043	1								X																																					
4	AW-16 FD	GW	G		1043	1								X																																					
5	AW-21	GW	G		1003	1								X																																					
6																																																			
7																																																			
8																																																			
9																																																			
10																																																			
11																																																			
12																																																			
13																																																			
14																																																			
15																																																			
16																																																			
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS																																									
EDW-23Q4-Rev 1		Brendan Gilenson		11/17/23	13:30	<i>[Signature]</i>		11/17/23	12:12	13.9	Y	N	Y																																						
<table border="1"> <tr> <td colspan="13">SAMPLER NAME AND SIGNATURE</td> </tr> <tr> <td colspan="13">PRINT Name of SAMPLER: <i>Brendan Gilenson</i></td> </tr> <tr> <td colspan="13">SIGNATURE of SAMPLER: <i>Brendan Gilenson</i> DATE Signed (MM/DD/YY): 11/17/23</td> </tr> </table>													SAMPLER NAME AND SIGNATURE													PRINT Name of SAMPLER: <i>Brendan Gilenson</i>													SIGNATURE of SAMPLER: <i>Brendan Gilenson</i> DATE Signed (MM/DD/YY): 11/17/23												
SAMPLER NAME AND SIGNATURE																																																			
PRINT Name of SAMPLER: <i>Brendan Gilenson</i>																																																			
SIGNATURE of SAMPLER: <i>Brendan Gilenson</i> DATE Signed (MM/DD/YY): 11/17/23																																																			
<table border="1"> <tr> <td>Temp in C</td> <td>Received on Ice (Y/N)</td> <td>Custody Sealed Cooler (Y/N)</td> <td>Samples Intact (Y/N)</td> </tr> </table>													Temp in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)																																			
Temp in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)																																																



December 14, 2023

Brian Voelker
Vistra - Edwards
604 Pierce Boulevard
O'Fallon, IL 62269

Dear Brian Voelker:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

A handwritten signature in black ink that reads "Diane Billings".

Diane Billings
Project Manager



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GK00259

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GK00479

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GK00657

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GK00902

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800) 752-6651

ANALYTICAL RESULTS

Sample: GK00259-01 **Sampled:** 11/01/23 11:33
Name: AW-17 **Received:** 11/01/23 16:09
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	2.75	pCi/L			1	0.699	11/21/23 14:19	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt. Juliet Tn

Rad 226 and 228-
Subcontract 2.75 pCi/L 1 0.699 11/21/23 14:19 PACE 904.0 903.0

Sample: GK00259-02 **Sampled:** 11/01/23 12:55
Name: AW-18 **Received:** 11/01/23 16:09
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	4.06	pCi/L			1	0.713	11/21/23 14:19	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet- Tn

Rad 226 and 228-
Subcontract 4.06 pCi/L 1 0.713 11/21/23 14:19 PACE 904.0 903.0

Sample: GK00259-03 **Sampled:** 11/01/23 14:12
Name: AW-19 **Received:** 11/01/23 16:09
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	0.982	pCi/L			1	0.531	11/21/23 14:19	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 0.982 pCi/L 1 0.531 11/21/23 14:19 PACE 904.0 903.0

Sample: GK00259-04 **Sampled:** 11/01/23 15:36
Name: AW-20 **Received:** 11/01/23 16:09
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.72	pCi/L			1	0.741	11/21/23 14:19	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.72 pCi/L 1 0.741 11/21/23 14:19 PACE 904.0 903.0



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00479-01 **Sampled:** 11/02/23 13:19
Name: AW-15 **Received:** 11/02/23 16:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	5.52	pCi/L			1	0.628	11/22/23 21:28	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt. Juliet, TN

Rad 226 and 228-
Subcontract 5.52 pCi/L 1 0.628 11/22/23 21:28 PACE 904.0 903.0

Sample: GK00479-02 **Sampled:** 11/02/23 14:31
Name: AW-15S **Received:** 11/02/23 16:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	1.7	pCi/L			1	0.511	11/22/23 21:28	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.7 pCi/L 1 0.511 11/22/23 21:28 PACE 904.0 903.0

Sample: GK00479-03 **Sampled:** 11/02/23 13:38
Name: AW-16 **Received:** 11/02/23 16:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	3.93	pCi/L			1	0.657	11/22/23 21:28	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 3.93 pCi/L 1 0.657 11/22/23 21:28 PACE 904.0 903.0

Sample: GK00479-04 **Sampled:** 11/02/23 13:10
Name: AW-21 **Received:** 11/02/23 16:00
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.26	pCi/L			1	0.537	11/22/23 21:28	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 1.26 pCi/L 1 0.537 11/22/23 21:28 PACE 904.0 903.0



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GK00479-05 **Sampled:** 11/02/23 13:15
Name: FIELD BLANK **Received:** 11/02/23 16:00
Matrix: DI Water - Field Blank

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	1.04	pCi/L			1	0.593	11/22/23 21:28	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt. Juliet, Tn

Rad 226 and 228-
Subcontract 1.04 pCi/L 1 0.593 11/22/23 21:28 PACE 904.0 903.0

Sample: GK00479-06 **Sampled:** 11/02/23 13:38
Name: AW-16 FD **Received:** 11/02/23 16:00
Matrix: Ground Water - Field Duplicate

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	4.6	pCi/L			1	0.749	11/22/23 21:28	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 4.6 pCi/L 1 0.749 11/22/23 21:28 PACE 904.0 903.0

Sample: GK00657-01 **Sampled:** 11/03/23 13:20
Name: AP07S **Received:** 11/03/23 15:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	1.02	pCi/L			1	0.523	12/12/23 14:33	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract 1.02 pCi/L 1 0.523 12/12/23 14:33 PACE 904.0 903.0

Sample: GK00657-02 **Sampled:** 11/03/23 14:10
Name: AW-11 **Received:** 11/03/23 15:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.94	pCi/L			1	0.533	12/12/23 14:33	PACE	904.0 903.0

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-
Subcontract 1.94 pCi/L 1 0.533 12/12/23 14:33 PACE 904.0 903.0



ANALYTICAL RESULTS

Sample: GK00657-03 **Sampled:** 11/03/23 13:14
Name: AW-14 **Received:** 11/03/23 15:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.87	pCi/L			1	0.679	12/12/23 14:33	PACE	904.0 903.0

Sample: GK00657-04 **Sampled:** 11/03/23 11:30
Name: AW-23 **Received:** 11/03/23 15:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.85	pCi/L			1	0.852	12/12/23 14:33	PACE	904.0 903.0

Sample: GK00657-05 **Sampled:** 11/03/23 11:43
Name: EMW-05 **Received:** 11/03/23 15:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.519	pCi/L			1	0.439	12/12/23 14:33	PACE	904.0 903.0

Sample: GK00902-01 **Sampled:** 11/06/23 11:00
Name: AP05S **Received:** 11/06/23 17:10
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.94	pCi/L			1	0.861	12/12/23 14:33	PACE	904.0 903.0



ANALYTICAL RESULTS

Sample: GK00902-02 **Sampled:** 11/06/23 12:10
Name: APW-01 **Received:** 11/06/23 17:10
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.7	pCi/L			1	0.78	12/12/23 14:33	PACE	904.0 903.0

Sample: GK00902-03 **Sampled:** 11/06/23 14:40
Name: AW-01 **Received:** 11/06/23 17:10
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	4.72	pCi/L			1	0.694	12/12/23 14:33	PACE	904.0 903.0

Sample: GK00902-04 **Sampled:** 11/06/23 15:47
Name: AW-05 **Received:** 11/06/23 17:10
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.465 J	pCi/L			1	0.48	12/12/23 14:33	PACE	904.0 903.0

Sample: GK00902-05 **Sampled:** 11/06/23 12:50
Name: AW-06 **Received:** 11/06/23 17:10
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.785	pCi/L			1	0.438	12/12/23 14:33	PACE	904.0 903.0



ANALYTICAL RESULTS

Sample: GK00902-06 **Sampled:** 11/06/23 16:13
Name: AW-08 **Received:** 11/06/23 17:10
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	29.1	pCi/L			1	1.29	12/12/23 14:33	PACE	904.0 903.0

Sample: GK00902-07 **Sampled:** 11/06/23 11:15
Name: AW-09 **Received:** 11/06/23 17:10
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.35	pCi/L			1	0.565	12/12/23 14:33	PACE	904.0 903.0

Sample: GK00902-08 **Sampled:** 11/06/23 14:40
Name: AW-10 **Received:** 11/06/23 17:10
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.58	pCi/L			1	1.15	12/12/23 14:33	PACE	904.0 903.0

Sample: GK00902-09 **Sampled:** 11/06/23 14:40
Name: AW-01 DUP **Received:** 11/06/23 17:10
Matrix: Ground Water - Field Duplicate

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0339 U	pCi/L			1	0.604	12/12/23 14:33	PACE	904.0 903.0



ANALYTICAL RESULTS

Sample: GK00902-10
Name: EQUIPMENT BLANK 1
Matrix: DI Water - Equipment Blank

Sampled: 11/06/23 16:45
Received: 11/06/23 17:10

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Miscellaneous - Pace Analytical - Mt Juliet, Tn</u>									
Rad 226 and 228-Subcontract	0.846	pCi/L			1	0.48	12/12/23 14:33	PACE	904.0 903.0



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

A handwritten signature in black ink that reads "Diane Billings".

