

Prepared for
Electric Energy, Inc.

Date
January 31, 2024

Project No.
1940103649-011

**2023 40 C.F.R. § 257 ANNUAL
GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
LANDFILL
JOPPA POWER PLANT
JOPPA, ILLINOIS
CCR UNIT 402**

**2023 40 C.F.R. § 257 ANNUAL GROUNDWATER
MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT LANDFILL**

Project name **Joppa Power Plant Landfill**
Project no. **1940103649-011**
Recipient **Electric Energy, Inc.**
Document type **Annual Groundwater Monitoring and Corrective Action Report**
Version **FINAL**
Date **January 31, 2024**
Prepared by **Melanie K. Conklin**
Checked by **Lauren D. Cook**
Approved by **Brian G. Hennings**
Description **Annual Report required by 40 C.F.R. § 257.90(e)**

Ramboll
234 W. Florida Street
Fifth Floor
Milwaukee, WI 53204
USA

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



Melanie K. Conklin
Senior Project Engineer



Brian G. Hennings, PG
Project Officer, Hydrogeology

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 Detection Monitoring Program Summary

TABLES (ATTACHED)

Table 1 Groundwater Elevation Data
Table 2 Analytical Results - Appendix III Parameters
Table 3 Statistical Background Values

FIGURES (ATTACHED)

Figure 1 Monitoring Well Location Map
Figure 2 Potentiometric Surface Map, March 10 and 21, 2023
Figure 3 Potentiometric Surface Map, July 11, 2023

APPENDICES

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

ACRONYMS AND ABBREVIATIONS

40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternative Source Demonstration
CCR	coal combustion residuals
GWPS	groundwater protection standard
D12	Quarter 1, 2023 Detection Monitoring sampling event
D13	Quarter 3, 2023 Detection Monitoring sampling event
JPP	Joppa Power Plant
NA	not applicable
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	Sampling and Analysis Plan
SSI	statistically significant increase
TBD	to be determined

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.90(e) for the Landfill located at the Joppa Power Plant (JPP) near Joppa, Illinois.

Groundwater is being monitored at the Landfill in accordance with the Detection Monitoring Program requirements specified in 40 C.F.R. § 257.94.

No changes were made to the monitoring system in 2023 (no wells were installed or decommissioned).

No Statistically Significant Increases (SSIs) of 40 C.F.R. § 257 Appendix III parameter concentrations greater than background concentrations were determined and the Landfill remains in the Detection Monitoring Program.

1. INTRODUCTION

This report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of Electric Energy, Inc., to provide the information required by 40 C.F.R. § 257.90(e) for the Landfill located at the JPP near Joppa, 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 SSI 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 SSI over background for one or more constituents listed in Appendix III of §257 pursuant to §257.94(e):
 - A. Identify those constituents listed in Appendix III of §257 and the names of the monitoring wells associated with 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 (GWPS) for one or more constituents listed in Appendix IV of §257 pursuant to §257.95(g) include all of the following:
 - A. Identify those constituents listed in Appendix IV of §257 and the names of the monitoring wells associated with 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 Landfill 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 Landfill remains in the Detection Monitoring Program in accordance with 40 C.F.R. § 257.94.

3. KEY ACTIONS COMPLETED IN 2023

A summary of the samples collected from background and compliance monitoring wells in 2023 under the Detection Monitoring Program is summarized in **Table A** on the following page. The groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. A Groundwater Monitoring Plan was developed for the Landfill in 2023; no changes were made to the monitoring system (Ramboll, 2023a).

One groundwater sample was collected from each background and compliance well during each monitoring event. All samples were collected and analyzed in accordance with the Multi-Site Sampling and Analysis Plan (SAP) (Ramboll, 2023b).

Potentiometric surfaces for the semi-annual sampling events are included in **Figures 2 and 3**. All monitoring data and analytical results obtained under 40 C.F.R. § 257.90 through 257.98 in 2023 are presented in **Tables 1 and 2**. 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 2022a), the Multi-Site Quality Assurance Project Plan (Ramboll, 2022b), and the Multi-Site Data Management Plan (Ramboll, 2022c) to determine any SSIs of Appendix III parameters relative to background concentrations. SSIs are summarized in **Table A** and highlighted in **Table 2**. Statistical background values are provided in **Table 3**. A flow chart showing the statistical methodology for determination of background values is included as **Appendix B**.