Certified by: Diane Billings, Project Manager



ANALYTICAL REPORT

November 30, 2023

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1673770
Samples Received: 11/03/2023
Project Number: GK00259
Description:
Site: 01
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

TABLE OF CONTENTS

Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	2 Tc
Ss: Sample Summary	3	3 Ss
Cn: Case Narrative	4	4 Cn
Sr: Sample Results	5	5 Sr
GK00259-01 L1673770-01	5	
GK00259-02 L1673770-02	6	
GK00259-03 L1673770-03	7	
GK00259-04 L1673770-04	8	
Qc: Quality Control Summary	9	6 Qc
Radiochemistry by Method 904/9320	9	
Radiochemistry by Method SM7500Ra B M	10	
Gl: Glossary of Terms	11	7 Gl
Al: Accreditations & Locations	12	8 Al
Sc: Sample Chain of Custody	13	9 Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

GK00259-01 L1673770-01 Non-Potable Water

Collected by Collected date/time Received date/time
11/01/23 11:33 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	Mt. Juliet, TN

¹Cp

GK00259-02 L1673770-02 Non-Potable Water

Collected by Collected date/time Received date/time
11/01/23 12:55 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	Mt. Juliet, TN

²Tc

GK00259-03 L1673770-03 Non-Potable Water

Collected by Collected date/time Received date/time
11/01/23 14:12 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	Mt. Juliet, TN

³Ss

GK00259-04 L1673770-04 Non-Potable Water

Collected by Collected date/time Received date/time
11/01/23 15:36 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	Mt. Juliet, TN

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]
Haley Torrence

Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

GK00259

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/01/23 11:33

L1673770

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	1.90		0.404		0.664		11/21/2023 14:19	WG2171834	2 Tc
(<i>T</i>) Barium	109				30.0-143		11/21/2023 14:19	WG2171834	3 Ss
(<i>T</i>) Yttrium	114				30.0-136		11/21/2023 14:19	WG2171834	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	2.75		0.519	0.699	11/21/2023 14:19	WG2166556	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	0.859		0.326	0.150	0.219	0.153	11/13/2023 17:48	WG2166556	8 Al
(<i>T</i>) Barium-133	89.5				30.0-143		11/13/2023 17:48	WG2166556	9 Sc

GK00259

APPENDIX A.

SAMPLE RESULTS - 02
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/01/23 12:55

L1673770

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	3.10		0.439		0.696		11/21/2023 14:19	WG2171834	2 Tc
(<i>T</i>) Barium	119				30.0-143		11/21/2023 14:19	WG2171834	3 Ss
(<i>T</i>) Yttrium	115				30.0-136		11/21/2023 14:19	WG2171834	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	4.06		0.558	0.713	11/21/2023 14:19	WG2166556	

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	6 Qc
RADIUM-226	0.952		0.345	0.159	0.155	0.125	11/13/2023 17:48	WG2166556	7 GI
(<i>T</i>) Barium-133	88.1				30.0-143		11/13/2023 17:48	WG2166556	8 Al

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

GK00259

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 Collected date/time: 11/01/23 14:13
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE RESULTS 03
 L1673770

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-228	0.449	J	0.299		0.515		11/21/2023 14:19	WG2171834
(T) Barium	111				30.0-143		11/21/2023 14:19	WG2171834
(T) Yttrium	99.4				30.0-136		11/21/2023 14:19	WG2171834

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	pCi/l	+ / -	pCi/l	date / time		
Combined Radium	0.982		0.382	0.531	11/21/2023 14:19	WG2166556

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-226	0.532	+ / -	0.238	0.107	0.130	0.106	11/13/2023 17:48	WG2166556
(T) Barium-133	86.8				30.0-143		11/13/2023 17:48	WG2166556

GK00259

APPENDIX A.

SAMPLE RESULTS - 04
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/01/23 15:36

L1673770

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	1.17		0.430		0.728		11/21/2023 14:19	WG2171834	2 Tc
(<i>T</i>) Barium	113				30.0-143		11/21/2023 14:19	WG2171834	3 Ss
(<i>T</i>) Yttrium	94.9				30.0-136		11/21/2023 14:19	WG2171834	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	pCi/l	+ / -	pCi/l	date / time		WG2166556	

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	6 Qc
RADIUM-226	0.555		0.248	0.114	0.136	0.110	11/13/2023 17:48	WG2166556	7 GI
(<i>T</i>) Barium-133	89.2				30.0-143		11/13/2023 17:48	WG2166556	8 Al

9 Sc

Method Blank (MB)

(MB) R4005417-1 11/21/23 14:19

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.406		0.184	0.315	
(T) Barium	89.6		89.6		
(T) Yttrium	109		109		

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1673770-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1673770-04 11/21/23 14:19 • (DUP) R4005417-5 11/21/23 14:19

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER 2.20	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-228	1.17	0.430	0.728		-0.0160	0.321	0.573		200	2.20	U	20	3
(T) Barium	113				105	105							
(T) Yttrium	94.9				118	118							

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4005417-2 11/21/23 14:19

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	5.54	111	80.0-120	
(T) Barium			120		
(T) Yttrium			119		

⁸Al

L1673772-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1673772-03 11/21/23 14:19 • (MS) R4005417-3 11/21/23 14:19 • (MSD) R4005417-4 11/21/23 14:19

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.591	16.6	18.0	96.0	104	1	70.0-130			7.86		20
(T) Barium		125		112	111								
(T) Yttrium		116		104	114								

⁹Sc

Method Blank (MB)

(MB) R4005932-1 11/13/23 17:48

Analyte	MB Result pCi/g	MB Qualifier + / -	MB 2 sigma CE pCi/g	MB MDA pCi/g	MB Lc pCi/g
Radium-226	0.00880	U	0.0323	0.0566	0.0350
(T) Barium-133	78.7		78.7		

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1673772-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1673772-03 11/13/23 17:48 • (DUP) R4005932-5 11/13/23 17:48

Analyte	Original Result pCi/g	Original 2 sigma CE + / -	Original MDA pCi/g	Original Lc pCi/g	DUP Result pCi/g	DUP 2 sigma CE + / -	DUP MDA pCi/g	DUP Lc pCi/g	DUP RPD %	DUP RER U	DUP RPD Limits %	DUP RER Limit 3
Radium-226	0.148	0.165	0.222	0.158	-0.107	0.210	0.429	0.269	200	0.956		
(T) Barium-133	86.7				67.6	67.6						

Laboratory Control Sample (LCS)

(LCS) R4005932-2 11/13/23 17:48

Analyte	Spike Amount pCi/g	LCS Result pCi/g	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.55	111	80.0-120	
(T) Barium-133			74.5		

L1664280-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-28 11/13/23 17:48 • (MS) R4005932-3 11/13/23 17:48 • (MSD) R4005932-4 11/13/23 17:48

Analyte	Spike Amount pCi/g	Original Result pCi/g	MS Result pCi/g	MSD Result pCi/g	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER 3.68	RPD Limits 20
Radium-226	20.0	1.15	24.3	25.2	116	120	1	75.0-125					
(T) Barium-133		63.1			70.0	57.1							

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ Al

⁹ Sc

SUBCONTRACT ORDER
Transfer Chain of Custody

A093

Pace Analytical Services, LLC

GK00259

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

U673770

Sample: GK00259-01

Name: AW-17

Sampled: 11/01/23 11:33

Matrix: Ground Water

Preservative: HNO3, pH <2

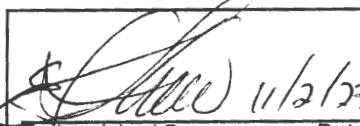
61

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/14/23 16:00	04/29/24 11:33	need Ra-226 , Ra-228, total combined and QC forms
Sample: GK00259-02			Sampled: 11/01/23 12:55
Name: AW-18			Matrix: Ground Water
			Preservative: HNO3, pH <2
			62
Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/14/23 16:00	04/29/24 12:55	need Ra-226 , Ra-228, total combined and QC forms
Sample: GK00259-03			Sampled: 11/01/23 14:12
Name: AW-19			Matrix: Ground Water
			Preservative: HNO3, pH <2
			53
Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/14/23 16:00	04/29/24 14:12	need Ra-226 , Ra-228, total combined and QC forms
Sample: GK00259-04			Sampled: 11/01/23 15:36
Name: AW-20			Matrix: Ground Water
			Preservative: HNO3, pH <2
			54
Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/14/23 16:00	04/29/24 15:36	need Ra-226 , Ra-228, total combined and QC forms

SUBCONTRACT ORDER
Transfer Chain of Custody**Pace Analytical Services, LLC****GK00259**PH-10BDH4321 TRM-252362
CR6-20221V12.230:12.2 Dp
12.2 As

Sample Receipt Checklist		If Applicable
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	VOA Zero Headspace:
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Pres. Correct/Check:
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
RA Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

703 7808 0285 Please email results to Diane Billings at diane.billings@pacelabs.comDate Shipped: 11/2/23 Total # of Containers: 4 Sample Origin (State): IL PO #: _____Turn-Around Time Requested NORMAL RUSH Date Results Needed: _____

	<u>11/2/23/2023</u>		<u>11/3/23 9:00</u>	Sample Temperature Upon Receipt	_____ °C
Relinquished By	Date/Time	Received By	Date/Time	Sample(s) Received on Ice	Y or N
				Proper Bottles Received in Good Condition	Y or N
				Bottles Filled with Adequate Volume	Y or N
				Samples Received Within Hold Time	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or N

ANALYTICAL REPORT

December 04, 2023

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1674446

Samples Received: 11/06/2023

Project Number: GK00479

Description:

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Cp: Cover Page

Tc: Table of Contents

Ss: Sample Summary

Cn: Case Narrative

Sr: Sample Results

GK00479-01 L1674446-01

GK00479-02 L1674446-02

GK00479-03 L1674446-03

GK00479-04 L1674446-04

GK00479-05 L1674446-05

GK00479-06 L1674446-06

Qc: Quality Control Summary

Radiochemistry by Method 904/9320

Radiochemistry by Method SM7500Ra B M

Gl: Glossary of Terms

Al: Accreditations & Locations

Sc: Sample Chain of Custody

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

GK00479-01 L1674446-01 Non-Potable Water

Collected by Collected date/time Received date/time
11/02/23 13:19 11/06/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2173611	1	11/17/23 23:39	11/22/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2169128	1	11/14/23 12:16	11/22/23 21:28	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2169128	1	11/14/23 12:16	11/16/23 12:04	RRE	Mt. Juliet, TN

¹Cp

GK00479-02 L1674446-02 Non-Potable Water

Collected by Collected date/time Received date/time
11/02/23 14:31 11/06/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2173611	1	11/17/23 23:39	11/22/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2169128	1	11/14/23 12:16	11/22/23 21:28	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2169128	1	11/14/23 12:16	11/16/23 12:04	RRE	Mt. Juliet, TN

²Tc

GK00479-03 L1674446-03 Non-Potable Water

Collected by Collected date/time Received date/time
11/02/23 13:38 11/06/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2173611	1	11/17/23 23:39	11/22/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2169128	1	11/14/23 12:16	11/22/23 21:28	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2169128	1	11/14/23 12:16	11/16/23 12:04	RRE	Mt. Juliet, TN

³Ss

GK00479-04 L1674446-04 Non-Potable Water

Collected by Collected date/time Received date/time
11/02/23 13:10 11/06/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2173611	1	11/17/23 23:39	11/22/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2169128	1	11/14/23 12:16	11/22/23 21:28	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2169128	1	11/14/23 12:16	11/16/23 12:04	RRE	Mt. Juliet, TN

⁴Cn

GK00479-05 L1674446-05 Non-Potable Water

Collected by Collected date/time Received date/time
11/02/23 13:15 11/06/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2173611	1	11/17/23 23:39	11/22/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2169128	1	11/14/23 12:16	11/22/23 21:28	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2169128	1	11/14/23 12:16	11/16/23 12:04	RRE	Mt. Juliet, TN

⁵Sr

GK00479-06 L1674446-06 Non-Potable Water

Collected by Collected date/time Received date/time
11/02/23 13:38 11/06/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2173611	1	11/17/23 23:39	11/22/23 21:28	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2169128	1	11/14/23 12:16	11/22/23 21:28	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2169128	1	11/14/23 12:16	11/16/23 12:04	RRE	Mt. Juliet, TN

⁶Qc

⁷Gl

⁸Al

⁹Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]
Haley Torrence

Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

GK00479

SAMPLE RESULTS 01

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Collected date/time: 11/02/23 12:19

L1674446

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
RADIUM-228	3.48		0.379		0.553		11/22/2023 21:28	WG2173611
(<i>T</i>) Barium	105				30.0-143		11/22/2023 21:28	WG2173611
(<i>T</i>) Yttrium	101				30.0-136		11/22/2023 21:28	WG2173611

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
Combined Radium	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	5.52		0.656	0.628	11/22/2023 21:28	WG2169128

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
RADIUM-226	2.05		0.536	0.233	0.298	0.200	11/16/2023 12:04	WG2169128
(<i>T</i>) Barium-133	81.9				30.0-143		11/16/2023 12:04	WG2169128

GK00479

APPENDIX A.

SAMPLE RESULTS - 02
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/02/23 11:21

L1674446

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
	pCi/l	+ / -	+ / -	pCi/l	pCi/l		date / time		
RADIUM-228	1.41		0.252		0.396		11/22/2023 21:28	WG2173611	2 Tc
(<i>T</i>) Barium	110				30.0-143		11/22/2023 21:28	WG2173611	
(<i>T</i>) Yttrium	105				30.0-136		11/22/2023 21:28	WG2173611	3 Ss

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	4 Cn
	pCi/l	+ / -	pCi/l		date / time		
Combined Radium	1.70		0.368	0.511	11/22/2023 21:28	WG2169128	5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	6 Qc
	pCi/l	+ / -	+ / -	pCi/l	pCi/l		date / time		
RADIUM-226	0.290	J	0.268	0.0805	0.323	0.234	11/16/2023 12:04	WG2169128	7 GI
(<i>T</i>) Barium-133	61.6				30.0-143		11/16/2023 12:04	WG2169128	8 Al

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

GK00479

SAMPLE RESULTS 03

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

L1674446

Collected date/time: 11/02/23 12:28
EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l	+ / -	+ / -	pCi/l	pCi/l		date / time	
RADIUM-228	1.90		0.378		0.602		11/22/2023 21:28	WG2173611
(<i>T</i>) Barium	100				30.0-143		11/22/2023 21:28	WG2173611
(<i>T</i>) Yttrium	101				30.0-136		11/22/2023 21:28	WG2173611

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l	+ / -		pCi/l	date / time	
Combined Radium	3.93		0.634	0.657	11/22/2023 21:28	WG2169128

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l	+ / -	+ / -	pCi/l	pCi/l		date / time	
RADIUM-226	2.04		0.509	0.236	0.264	0.179	11/16/2023 12:04	WG2169128
(<i>T</i>) Barium-133	84.9				30.0-143		11/16/2023 12:04	WG2169128

GK00479

APPENDIX A.

SAMPLE RESULTS - 04
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/02/23 12:10

L1674446

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	1.05		0.309		0.505		11/22/2023 21:28	WG2173611	2 Tc
(<i>T</i>) Barium	107				30.0-143		11/22/2023 21:28	WG2173611	3 Ss
(<i>T</i>) Yttrium	102				30.0-136		11/22/2023 21:28	WG2173611	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	1.26		0.354	0.537	11/22/2023 21:28	WG2169128	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	0.216		0.173	0.0662	0.184	0.137	11/16/2023 12:04	WG2169128	8 Al
(<i>T</i>) Barium-133	77.4				30.0-143		11/16/2023 12:04	WG2169128	9 Sc

GK00479

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 Collected date/time: 11/02/23 12:15
EDWARDS POWER PLANT, ASH POND

SAMPLE RESULTS -05

L1674446

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-228	1.04		0.329		0.542		11/22/2023 21:28	WG2173611
(<i>T</i>) Barium	117				30.0-143		11/22/2023 21:28	WG2173611
(<i>T</i>) Yttrium	99.5				30.0-136		11/22/2023 21:28	WG2173611

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc**Radiochemistry by Method Calculation**

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	1.04		0.338	0.593	11/22/2023 21:28	WG2169128

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-226	-0.0535	U	0.0793	0.0171	0.241	0.166	11/16/2023 12:04	WG2169128
(<i>T</i>) Barium-133	84.2				30.0-143		11/16/2023 12:04	WG2169128

GK00479

SAMPLE RESULTS 06

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Collected date/time: 11/02/23 12:28

L1674446

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l	+ / -	+ / -	pCi/l	pCi/l	date / time		
RADIUM-228	2.24		0.419		0.667		11/22/2023 21:28	<u>WG2173611</u>
(<i>T</i>) Barium	115				30.0-143		11/22/2023 21:28	<u>WG2173611</u>
(<i>T</i>) Yttrium	98.8				30.0-136		11/22/2023 21:28	<u>WG2173611</u>

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l	+ / -	pCi/l	date / time		
Combined Radium	4.60		0.752	0.749	11/22/2023 21:28	<u>WG2169128</u>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l	+ / -	+ / -	pCi/l	pCi/l	date / time		
RADIUM-226	2.36		0.625	0.253	0.341	0.231	11/16/2023 12:04	<u>WG2169128</u>
(<i>T</i>) Barium-133	76.6				30.0-143		11/16/2023 12:04	<u>WG2169128</u>

EDWARDS POWER PLANT, ASH POND
EDW-257-301

Method Blank (MB)

(MB) R4005431-1 11/22/23 21:28

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l	¹ Cp
Radium-228	0.205	J	0.157	0.267		² Tc
(T) Barium	113		113			³ Ss
(T) Yttrium	99.8		99.8			⁴ Cn

L1674446-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1674446-04 11/22/23 21:28 • (DUP) R4005431-5 11/22/23 21:28

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit	⁵ Sr
Radium-228	1.05	0.309	0.505		1.55	0.414	0.676		38.8	0.976		20	3	⁶ Qc
(T) Barium	107				104	104								⁷ Gl
(T) Yttrium	102				105	105								⁸ Al

Laboratory Control Sample (LCS)

(LCS) R4005431-2 11/22/23 21:28

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	⁹ Sc
Radium-228	5.00	5.10	102	80.0-120		
(T) Barium			122			
(T) Yttrium			98.7			

L1674446-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674446-05 11/22/23 21:28 • (MS) R4005431-3 11/22/23 21:28 • (MSD) R4005431-4 11/22/23 21:28

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %	¹ Cp
Radium-228	16.7	1.04	16.7	15.7	93.9	87.5	1	70.0-130		6.55		20	² Tc
(T) Barium		117		121	119								³ Ss
(T) Yttrium		99.5		101	100								⁴ Cn

Method Blank (MB)

(MB) R4007716-1 11/16/23 12:04

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.000	<u>U</u>	0.0407	0.0795	0.0525
(T) Barium-133	81.6		81.6		

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1674446-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1674446-04 11/16/23 12:04 • (DUP) R4007716-5 11/16/23 12:04

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER %	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-226	0.216	0.173	0.184	0.137	0.517	0.351	0.414	0.259	82.1	0.768		20	3
(T) Barium-133	77.4				70.2	70.2							