No SSIs were reported in 2023 and the Landfill remains in the Detection Monitoring Program.

Table A. 2023 Detection Monitoring Program Summary

Event ID	Sampling Dates ^{1, 2, 3}	Analytical Data Receipt Date	SSI(s) Determination Date	SSI(s)	ASD Completion Date
D12	March 10 and March 21, 2023	April 10, 2023	July 9, 2023	None	NA
D13	September 26-28, 2023	November 16, 2023	TBD	TBD	TBD

Notes:

ASD: Alternative Source Demonstration

NA: not applicable

TBD: to be determined in 2024

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

² The following background wells were sampled for each event: G101 and G102

³ The following compliance wells were sampled for each event: G105, G107, G109, and G111

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 Multi-Site SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2024

The following key activities are planned for 2024:

- Continuation of the Detection Monitoring Program with semiannual sampling scheduled for the first and third quarters of 2024.
- Complete evaluation of analytical data from the compliance wells using background data to determine whether an SSI of Appendix III parameters detected at concentrations greater than background concentrations has occurred.
- If an SSI is identified, potential alternative sources (*i.e.*, a source other than the CCR unit caused the SSI or that the SSI 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 SSI, a written demonstration will be completed within 90 days of SSI 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 SSI, the applicable requirements of 40 C.F.R. §§ 257.94 through 257.98 as may apply in 2024 (*e.g.*, Assessment Monitoring) 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. Multi-Site Statistical Analysis Plan, 40 C.F.R. § 257. December 28, 2022.

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

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

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023a. Groundwater Monitoring Plan, Joppa Power Plant, Landfill, Joppa, Illinois, Electric Energy, Inc. December 31, 2023.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023b. 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
 JOPPA POWER PLANT
 LANDFILL
 JOPPA, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G101	Background	UA	03/21/2023	46.16	329.13
G101	Background	UA	05/03/2023	46.91	328.38
G101	Background	UA	07/11/2023	46.28	329.01
G101	Background	UA	09/25/2023	46.70	328.59
G101	Background	UA	10/23/2023	47.12	328.17
G101	Background	UA	11/08/2023	46.64	328.65
G102	Background	UA	03/10/2023	58.05	329.26
G102	Background	UA	07/11/2023	58.65	328.66
G102	Background	UA	09/25/2023	59.00	328.31
G102	Background	UA	10/23/2023	59.39	327.92
G102	Background	UA	11/08/2023	59.15	328.16
G105	Compliance	UA	03/10/2023	54.78	325.95
G105	Compliance	UA	05/03/2023	55.99	324.74
G105	Compliance	UA	07/11/2023	55.80	324.93
G105	Compliance	UA	09/25/2023	56.18	324.55
G105	Compliance	UA	10/23/2023	56.42	324.31
G105	Compliance	UA	11/08/2023	56.11	324.62
G107	Compliance	UA	03/10/2023	52.15	325.18
G107	Compliance	UA	05/03/2023	54.36	322.97
G107	Compliance	UA	07/11/2023	55.15	322.18
G107	Compliance	UA	09/25/2023	55.51	321.82
G107	Compliance	UA	10/23/2023	55.91	321.42
G107	Compliance	UA	11/08/2023	55.54	321.79
G109	Compliance	UA	03/10/2023	50.42	325.57
G109	Compliance	UA	05/03/2023	52.14	323.85
G109	Compliance	UA	07/11/2023	52.14	323.85
G109	Compliance	UA	09/25/2023	52.55	323.44
G109	Compliance	UA	10/23/2023	53.04	322.95
G109	Compliance	UA	11/08/2023	52.93	323.06
G111	Compliance	UA	03/21/2023	48.46	325.18
G111	Compliance	UA	05/03/2023	47.95	325.69
G111	Compliance	UA	07/11/2023	52.23	321.41
G111	Compliance	UA	09/25/2023	50.61	323.03
G111	Compliance	UA	10/23/2023	51.10	322.54

Notes:

Only wells with groundwater elevations measured are included.