Laboratory Control Sample (LCS)

(LCS) R4007716-2 11/16/23 12:04

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-226	5.00	5.04	101	80.0-120	
(T) Barium-133			75.1		

L1664280-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-36 11/16/23 12:04 • (MS) R4007716-3 11/16/23 12:04 • (MSD) R4007716-4 11/16/23 12:04

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER %	RPD Limits %
Radium-226	20.0	0.603	20.6	20.3	99.8	98.7	1	75.0-125			1.12		20
(T) Barium-133		68.9			60.8	51.7							

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ Al

⁹ Sc

SUBCONTRACT ORDER
Transfer Chain of Custody

C023

Pace Analytical Services, LLC

GK00479

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1674446

Sample: GK00479-01
Name: AW-15

Sampled: 11/02/23 13:19
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/15/23 16:00	04/30/24 13:19	need Ra-226 , Ra-228, total combined and QC forms
Sample: GK00479-02 Name: AW-15S			Sampled: 11/02/23 14:31 Matrix: Ground Water Preservative: HNO3, pH <2
			-02
Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/15/23 16:00	04/30/24 14:31	need Ra-226 , Ra-228, total combined and QC forms
Sample: GK00479-03 Name: AW-16			Sampled: 11/02/23 13:38 Matrix: Ground Water Preservative: HNO3, pH <2
			-03
Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/15/23 16:00	04/30/24 13:38	need Ra-226 , Ra-228, total combined and QC forms
Sample: GK00479-04 Name: AW-21			Sampled: 11/02/23 13:10 Matrix: Ground Water Preservative: HNO3, pH <2
			-04
Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/15/23 16:00	04/30/24 13:10	need Ra-226 , Ra-228, total combined and QC forms

SUBCONTRACT ORDER
Transfer Chain of CustodyPace Analytical Services, LLC
GK00479**SENDING LABORATORY**

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GK00479-05

Name: FIELD BLANK

Sampled: 11/02/23 13:15

Matrix: DI Water

Preservative: HNO3, pH <2

-05

Analysis**Due****Expires****Comments**

01-Radium 226/228 combined

11/15/23 16:00

04/30/24 13:15

need Ra-226 , Ra-228, total combined and QC forms

Sample: GK00479-06

Name: AW-16 FD

Sampled: 11/02/23 13:38

Matrix: Ground Water

Preservative: HNO3, pH <2

-06

Analysis**Due****Expires****Comments**

01-Radium 226/228 combined

11/15/23 16:00

04/30/24 13:38

need Ra-226 , Ra-228, total combined and QC forms

TDA519-6+0 = 19.6

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RA Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VQA Zero Headspace:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Pres. Correct/Check:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

700378080767

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 11/3/23Total # of Containers: 6Sample Origin (State): IL

PO #: _____

Turn-Around Time Requested NORMAL RUSH

Date Results Needed: _____

11/3/23

Received By

Date/Time

Relinquished By

Sample Temperature Upon Receipt	_____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

Relinquished By

Date/Time

Received By

Date/Time

ANALYTICAL REPORT

December 14, 2023

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group: L1676548

Samples Received: 11/09/2023

Project Number: GK00657

Description:

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

TABLE OF CONTENTS

Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	2 Tc
Ss: Sample Summary	3	3 Ss
Cn: Case Narrative	4	4 Cn
Sr: Sample Results	5	5 Sr
GK00657-01 L1676548-01	5	
GK00657-02 L1676548-02	6	
GK00657-03 L1676548-03	7	
GK00657-04 L1676548-04	8	
GK00657-05 L1676548-05	9	
Qc: Quality Control Summary	10	6 Qc
Radiochemistry by Method 904/9320	10	
Radiochemistry by Method SM7500Ra B M	11	
Gl: Glossary of Terms	12	7 Gl
Al: Accreditations & Locations	13	8 Al
Sc: Sample Chain of Custody	14	9 Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

GK00657-01 L1676548-01 Non-Potable Water

Collected by Collected date/time Received date/time
11/03/23 13:20 11/09/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN

¹Cp

GK00657-02 L1676548-02 Non-Potable Water

Collected by Collected date/time Received date/time
11/03/23 14:10 11/09/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN

²Tc

GK00657-03 L1676548-03 Non-Potable Water

Collected by Collected date/time Received date/time
11/03/23 13:14 11/09/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN

³Ss

GK00657-04 L1676548-04 Non-Potable Water

Collected by Collected date/time Received date/time
11/03/23 11:30 11/09/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN

⁴Cn

GK00657-05 L1676548-05 Non-Potable Water

Collected by Collected date/time Received date/time
11/03/23 11:43 11/09/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]
Haley Torrence

Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ Al
- ⁹ SC

Report Revision History

Level II Report - Version 1: 12/13/23 15:13

Project Narrative

GK00657

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

L1676548

Collected date/time: 11/03/23 12:20

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	0.799		0.227		0.378		12/01/2023 21:21	WG2178189	2 Tc
(<i>T</i>) Barium	104					30.0-143	12/01/2023 21:21	WG2178189	3 Ss
(<i>T</i>) Yttrium	107					30.0-136	12/01/2023 21:21	WG2178189	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	1.02		0.347	0.523	12/12/2023 14:33	WG2172482	

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	6 Qc
RADIUM-226	0.222	J	0.262	0.102	0.362	0.243	12/12/2023 14:33	WG2172482	7 GI
(<i>T</i>) Barium-133	85.1					30.0-143	12/12/2023 14:33	WG2172482	8 Al

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

GK00657

APPENDIX A.

SAMPLE RESULTS 02
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/03/23 11:10

L1676548

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	0.681		0.258		0.439		12/01/2023 21:21	WG2178189	2 Tc
(<i>T</i>) Barium	128				30.0-143		12/01/2023 21:21	WG2178189	3 Ss
(<i>T</i>) Yttrium	113				30.0-136		12/01/2023 21:21	WG2178189	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	1.94		0.542	0.533	12/12/2023 14:33	WG2172482	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	1.25		0.477	0.211	0.303	0.217	12/12/2023 14:33	WG2172482	8 Al
(<i>T</i>) Barium-133	86.0				30.0-143		12/12/2023 14:33	WG2172482	9 Sc

GK00657

APPENDIX A.

SAMPLE RESULTS 03
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/03/23 12:14

L1676548

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	1.52		0.355		0.585		12/01/2023 21:21	WG2178189	2 Tc
(<i>T</i>) Barium	121				30.0-143		12/01/2023 21:21	WG2178189	3 Ss
(<i>T</i>) Yttrium	109				30.0-136		12/01/2023 21:21	WG2178189	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	1.87		0.457	0.679	12/12/2023 14:33	WG2172482	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	0.351		0.288	0.117	0.345	0.230	12/12/2023 14:33	WG2172482	8 Al
(<i>T</i>) Barium-133	85.8				30.0-143		12/12/2023 14:33	WG2172482	9 Sc

GK00657

APPENDIX A.

SAMPLE RESULTS 04
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/03/23 11:30

L1676548

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	1.27		0.479		0.812		12/01/2023 21:21	WG2178189	2 Tc
(<i>T</i>) Barium	116				30.0-143		12/01/2023 21:21	WG2178189	3 Ss
(<i>T</i>) Yttrium	116				30.0-136		12/01/2023 21:21	WG2178189	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	1.85		0.562	0.852	12/12/2023 14:33	WG2172482	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	0.583		0.293	0.136	0.259	0.176	12/12/2023 14:33	WG2172482	8 Al
(<i>T</i>) Barium-133	93.4				30.0-143		12/12/2023 14:33	WG2172482	9 Sc

GK00657

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/03/23 11:13

L1676548

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	0.137	<u>U</u>	0.203		0.360		12/01/2023 21:21	<u>WG2178189</u>	2 Tc
(<i>T</i>) Barium	109					30.0-143	12/01/2023 21:21	<u>WG2178189</u>	3 Ss
(<i>T</i>) Yttrium	107					30.0-136	12/01/2023 21:21	<u>WG2178189</u>	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	0.519		0.329	0.439	12/12/2023 14:33	<u>WG2172482</u>	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	0.382		0.259	0.109	0.252	0.183	12/12/2023 14:33	<u>WG2172482</u>	8 Al
(<i>T</i>) Barium-133	84.7					30.0-143	12/12/2023 14:33	<u>WG2172482</u>	9 Sc

WG217839

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Radiochemistry
EDWARDS POWER PLANT, ASH POND
EDW-257-301

QUALITY CONTROL SUMMARY

[L1676548-01,02,03,04,05](#)

Method Blank (MB)

(MB) R4010971-1 12/01/23 21:21

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.292	J	0.189	0.328	
(T) Barium	79.5		79.5		
(T) Yttrium	100		100		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

L1671061-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671061-01 12/01/23 21:21 • (DUP) R4010971-5 12/01/23 21:21

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER 0.0655	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-228	0.806	0.364	0.630		0.846	0.500	0.862		4.90		J	20	3
(T) Barium	81.5				81.6	81.6							
(T) Yttrium	95.8				99.3	99.3							

9 Sc

Laboratory Control Sample (LCS)

(LCS) R4010971-2 12/01/23 21:21

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	4.05	81.0	80.0-120	
(T) Barium			78.1		
(T) Yttrium			79.4		

10 Al

L1671399-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671399-01 12/01/23 21:21 • (MS) R4010971-3 12/01/23 21:21 • (MSD) R4010971-4 12/01/23 21:21

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-228	10.0	4.31	11.6	12.1	72.5	78.1	1	70.0-130			4.73		20
(T) Barium		82.5		83.5	82.8								
(T) Yttrium		109		102	101								

11 Sc

12 Sr

13 Ba

14 Ce

15 La

WG2172482

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 Radiochemist: **Method Blank (MB)**
EDWARDS POWER PLANT, ASH POND
EDW-257-301

QUALITY CONTROL SUMMARY[L1676548-01,02,03,04,05](#)**Method Blank (MB)**

(MB) R4011543-2 12/12/23 14:33

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0186	U	0.0477	0.0843	0.0596
(T) Barium-133	75.3		75.3		

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc**L1676546-10 Original Sample (OS) • Duplicate (DUP)**

(OS) L1676546-10 12/12/23 14:33 • (DUP) R4011543-5 12/12/23 14:33

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER U	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.541	0.309	0.272	0.195	0.0424	0.152	0.267	0.179	171	1.45		20	3
(T) Barium-133	97.6				99.4	99.4							

Laboratory Control Sample (LCS)

(LCS) R4011543-1 12/12/23 10:46

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.69	114	80.0-120	
(T) Barium-133			66.6		

L1676548-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676548-05 12/12/23 14:33 • (MS) R4011543-3 12/12/23 14:33 • (MSD) R4011543-4 12/12/23 14:33

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.382	21.4	23.1	105	113	1	75.0-125			7.70		20
(T) Barium-133		84.7		83.3	72.2								

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ Al

⁹ Sc

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GK00657

A060

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

U1676548

Sample: GK00657-01
Name: AP07S

Sampled: 11/03/23 13:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/16/23 16:00	05/01/24 13:20	need Ra-226 , Ra-228, total combined and QC forms

Sample: GK00657-02
Name: AW-11

Sampled: 11/03/23 14:10
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/16/23 16:00	05/01/24 14:10	need Ra-226 , Ra-228, total combined and QC forms

Sample: GK00657-03
Name: AW-14

Sampled: 11/03/23 13:14
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/16/23 16:00	05/01/24 13:14	need Ra-226 , Ra-228, total combined and QC forms

Sample: GK00657-04
Name: AW-23

Sampled: 11/03/23 11:00
Matrix: Ground Water
Preservative: HNO3, pH <2

11:30
-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/16/23 16:00	05/01/24 11:00	need Ra-226 , Ra-228, total combined and QC forms

PH-1080H4321 TRC-2362362
CR8-20221V

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
GK00657

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

11670548
12/13/23 11:03 143
F 05

Sample: GK00657-05
Name: EMW-05

Sampled: 11/03/23 11:03
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/16/23 16:00	05/01/24 11:03	need Ra-226 , Ra-228, total combined and QC forms

7003 7808 3354

18.1±0 = 18.1 MS
A8

Sample Receipt Checklist
If Applicable
COC Seal Present/Intact:
COC Signed/Accurate:
Bottles arrive intact:
Correct bottles used:
Sufficient volume sent:
RA Screen <0.5 mR/hr:

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 11/8/23

Total # of Containers: 5

Sample Origin (State): IL

PO #: _____

Turn-Around Time Requested

NORMAL RUSH

Date Results Needed: _____

Submitted By	11/8/23 11:00	Received By	11/9/23 9:00	Sample Temperature Upon Receipt	°C
Reinforced By	Date/Time	Received By	Date/Time	Sample(s) Received on Ice	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Proper Bottles Received in Good Condition	Y or N
				Bottles Filled with Adequate Volume	Y or N
				Samples Received Within Hold Time	Y or N
				Date/Time Taken From Sample Bottle	Y or N

ANALYTICAL REPORT

December 13, 2023

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1676546

Samples Received: 11/09/2023

Project Number: GK00902

Description:

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

60

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Cp: Cover Page

Tc: Table of Contents

1

1 Cp

Ss: Sample Summary

2

2 Tc

Cn: Case Narrative

5

3 Ss

Sr: Sample Results

6

4 Cn

GK00902-01 L1676546-01

6

5 Sr

GK00902-02 L1676546-02

7

6 Qc

GK00902-03 L1676546-03

8

7 GI

GK00902-04 L1676546-04

9

8 Al

GK00902-05 L1676546-05

10

9 Sc

GK00902-06 L1676546-06

11

GK00902-07 L1676546-07

12

GK00902-08 L1676546-08

13

GK00902-09 L1676546-09

14

GK00902-10 L1676546-10

15

Qc: Quality Control Summary

16

Radiochemistry by Method 904/9320

16

Radiochemistry by Method SM7500Ra B M

19

Gl: Glossary of Terms

20

Al: Accreditations & Locations

21

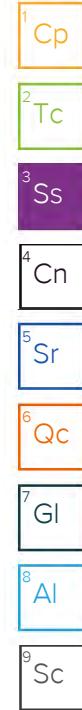
Sc: Sample Chain of Custody

22

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

				Collected by	Collected date/time	Received date/time
					11/06/23 11:00	11/09/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2176321	1	11/22/23 14:02	11/28/23 20:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
GK00902-01 L1676546-01 Non-Potable Water				Collected by	Collected date/time	Received date/time
					11/06/23 12:10	11/09/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2176321	1	11/22/23 14:02	11/28/23 20:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
GK00902-02 L1676546-02 Non-Potable Water				Collected by	Collected date/time	Received date/time
					11/06/23 14:40	11/09/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2176321	1	11/22/23 14:02	11/28/23 20:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
GK00902-03 L1676546-03 Non-Potable Water				Collected by	Collected date/time	Received date/time
					11/06/23 15:47	11/09/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
GK00902-04 L1676546-04 Non-Potable Water				Collected by	Collected date/time	Received date/time
					11/06/23 12:50	11/09/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
GK00902-05 L1676546-05 Non-Potable Water				Collected by	Collected date/time	Received date/time
					11/06/23 16:13	11/09/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
GK00902-06 L1676546-06 Non-Potable Water				Collected by	Collected date/time	Received date/time
					11/06/23 16:13	11/09/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178796	1	11/28/23 17:54	12/04/23 19:53	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

SAMPLE SUMMARY

GK00902-07 L1676546-07 Non-Potable Water			Collected by	Collected date/time	Received date/time	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN

GK00902-08 L1676546-08 Non-Potable Water			Collected by	Collected date/time	Received date/time	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178189	1	11/27/23 18:36	12/01/23 21:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN

GK00902-09 L1676546-09 Non-Potable Water			Collected by	Collected date/time	Received date/time	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178796	1	11/28/23 17:54	12/04/23 19:53	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN

GK00902-10 L1676546-10 Non-Potable Water			Collected by	Collected date/time	Received date/time	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2178796	1	11/28/23 17:54	12/04/23 19:53	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2172482	1	11/17/23 18:10	12/12/23 14:33	RGT	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gi
8 Al
9 Sc

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]
Haley Torrence

Haley Torrence
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ Al
- ⁹ Sc

GK00902

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/06/23 11:00

L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	1.51		0.431		0.761		11/28/2023 20:05	WG2176321	2 Tc
(<i>T</i>) Barium	113				30.0-143		11/28/2023 20:05	WG2176321	3 Ss
(<i>T</i>) Yttrium	119				30.0-136		11/28/2023 20:05	WG2176321	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	3.94		0.838	0.861	12/12/2023 14:33	WG2172482	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	2.43		0.719	0.239	0.403	0.279	12/12/2023 14:33	WG2172482	8 Al
(<i>T</i>) Barium-133	62.9				30.0-143		12/12/2023 14:33	WG2172482	9 Sc

GK00902

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/06/23 12:10

L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	2.51		0.432		0.738		11/28/2023 20:05	WG2176321	2 Tc
(<i>T</i>) Barium	115				30.0-143		11/28/2023 20:05	WG2176321	3 Ss
(<i>T</i>) Yttrium	120				30.0-136		11/28/2023 20:05	WG2176321	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	3.70		0.619	0.780	12/12/2023 14:33	WG2172482	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	1.19		0.443	0.199	0.253	0.188	12/12/2023 14:33	WG2172482	8 Al
(<i>T</i>) Barium-133	87.0				30.0-143		12/12/2023 14:33	WG2172482	9 Sc

GK00902-03

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/06/23 14:00

L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	4.46		0.417		0.652		11/28/2023 20:05	WG2176321	2 Tc
(<i>T</i>) Barium	125				30.0-143		11/28/2023 20:05	WG2176321	3 Ss
(<i>T</i>) Yttrium	119				30.0-136		11/28/2023 20:05	WG2176321	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	pCi/l	+ / -	pCi/l	date / time			
Combined Radium	4.72		0.467	0.694	12/12/2023 14:33	WG2172482	

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	6 Qc
RADIUM-226	pCi/l	+ / -	pCi/l	date / time					7 GI
(<i>T</i>) Barium-133	0.251		0.211	0.0899	0.237	0.173	12/12/2023 14:33	WG2172482	8 Al
(<i>T</i>) Barium-133	86.9				30.0-143		12/12/2023 14:33	WG2172482	9 Sc

GK00902-04

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/06/23 15:07

L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.195	J	0.239		0.420		12/01/2023 21:21	WG2178189
(T) Barium	102				30.0-143		12/01/2023 21:21	WG2178189
(T) Yttrium	101				30.0-136		12/01/2023 21:21	WG2178189

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.465	J	0.323	0.480	12/12/2023 14:33	WG2172482

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.270		0.218	0.103	0.233	0.173	12/12/2023 14:33	WG2172482
(T) Barium-133	95.1				30.0-143		12/12/2023 14:33	WG2172482