BMP = below measuring point

NAVD88 = North American Vertical Datum of 1988

Monitored Unit Abbreviations:

UA = uppermost aquifer

Generated 2024-01-25 12:08:19.514355 by banoffra

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
 2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT
 LANDFILL
 JOPPA, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G101	UA	Background	03/21/2023	D12	Boron, total	mg/L	0.0525	NA	NA
G101	UA	Background	09/27/2023	D13	Boron, total	mg/L	0.0427	NA	NA
G101	UA	Background	03/21/2023	D12	Calcium, total	mg/L	27.0	NA	NA
G101	UA	Background	09/27/2023	D13	Calcium, total	mg/L	23.1	NA	NA
G101	UA	Background	03/21/2023	D12	Chloride, total	mg/L	37.0	NA	NA
G101	UA	Background	09/27/2023	D13	Chloride, total	mg/L	2 J	NA	NA
G101	UA	Background	03/21/2023	D12	Fluoride, total	mg/L	0.340	NA	NA
G101	UA	Background	09/27/2023	D13	Fluoride, total	mg/L	0.360	NA	NA
G101	UA	Background	03/21/2023	D12	pH (field)	SU	6.6	NA	NA
G101	UA	Background	09/27/2023	D13	pH (field)	SU	6.4	NA	NA
G101	UA	Background	03/21/2023	D12	Sulfate, total	mg/L	49.0	NA	NA
G101	UA	Background	09/27/2023	D13	Sulfate, total	mg/L	39.0	NA	NA
G101	UA	Background	03/21/2023	D12	Total Dissolved Solids	mg/L	700	NA	NA
G101	UA	Background	09/27/2023	D13	Total Dissolved Solids	mg/L	700	NA	NA
G102	UA	Background	03/10/2023	D12	Boron, total	mg/L	0.02 J	NA	NA
G102	UA	Background	09/27/2023	D13	Boron, total	mg/L	0.03 UJ	NA	NA
G102	UA	Background	03/10/2023	D12	Calcium, total	mg/L	9.42	NA	NA
G102	UA	Background	09/27/2023	D13	Calcium, total	mg/L	9.31	NA	NA
G102	UA	Background	03/10/2023	D12	Chloride, total	mg/L	6.00	NA	NA
G102	UA	Background	09/27/2023	D13	Chloride, total	mg/L	4.00	NA	NA
G102	UA	Background	03/10/2023	D12	Fluoride, total	mg/L	0.180	NA	NA
G102	UA	Background	09/27/2023	D13	Fluoride, total	mg/L	0.200	NA	NA
G102	UA	Background	03/10/2023	D12	pH (field)	SU	6.3	NA	NA
G102	UA	Background	09/27/2023	D13	pH (field)	SU	6.3	NA	NA
G102	UA	Background	03/10/2023	D12	Sulfate, total	mg/L	40.0	NA	NA
G102	UA	Background	09/27/2023	D13	Sulfate, total	mg/L	29.0	NA	NA
G102	UA	Background	03/10/2023	D12	Total Dissolved Solids	mg/L	234	NA	NA
G102	UA	Background	09/27/2023	D13	Total Dissolved Solids	mg/L	200	NA	NA
G105	UA	Compliance	03/10/2023	D12	Boron, total	mg/L	0.011 J	DQR	No Exceedance
G105	UA	Compliance	09/27/2023	D13	Boron, total	mg/L	0.0092 U	DQR	TBD
G105	UA	Compliance	03/10/2023	D12	Calcium, total	mg/L	23.4	45.3	No Exceedance
G105	UA	Compliance	09/27/2023	D13	Calcium, total	mg/L	29.0	45.3	TBD
G105	UA	Compliance	03/10/2023	D12	Chloride, total	mg/L	30.0	58.1	No Exceedance
G105	UA	Compliance	09/27/2023	D13	Chloride, total	mg/L	48.0	58.8	TBD
G105	UA	Compliance	03/10/2023	D12	Fluoride, total	mg/L	0.130	0.290	No Exceedance
G105	UA	Compliance	09/27/2023	D13	Fluoride, total	mg/L	0.160	0.290	TBD
G105	UA	Compliance	03/10/2023	D12	pH (field)	SU	6.0	5.8/6.6	No Exceedance
G105	UA	Compliance	09/27/2023	D13	pH (field)	SU	6.2	5.9/6.6	TBD
G105	UA	Compliance	03/10/2023	D12	Sulfate, total	mg/L	12.0	16.0	No Exceedance
G105	UA	Compliance	09/27/2023	D13	Sulfate, total	mg/L	19.0	19.0	TBD
G105	UA	Compliance	03/10/2023	D12	Total Dissolved Solids	mg/L	66.0	268	No Exceedance
G105	UA	Compliance	09/27/2023	D13	Total Dissolved Solids	mg/L	266	268	TBD
G107	UA	Compliance	03/10/2023	D12	Boron, total	mg/L	0.023 J	0.0373	No Exceedance
G107	UA	Compliance	09/28/2023	D13	Boron, total	mg/L	0.03 UJ	0.0373	TBD
G107	UA	Compliance	03/10/2023	D12	Calcium, total	mg/L	84.7	104	No Exceedance
G107	UA	Compliance	09/28/2023	D13	Calcium, total	mg/L	90.7	104	TBD