GK00902-05

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/06/23 12:00

L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	-0.382	<u>U</u>	0.219		0.405		12/01/2023 21:21	<u>WG2178189</u>	2 Tc
(<i>T</i>) Barium	99.5					30.0-143	12/01/2023 21:21	<u>WG2178189</u>	3 Ss
(<i>T</i>) Yttrium	104					30.0-136	12/01/2023 21:21	<u>WG2178189</u>	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	0.785		0.384	0.438	12/12/2023 14:33	<u>WG2172482</u>	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	0.785		0.315	0.147	0.168	0.132	12/12/2023 14:33	<u>WG2172482</u>	8 Al
(<i>T</i>) Barium-133	90.3					30.0-143	12/12/2023 14:33	<u>WG2172482</u>	9 Sc

GK00902-06

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/06/23 16:13

L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l	+ / -	+ / -	pCi/l	pCi/l	date / time		
RADIUM-228	12.0		0.697		0.898		12/04/2023 19:53	WG2178796
(<i>T</i>) Barium	135				30.0-143		12/04/2023 19:53	WG2178796
(<i>T</i>) Yttrium	128				30.0-136		12/04/2023 19:53	WG2178796

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l	+ / -		pCi/l	date / time	
Combined Radium	29.1		2.68	1.29	12/12/2023 14:33	WG2172482

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l	+ / -	+ / -	pCi/l	pCi/l	date / time		
RADIUM-226	17.1		2.59	1.23	0.933	0.616	12/12/2023 14:33	WG2172482
(<i>T</i>) Barium-133	82.9				30.0-143		12/12/2023 14:33	WG2172482

GK00902

APPENDIX A.

SAMPLE RESULTS 07
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/06/23 11:15

L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	0.328	J	0.216		0.376		12/01/2023 21:21	WG2178189	2 Tc
(T) Barium	115				30.0-143		12/01/2023 21:21	WG2178189	3 Ss
(T) Yttrium	102				30.0-136		12/01/2023 21:21	WG2178189	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	1.35		0.565	0.565	12/12/2023 14:33	WG2172482	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	1.02		0.522	0.148	0.422	0.302	12/12/2023 14:33	WG2172482	8 Al
(T) Barium-133	56.4				30.0-143		12/12/2023 14:33	WG2172482	9 Sc

GK00902

APPENDIX A.

SAMPLE RESULTS 08
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Collected date/time: 11/06/23 11:00
L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	2.39		0.636		1.06		12/01/2023 21:21	WG2178189	2 Tc
(<i>T</i>) Barium	118				30.0-143		12/01/2023 21:21	WG2178189	3 Ss
(<i>T</i>) Yttrium	103				30.0-136		12/01/2023 21:21	WG2178189	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	3.58		0.823	1.15	12/12/2023 14:33	WG2172482	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	1.20		0.522	0.209	0.442	0.293	12/12/2023 14:33	WG2172482	8 Al
(<i>T</i>) Barium-133	79.8				30.0-143		12/12/2023 14:33	WG2172482	9 Sc

GK00902

APPENDIX A.

SAMPLE RESULTS - 09
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/06/23 14:00

L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	-0.315	<u>U</u>	0.264		0.489		12/04/2023 19:53	<u>WG2178796</u>	2 Tc
(<i>T</i>) Barium	103					30.0-143	12/04/2023 19:53	<u>WG2178796</u>	3 Ss
(<i>T</i>) Yttrium	117					30.0-136	12/04/2023 19:53	<u>WG2178796</u>	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	0.0339	<u>U</u>	0.325	0.604	12/12/2023 14:33	<u>WG2172482</u>	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	0.0339	<u>U</u>	0.189	0.0707	0.354	0.241	12/12/2023 14:33	<u>WG2172482</u>	8 Al
(<i>T</i>) Barium-133	89.9					30.0-143	12/12/2023 14:33	<u>WG2172482</u>	9 Sc

GK00902

APPENDIX A.

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Collected date/time: 11/06/23 16:45

L1676546

EDWARDS POWER PLANT, ASH POND

EDW-257-301

SAMPLE RESULTS 10

Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	1 Cp
RADIUM-228	0.305	J	0.221		0.395		12/04/2023 19:53	WG2178796	2 Tc
(<i>T</i>) Barium	111					30.0-143	12/04/2023 19:53	WG2178796	3 Ss
(<i>T</i>) Yttrium	138	C1				30.0-136	12/04/2023 19:53	WG2178796	4 Cn

Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>	5 Sr
Combined Radium	0.846		0.380	0.480	12/12/2023 14:33	WG2172482	6 Qc

Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>	7 GI
RADIUM-226	0.541		0.309	0.152	0.272	0.195	12/12/2023 14:33	WG2172482	8 Al
(<i>T</i>) Barium-133	97.6					30.0-143	12/12/2023 14:33	WG2172482	9 Sc

Method Blank (MB)

(MB) R4009589-1 12/01/23 17:38

1 Cp

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.329		0.147	0.257	
(T) Barium	104		104		
(T) Yttrium	96.3		96.3		

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1670483-33 Original Sample (OS) • Duplicate (DUP)

(OS) L1670483-33 12/01/23 17:38 • (DUP) R4009589-5 12/01/23 17:38

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER 0.774	DUP Qualifier	DUP RPD Limits %	DUP RER Limit 3
Radium-228	0.501	0.360	0.638		0.902	0.373	0.650		57.2			20	
(T) Barium	103				104	104							
(T) Yttrium	102				106	106							

Laboratory Control Sample (LCS)

(LCS) R4009589-2 12/01/23 17:38

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.29	85.8	80.0-120	
(T) Barium		107			
(T) Yttrium		101			

L1672385-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1672385-10 11/28/23 20:05 • (MS) R4009589-3 12/01/23 17:38 • (MSD) R4009589-4 12/01/23 17:38

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	2.91	14.0	15.1	66.5	73.1	1	70.0-130	J6		7.62		20
(T) Barium		123		109	112								
(T) Yttrium		118		99.4	107								

Method Blank (MB)

(MB) R4010971-1 12/01/23 21:21

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.292	J	0.189	0.328	
(T) Barium	79.5		79.5		
(T) Yttrium	100		100		

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al

L1671061-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671061-01 12/01/23 21:21 • (DUP) R4010971-5 12/01/23 21:21

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER 0.0655	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-228	0.806	0.364	0.630		0.846	0.500	0.862		4.90		J	20	3
(T) Barium	81.5				81.6	81.6							
(T) Yttrium	95.8				99.3	99.3							

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4010971-2 12/01/23 21:21

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	4.05	81.0	80.0-120	
(T) Barium			78.1		
(T) Yttrium			79.4		

⁸Al

L1671399-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671399-01 12/01/23 21:21 • (MS) R4010971-3 12/01/23 21:21 • (MSD) R4010971-4 12/01/23 21:21

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-228	10.0	4.31	11.6	12.1	72.5	78.1	1	70.0-130			4.73		20
(T) Barium		82.5			83.5	82.8							
(T) Yttrium		109			102	101							

⁹Sc

WG2178790

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORTRadiochemists: Mark Powers
EDWARDS POWER PLANT, ASH POND
EDW-257-301

QUALITY CONTROL SUMMARY

L1676546-06,09,10

Method Blank (MB)

(MB) R4010925-1 12/04/23 19:53

1 Cp

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.445		0.147	0.254	
(T) Barium	106		106		
(T) Yttrium	135		135		

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1676546-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1676546-10 12/04/23 19:53 • (DUP) R4010925-5 12/04/23 19:53

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER 0.0990	DUP Qualifier U	DUP RPD Limits %	DUP RER Limit 3
Radium-228	0.305	0.221	0.395		0.261	0.381	0.685		15.4			20	
(T) Barium	111				111	111							
(T) Yttrium	138				130	130							

Laboratory Control Sample (LCS)

(LCS) R4010925-2 12/04/23 19:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.05	81.0	80.0-120	
(T) Barium			109		
(T) Yttrium			118		

L1671399-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671399-09 12/04/23 19:53 • (MS) R4010925-3 12/04/23 19:53 • (MSD) R4010925-4 12/04/23 19:53

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.37	8.38	8.76	70.2	74.0	1	70.0-130			4.44		20
(T) Barium		109		110	113								
(T) Yttrium		152		107	122								

WG2172482

APENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
Radiochemist: MATTHEW M. BROWN
EDWARDS POWER PLANT, ASH POND
EDW-257-301

QUALITY CONTROL SUMMARY

L1676546-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R4011543-2 12/12/23 14:33

1 Cp

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0186	U	0.0477	0.0843	0.0596
(T) Barium-133	75.3		75.3		

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1676546-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1676546-10 12/12/23 14:33 • (DUP) R4011543-5 12/12/23 14:33

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER U	DUP RPD Limits %	DUP RER Limit
Radium-226	0.541	0.309	0.272	0.195	0.0424	0.152	0.267	0.179	171	1.45	20	3
(T) Barium-133	97.6				99.4	99.4						

Laboratory Control Sample (LCS)

(LCS) R4011543-1 12/12/23 10:46

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.69	114	80.0-120	
(T) Barium-133			66.6		

L1676548-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676548-05 12/12/23 14:33 • (MS) R4011543-3 12/12/23 14:33 • (MSD) R4011543-4 12/12/23 14:33

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.382	21.4	23.1	105	113	1	75.0-125			7.70		20
(T) Barium-133		84.7		83.3	72.2								

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 Al
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
U	Below Detectable Limits: Indicates that the analyte was not detected.