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
 2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT
 LANDFILL
 JOPPA, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G107	UA	Compliance	03/10/2023	D12	Chloride, total	mg/L	102	139	No Exceedance
G107	UA	Compliance	09/28/2023	D13	Chloride, total	mg/L	77.0	140	TBD
G107	UA	Compliance	03/10/2023	D12	Fluoride, total	mg/L	0.150	0.245	No Exceedance
G107	UA	Compliance	09/28/2023	D13	Fluoride, total	mg/L	0.220	0.246	TBD
G107	UA	Compliance	03/10/2023	D12	pH (field)	SU	6.4	6.2/7.0	No Exceedance
G107	UA	Compliance	09/28/2023	D13	pH (field)	SU	6.4	6.2/6.9	TBD
G107	UA	Compliance	03/10/2023	D12	Sulfate, total	mg/L	42.0	133	No Exceedance
G107	UA	Compliance	09/28/2023	D13	Sulfate, total	mg/L	26.0	131	TBD
G107	UA	Compliance	03/10/2023	D12	Total Dissolved Solids	mg/L	500	739	No Exceedance
G107	UA	Compliance	09/28/2023	D13	Total Dissolved Solids	mg/L	505	731	TBD
G109	UA	Compliance	03/10/2023	D12	Boron, total	mg/L	0.018 J	0.0315	No Exceedance
G109	UA	Compliance	09/26/2023	D13	Boron, total	mg/L	0.0251	0.0315	TBD
G109	UA	Compliance	03/10/2023	D12	Calcium, total	mg/L	27.0	47.5	No Exceedance
G109	UA	Compliance	09/26/2023	D13	Calcium, total	mg/L	17.4	46.3	TBD
G109	UA	Compliance	03/10/2023	D12	Chloride, total	mg/L	7.00	22.4	No Exceedance
G109	UA	Compliance	09/26/2023	D13	Chloride, total	mg/L	10.0	23.5	TBD
G109	UA	Compliance	03/10/2023	D12	Fluoride, total	mg/L	0.170	0.364	No Exceedance
G109	UA	Compliance	09/26/2023	D13	Fluoride, total	mg/L	0.210	0.360	TBD
G109	UA	Compliance	03/10/2023	D12	pH (field)	SU	6.3	6.1/7.0	No Exceedance
G109	UA	Compliance	09/26/2023	D13	pH (field)	SU	6.4	6.1/7.0	TBD
G109	UA	Compliance	03/10/2023	D12	Sulfate, total	mg/L	37.0	86.5	No Exceedance
G109	UA	Compliance	09/26/2023	D13	Sulfate, total	mg/L	23.0	85.3	TBD
G109	UA	Compliance	03/10/2023	D12	Total Dissolved Solids	mg/L	246	466	No Exceedance
G109	UA	Compliance	09/26/2023	D13	Total Dissolved Solids	mg/L	204	457	TBD
G111	UA	Compliance	03/21/2023	D12	Boron, total	mg/L	0.0470	0.0470	No Exceedance
G111	UA	Compliance	09/26/2023	D13	Boron, total	mg/L	0.0092 U	0.0470	TBD
G111	UA	Compliance	03/21/2023	D12	Calcium, total	mg/L	15.7	25.8	No Exceedance
G111	UA	Compliance	09/26/2023	D13	Calcium, total	mg/L	13.0	25.6	TBD
G111	UA	Compliance	03/21/2023	D12	Chloride, total	mg/L	6.00	19.5	No Exceedance
G111	UA	Compliance	09/26/2023	D13	Chloride, total	mg/L	9.00	19.2	TBD
G111	UA	Compliance	03/21/2023	D12	Fluoride, total	mg/L	0.240	0.375	No Exceedance
G111	UA	Compliance	09/26/2023	D13	Fluoride, total	mg/L	0.300	0.373	TBD
G111	UA	Compliance	03/21/2023	D12	pH (field)	SU	6.6	5.9/6.8	No Exceedance
G111	UA	Compliance	09/26/2023	D13	pH (field)	SU	6.6	5.9/6.8	TBD
G111	UA	Compliance	03/21/2023	D12	Sulfate, total	mg/L	23.0	49.7	No Exceedance
G111	UA	Compliance	09/26/2023	D13	Sulfate, total	mg/L	16.0	49.3	TBD
G111	UA	Compliance	03/21/2023	D12	Total Dissolved Solids	mg/L	226	353	No Exceedance
G111	UA	Compliance	09/26/2023	D13	Total Dissolved Solids	mg/L	214	351	TBD