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ Al

⁹ Sc

SUBCONTRACT ORDER**Transfer Chain of Custody**

C176

Pace Analytical Services, LLC**GK00902****SENDING LABORATORY**

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L676546

Sample: GK00902-01**Name: AP05S****Sampled: 11/06/23 11:00****Matrix: Ground Water****Preservative: HNO3, pH <2**

-01

✓

Analysis**Due****Expires****Comments**

01-Radium 226/228 combined

11/17/23 16:00

05/04/24 11:00

need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

01-Radium 226/228 combined

11/17/23 16:00

05/04/24 11:00

need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

Sample: GK00902-02**Name: APW-01****Sampled: 11/06/23 12:10****Matrix: Ground Water****Preservative: HNO3, pH <2**

-02

Analysis**Due****Expires****Comments**

01-Radium 226/228 combined

11/17/23 16:00

05/04/24 12:10

need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

01-Radium 226/228 combined

11/17/23 16:00

05/04/24 12:10

need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

Sample: GK00902-03**Name: AW-01****Sampled: 11/06/23 14:40****Matrix: Ground Water****Preservative: HNO3, pH <2**

-03

Analysis**Due****Expires****Comments**

01-Radium 226/228 combined

11/17/23 16:00

05/04/24 14:40

need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

01-Radium 226/228 combined

11/17/23 16:00

05/04/24 14:40

need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

Sample Receipt Checklist			
If Applicable			
COC Seal Present/Intact:	<input checked="" type="checkbox"/> N	VOA Zero Headspace:	<input checked="" type="checkbox"/> Y N
COC Signed/Accurate:	<input checked="" type="checkbox"/> N	Pres. Correct/Check:	<input checked="" type="checkbox"/> Y N
Bottles arrive intact:	<input checked="" type="checkbox"/> N		
Correct bottles used:	<input checked="" type="checkbox"/> N		
Sufficient volume sent:	<input checked="" type="checkbox"/> N		
RA Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> N		

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GK00902

LF676546

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GK00902-04**Name: AW-05****Sampled: 11/06/23 15:47****Matrix: Ground Water****Preservative: HNO3, pH <2****-04**

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 15:47	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 15:47	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

Sample: GK00902-05**Name: AW-06****Sampled: 11/06/23 12:50****Matrix: Ground Water****Preservative: HNO3, pH <2****-05**

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 12:50	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 12:50	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

Sample: GK00902-06**Name: AW-08****Sampled: 11/06/23 16:13****Matrix: Ground Water****Preservative: HNO3, pH <2****-06**

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 16:13	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 16:13	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
GK00902

U676546

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GK00902-07
Name: AW-09

Sampled: 11/06/23 11:15
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 11:15	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 11:15	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

Sample: GK00902-08
Name: AW-10

Sampled: 11/06/23 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 14:40	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 14:40	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

Sample: GK00902-09
Name: AW-01 DUP

Sampled: 11/06/23 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 14:40	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 14:40	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

SUBCONTRACT ORDER**Transfer Chain of Custody****Pace Analytical Services, LLC****GK00902**

L676546

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GK00902-10**Name: EQUIPMENT BLANK 1****Sampled: 11/06/23 16:45****Matrix: DI Water**

- (D)

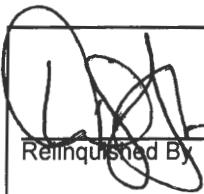
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 16:45	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT
01-Radium 226/228 combined	11/17/23 16:00	05/04/24 16:45	need Ra-226 , Ra-228, total combined and QC. 10 Day TAT

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 11/8/23 Total # of Containers: 10 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested NORMAL RUSH Date Results Needed: _____

	<u>11/8/23</u>	<u>1105</u>	<u>Taylor K</u>	<u>11-9-23 0900</u>	Sample Temperature Upon Receipt <u>MSA 18.7.600-175</u> °C
Relinquished By	Date/Time	Received By	Date/Time	Proper Bottles Received in Good Condition	Y or N
				Bottles Filled with Adequate Volume	Y or N
				Samples Received Within Hold Time	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or N

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

6k00259
Jm

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information		Page: 1 of 2								
Company:	Vistra Corp-Edwards	Report To:	Brian Voelker	Attention:	Mark Davis									
Address:	7800 Cilco Lane	Copy To:	Sam Davies-samantha.davies@vistracorp.com	Company Name:	Vistra Corp-Edwards	REGULATORY AGENCY								
	Peoria, IL 61607		Mark Davis-Mark.Davis1@vistracorp.com	Address:	see Section A	NPDES	GROUND WATER DRINKING WATER							
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Quote Reference:		UST	RCRA OTHER							
Phone:	(217) 753-8911	Fax:	Project Name:	Project Manager:		Site Location:	IL STATE:							
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #:										
Requested Analysis Filtered (Y/N)														
ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / ,.) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	↓ Analysis Test ↓	EDW-257-301 EDW-845-301 EDW-SUP-000 EDW-PGMP-301	Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME								
1	AP05S													
2	AP07S													
3	APW-01													
4	AW-01													
5	AW-05													
6	AW-06													
7	AW-08													
8	AW-09													
9	AW-10													
10	AW-11													
11	AW-14													
12	AW-15													
13	AW-15S													
14	AW-16													
15	AW-17	WT	6	11/1/23	1133	4 X X								
16	AW-18	WT	V	11/1/23	1255	4 X X								
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q4-Rev 0					11/1/23	1609			11/1/23	1609	5,8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

Aaron Remierian

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY):

11/11/2023

Temp in °C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Samples Intact (Y/N)

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis			
Address: 7800 Cilco Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Company Name: Vistra Corp-Edwards	REGULATORY AGENCY		
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location:	IL	
Requested Due Date/TAT: 10 day	Project Name: Project Number: 2285	Profile #:	STATE:		

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives		↓ Analysis Test ↓	Y/N	Requested Analysis Filtered (Y/N)				
				SAMPLE TYPE (G=GRAB C=COMP)	DATE			TIME	H ₂ SO ₄			HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol
1	AW-19	WTG	11/1/23	1412	4	X	X									
2	AW-20	WTG	11/1/23	1536	4	X	X									
3	AW-21															
4	AW-23															
5	EMW-05															
12	Field Blank															
13																
14																
15																
16																
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS					
EDW-23Q4-Rev 0					11/1/23	1609			11/1/23	1609	5.8	Y	N	Y		

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:			
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	11/1/2023
Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis			
Address: 7800 Cilco Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Company Name: Vistra Corp-Edwards	REGULATORY AGENCY		
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location:	IL	6KOC479 goj
Requested Due Date/TAT:	10 day	Project Number: 2285	STATE:		

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analysis Test ↓ Y/N	Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol			
1	AP05S																
2	AP07S																
3	APW-01																
4	AW-01																
5	AW-05																
6	AW-06																
7	AW-08																
8	AW-09																
9	AW-10																
10	AW-11																
11	AW-14																
12	AW-15	1:16	11/2/23	13:19				4 X X									
13	AW-15S	W:6	1/2/23	14:31				4 X X									
14	AW-16	W:L	11/2/23	13:38				4 X X									
15	AW-17																
16	AW-18																
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS						
EDW-23Q4-Rev 0					11/2/23	16:00			11/2/23	16:00	14.5	Y	N	4			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY):

11/02/23

Temp in °C	Received on Ice (Y/N)	Custody Seal/Cooler (Y/N)	Samples intact (Y/N)

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis			
Address: 7800 Cilco Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Company Name: Vistra Corp-Edwards	REGULATORY AGENCY		
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location	IL	6K00479 get
Requested Due Date/TAT:	10 day	Project Number: 2285	STATE:		

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Project No./ Lab I.D.
				DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	↓ Analysis Test ↓	Y/N				
1	AW-19																			
2	AW-20																			
3	AW-21	WT	G	11/2/23	1310		4 X	X												
4	AW-23																			
5	EMW-05																			
12	Field Blank	WT	G	11/2/23	1315		4 X	X												
13	AW-16 FD	WT	G	11/2/23	1338		4 X	X												
14																				
15																				
16																				
ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION				DATE	TIME	SAMPLE CONDITIONS						
EDW-23Q4-Rev 0						11/2/23	1600													

SAMPLER NAME AND SIGNATURE		Temp in °C
PRINT Name of SAMPLER:	Acusan Renalekton	
SIGNATURE of SAMPLER:	11/02/23	Custody Sealed/Colder (Y/N)
DATE Signed (MM/DD/YY):		Samples Intact (Y/N)

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis			
Address: 7800 Cilco Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Company Name: Vistra Corp-Edwards	REGULATORY AGENCY		
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location STATE: IL	IL	6K00C ^{E37} gej
Requested Due Date/TAT: 10 day		Profile #:			
Project Number: 2285					

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	CODE (see valid codes to left)	COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./ Lab I.D.
							MATRIX CODE (G=GRAB, C=COMP)	SAMPLE TYPE	DATE	TIME	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃		
1	AP05S																
2	AP07S	WT	6	11/3/23	1320	4	X	X									
3	APW-01																
4	AW-01																
5	AW-05																
6	AW-06																
7	AW-08																
8	AW-09																
9	AW-10																
10	AW-11	WT	6	11/3/23	1410	4	X	X									
11	AW-14	WT	6	11/3/23	1314	4	X	X									
12	AW-15																
13	AW-15S																
14	AW-16																
15	AW-17																
16	AW-18																
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS						
EDW-23Q4-Rev 0			<i>[Signature]</i>		11/3/23	1503	<i>[Signature]</i>		11/3/23	1503	10.7	Y	N	4			

SAMPLER NAME AND SIGNATURE		Temp in °C
PRINT Name of SAMPLER:	<i>[Signature]</i>	
SIGNATURE of SAMPLER:	<i>[Signature]</i>	Custody Sealed Cooler (Y/N)
		Samples Intact (Y/N)