Notes:

HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

ID = identification

mg/L = milligrams per liter

NA = not applicable

Statistically Significant Increase (SSI) Type:

TBD: To be determined in 2024.

No Exceedance: No exceedance of the background.

SU = Standard Units

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

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.

TABLE 3
STATISTICAL BACKGROUND VALUES
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT
LANDFILL
JOPPA, IL

Parameter	Well ID	Event ID	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Background Value (LPL/UPL)
Boron (mg/L)	G105	D12	12/22/2015 - 03/10/2023	20	100	DQR	DQR
Boron (mg/L)	G105	D13	12/22/2015 - 09/27/2023	21	100	DQR	DQR
Boron (mg/L)	G107	D12	12/22/2015 - 03/10/2023	20	60	Non-Parametric UPL	0.0373
Boron (mg/L)	G107	D13	12/22/2015 - 09/28/2023	21	62	Non-Parametric UPL	0.0373
Boron (mg/L)	G109	D12	12/22/2015 - 03/10/2023	20	75	Non-Parametric UPL	0.0315
Boron (mg/L)	G109	D13	12/22/2015 - 09/26/2023	21	71	Non-Parametric UPL	0.0315
Boron (mg/L)	G111	D12	12/22/2015 - 03/21/2023	20	60	Non-Parametric UPL	0.0470
Boron (mg/L)	G111	D13	12/22/2015 - 09/26/2023	21	62	Non-Parametric UPL	0.0470
Calcium (mg/L)	G105	D12	12/22/2015 - 03/10/2023	20	0	Non-Parametric UPL	45.3
Calcium (mg/L)	G105	D13	12/22/2015 - 09/27/2023	21	0	Non-Parametric UPL	45.3
Calcium (mg/L)	G107	D12	12/22/2015 - 03/10/2023	20	0	Parametric UPL	104
Calcium (mg/L)	G107	D13	12/22/2015 - 09/28/2023	21	0	Parametric UPL	104
Calcium (mg/L)	G109	D12	12/22/2015 - 03/10/2023	20	0	Parametric UPL (log-transformed)	47.5
Calcium (mg/L)	G109	D13	12/22/2015 - 09/26/2023	21	0	Parametric UPL (log-transformed)	46.3
Calcium (mg/L)	G111	D12	12/22/2015 - 03/21/2023	20	0	Parametric UPL	25.8
Calcium (mg/L)	G111	D13	12/22/2015 - 09/26/2023	21	0	Parametric UPL	25.6
Chloride (mg/L)	G105	D12	12/22/2015 - 03/10/2023	20	0	Parametric UPL	58.1
Chloride (mg/L)	G105	D13	12/22/2015 - 09/27/2023	21	0	Parametric UPL	58.8
Chloride (mg/L)	G107	D12	12/22/2015 - 03/10/2023	20	0	Parametric UPL	139
Chloride (mg/L)	G107	D13	12/22/2015 - 09/28/2023	21	0	Parametric UPL	140
Chloride (mg/L)	G109	D12	12/22/2015 - 03/10/2023	21	0	Parametric UPL	22.4
Chloride (mg/L)	G109	D13	12/22/2015 - 09/26/2023	22	0	Parametric UPL (log-transformed)	23.5
Chloride (mg/L)	G111	D12	12/22/2015 - 03/21/2023	20	10	Parametric UPL	19.5
Chloride (mg/L)	G111	D13	12/22/2015 - 09/26/2023	21	10	Parametric UPL	19.2
Fluoride (mg/L)	G105	D12	12/22/2015 - 03/10/2023	20	0	Non-Parametric UPL	0.290
Fluoride (mg/L)	G105	D13	12/22/2015 - 09/27/2023	21	0	Non-Parametric UPL	0.290
Fluoride (mg/L)	G107	D12	12/22/2015 - 03/10/2023	20	0	Parametric UPL	0.245
Fluoride (mg/L)	G107	D13	12/22/2015 - 09/28/2023	21	0	Parametric UPL	0.246
Fluoride (mg/L)	G109	D12	12/22/2015 - 03/10/2023	21	0	Parametric UPL	0.364
Fluoride (mg/L)	G109	D13	12/22/2015 - 09/26/2023	22	0	Parametric UPL	0.360