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis			
Address: 7800 Cilco Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Company Name: Vistra Corp-Edwards	REGULATORY AGENCY		
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Address: see Section A	NPDES	GROUND WATER	DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Manager:	Site Location:		
Requested Due Date/TAT: 10 day	Project Name: Project Number: 2285	Profile #:	STATE: IL		G1K00G57 gen

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./ Lab I.D.
				MATRIX CODE (G=GRAB C=COMP)	SAMPLE TYPE (G=GRAB C=COMP)			DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol		
1	AW-19																	
2	AW-20																	
3	AW-21																	
4	AW-23	WT 6	11/3/23	1130	4	X	X											
5	EMW-05	WT 6	11/3/23	11463	4	X												
12	Field Blank																	
13																		
14																		
15																		
16																		
ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS						
EDW-23Q4-Rev 0				<i>[Signature]</i>		11/3/23	1503	<i>[Signature]</i>		11/3/23	1503	10.7	Y	N	Y			

SAMPLER NAME AND SIGNATURE		Temp in °C
PRINT Name of SAMPLER:	<i>grace</i>	
SIGNATURE of SAMPLER:	<i>Aaron Plumberton</i>	Custody Sealed Cooler (Y/N)
	DATE Signed (MM/DD/YY): 11/03/23	Samples Intact (Y/N)

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

GK00 902

Information:		Section B Required Project Information:		Section C Invoice Information:				Page: 2 of 2																																														
Vistra Corp-Edwards		Report To: Brian Voelker		Attention: Mark Davis																																																		
Address:	7800 Ciclo Lane	Copy To:	Sam Davies-samantha.davies@vistracorp.com	Company Name:	Vistra Corp-Edwards			REGULATORY AGENCY																																														
Peoria, IL 61607		Mark Davis-Mark.Davis1@vistracorp.com		Address:	see Section A			NPDES	GROUND WATER	DRINKING WATER																																												
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Quote Reference:				UST	RCRA	OTHER																																												
Phone:	(217) 753-8911	Fax:		Project Manager:				Site Location:	IL																																													
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #:				STATE:																																														
ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE	MATRIX CODE (use valid codes to left) COLLECTED	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives		Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No./ Lab I.D.																																									
								Unpreserved	H ₂ SO ₄	HNO ₃	HCl			NaOH	Na ₂ S ₂ O ₃	Methanol	Other	EDW-257-301	EDW-845-301	EDW-SUP-000	EDW-PGMP-301																																	
1	AW-19							X																																														
2	AW-20								X																																													
3	AW-21									X																																												
4	AW-23										X																																											
5	EMW-05											X																																										
12	Field Blank																																																					
13	4W-01 Dvp	WT	b	11/6/23	1440			X	X																																													
14	Equipment Blank 1	WT	b	11/6/23	1645			X	X																																													
15																																																						
16																																																						
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS																																											
EDW-23Q4-Rev 0			<i>[Signature]</i>		11/6/23	1709	<i>[Signature]</i>		11/6/23	1710	5.7	7	7	7																																								
<table border="1"> <tr> <td colspan="2">SAMPLER NAME AND SIGNATURE</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">PRINT Name of SAMPLER:</td> <td colspan="2"><i>Stacy Robertson</i></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">SIGNATURE of SAMPLER:</td> <td colspan="2"><i>[Signature]</i></td> <td colspan="2">DATE Signed (MM/DD/YY):</td> <td colspan="2">11/6/23</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> </tr> </table>													SAMPLER NAME AND SIGNATURE														PRINT Name of SAMPLER:		<i>Stacy Robertson</i>												SIGNATURE of SAMPLER:		<i>[Signature]</i>		DATE Signed (MM/DD/YY):		11/6/23							
SAMPLER NAME AND SIGNATURE																																																						
PRINT Name of SAMPLER:		<i>Stacy Robertson</i>																																																				
SIGNATURE of SAMPLER:		<i>[Signature]</i>		DATE Signed (MM/DD/YY):		11/6/23																																																
Temp in °C		Received on Ice (Y/N)		Custody Sealed Cooler (Y/N)		Samples In tact (Y/N)																																																

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
EDWARDS POWER PLANT, ASH POND
EDW-257-301

GK00902

CHAIN-OF-CUSTODY / Analytical Request Document

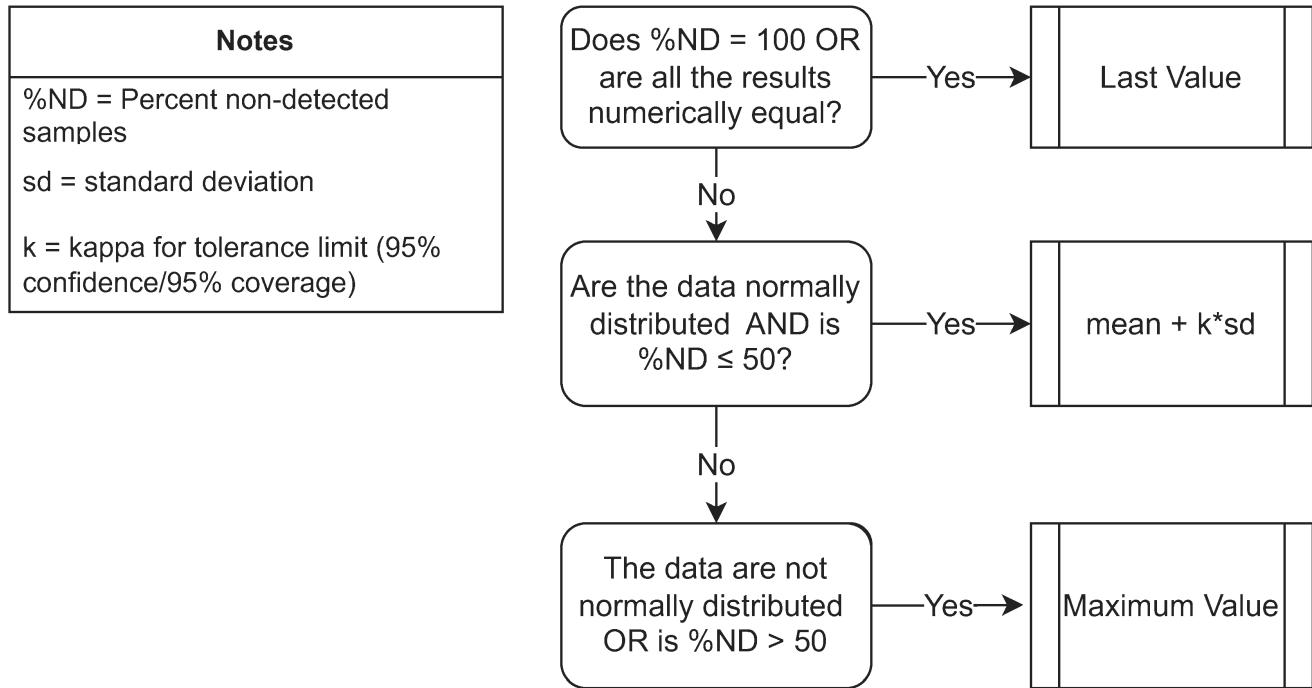
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2	
Company: Vistra Corp-Edwards	Report To: Brian Voelker	Attention: Mark Davis		Company Name: Vistra Corp-Edwards	REGULATORY AGENCY		
Address: 7800 Ciclo Lane	Copy To: Sam Davies-samantha.davies@vistracorp.com	Address: see Section A		NPDES	GROUND WATER	DRINKING WATER	
Peoria, IL 61607	Mark Davis-Mark.Davis1@vistracorp.com	Quote Reference:		UST	RCRA	OTHER	
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Project Manager:		Site Location	STATE: IL		
Phone: (217) 753-8911	Fax:	Project Name:					
Requested Due Date/TAT:	10 day	Project Number: 2285	Profile #:				

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Project No/Lab I.D.		
				SAMPLE ID (A-Z, 0-9 / .-) Sample IDs MUST BE UNIQUE	SAMPLE TYPE (G=GRAB C=COMP)				DATE	TIME			Y/N	↓ Analysis Test ↓
1	AP05S	WT	6	11/6/23	1100		4	X	X	EDW-257-301				
2	AP07S									EDW-845-301				
3	APW-01	WT	6	11/6/23	1210		4	X	X	EDW-SUP-000				
4	AW-01	WT	6	11/6/23	1440		4	X	X	EDW-PGMP-301				
5	AW-05	WT	6	11/6/23	1547		4	X	X					
6	AW-06	WT	6	11/6/23	1250		4	X	X					
7	AW-08	WT	6	11/6/23	1613		4	X	X					
8	AW-09	WT	6	11/6/23	1115		4	X	X					
9	AW-10	WT	6	11/6/23	1440		4	X	X					
10	AW-11													
11	AW-14													
12	AW-15													
13	AW-15S													
14	AW-16													
15	AW-17													
16	AW-18													
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
EDW-23Q4-Rev 0			<i>[Signature]</i>		11/6/23	1709	<i>[Signature]</i>		11/6/23	1710	5.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Log (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	<i>[Signature]</i>				
SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YY):	11/6/23		

APPENDIX B
STATISTICAL METHODOLOGY FOR DETERMINATION
OF BACKGROUND VALUES



APPENDIX C
STATISTICAL METHODOLGY FOR DETERMINATION OF
STATISTICALLY SIGNIFICANT LEVELS

Notes
%ND = Percent non-detected samples
MK = Mann-Kendall Trend Test
<u>Alpha Levels</u>
Normality = 0.01
MK Trend = 0.01
Residuals = 0.01
Confidence Level= 0.01