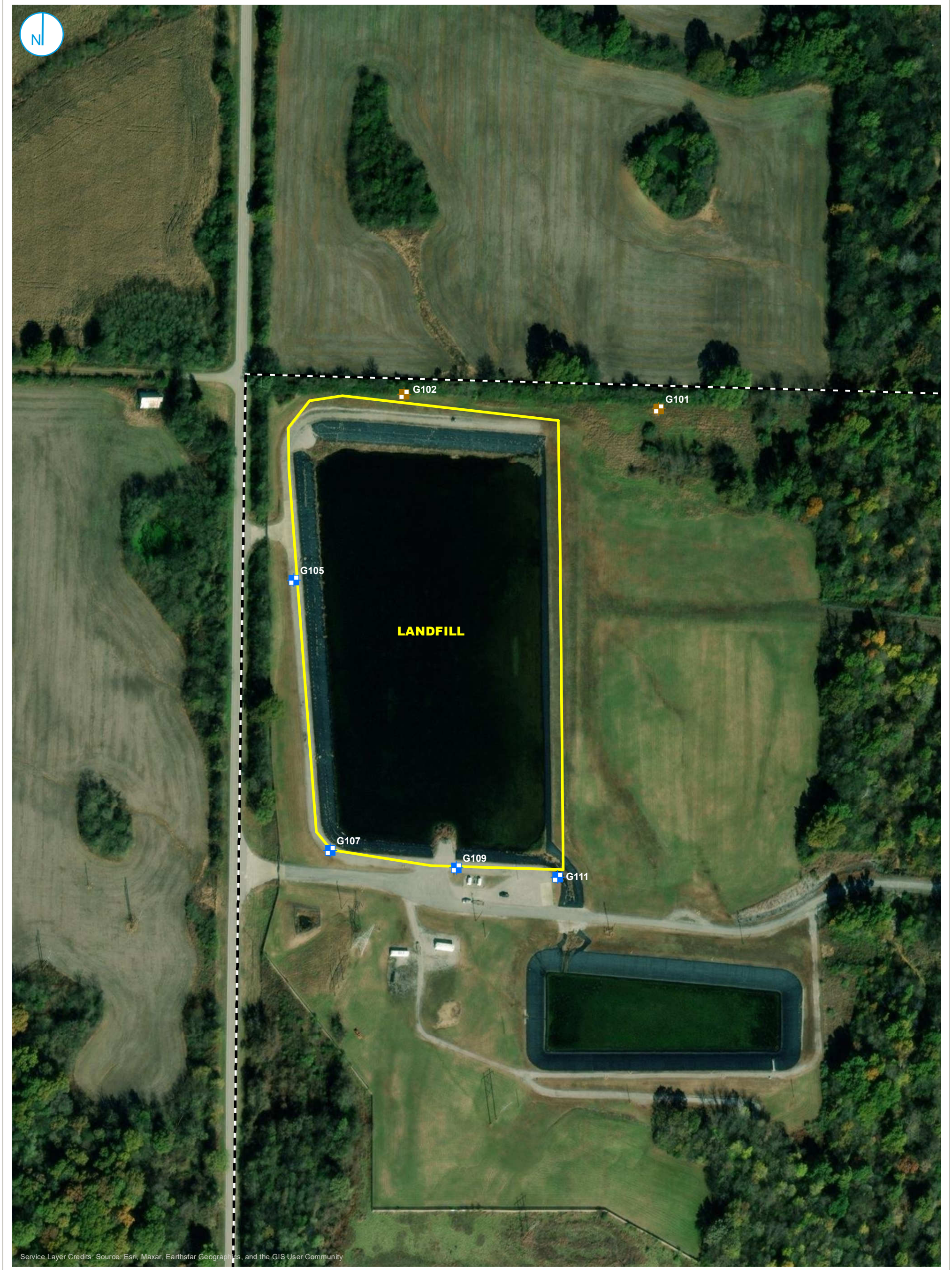
TABLE 3
STATISTICAL BACKGROUND VALUES
 2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT
 LANDFILL
 JOPPA, IL

Parameter	Well ID	Event ID	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Background Value (LPL/UPL)
Fluoride (mg/L)	G111	D12	12/22/2015 - 03/21/2023	20	0	Parametric UPL	0.375
Fluoride (mg/L)	G111	D13	12/22/2015 - 09/26/2023	21	0	Parametric UPL	0.373
pH (field) (SU)	G105	D12	12/22/2015 - 03/10/2023	20	0	Parametric LPL/UPL	5.8/6.6
pH (field) (SU)	G105	D13	12/22/2015 - 09/27/2023	21	0	Parametric LPL/UPL	5.9/6.6
pH (field) (SU)	G107	D12	12/22/2015 - 03/10/2023	20	0	Parametric LPL/UPL	6.2/7.0
pH (field) (SU)	G107	D13	12/22/2015 - 09/28/2023	21	0	Parametric LPL/UPL	6.2/6.9
pH (field) (SU)	G109	D12	12/22/2015 - 03/10/2023	21	0	Parametric LPL/UPL	6.1/7.0
pH (field) (SU)	G109	D13	12/22/2015 - 09/26/2023	22	0	Parametric LPL/UPL	6.1/7.0
pH (field) (SU)	G111	D12	12/22/2015 - 03/21/2023	20	0	Non-Parametric LPL/UPL	5.9/6.8
pH (field) (SU)	G111	D13	12/22/2015 - 09/26/2023	21	0	Non-Parametric LPL/UPL	5.9/6.8
Sulfate (mg/L)	G105	D12	12/22/2015 - 03/10/2023	20	0	Non-Parametric UPL	16.0
Sulfate (mg/L)	G105	D13	12/22/2015 - 09/27/2023	21	0	Non-Parametric UPL	19.0
Sulfate (mg/L)	G107	D12	12/22/2015 - 03/10/2023	20	0	Parametric UPL	133
Sulfate (mg/L)	G107	D13	12/22/2015 - 09/28/2023	21	0	Parametric UPL	131
Sulfate (mg/L)	G109	D12	12/22/2015 - 03/10/2023	21	0	Parametric UPL	86.5
Sulfate (mg/L)	G109	D13	12/22/2015 - 09/26/2023	22	0	Parametric UPL	85.3
Sulfate (mg/L)	G111	D12	12/22/2015 - 03/21/2023	20	5	Parametric UPL	49.7
Sulfate (mg/L)	G111	D13	12/22/2015 - 09/26/2023	21	5	Parametric UPL	49.3
Total Dissolved Solids (mg/L)	G105	D12	12/22/2015 - 03/10/2023	20	0	Non-Parametric UPL	268
Total Dissolved Solids (mg/L)	G105	D13	12/22/2015 - 09/27/2023	21	0	Non-Parametric UPL	268
Total Dissolved Solids (mg/L)	G107	D12	12/22/2015 - 03/10/2023	20	0	Parametric UPL	739
Total Dissolved Solids (mg/L)	G107	D13	12/22/2015 - 09/28/2023	21	0	Parametric UPL	731
Total Dissolved Solids (mg/L)	G109	D12	12/22/2015 - 03/10/2023	20	5	Parametric UPL	466
Total Dissolved Solids (mg/L)	G109	D13	12/22/2015 - 09/26/2023	21	5	Parametric UPL	457
Total Dissolved Solids (mg/L)	G111	D12	12/22/2015 - 03/21/2023	20	0	Parametric UPL	353
Total Dissolved Solids (mg/L)	G111	D13	12/22/2015 - 09/26/2023	21	0	Parametric UPL	351

Notes:
 DQR = Double Quantification Rule
 ID = identification
 LPL = lower prediction limit (applicable for pH only)
 mg/L = milligrams per liter
 SU = standard units
 UPL = upper prediction limit

Generated 2024-01-14 01:38:32.305271 by banoffra

FIGURES



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- PROPERTY BOUNDARY

0 100 200
 └───┬───┬───┘
 Feet

MONITORING WELL LOCATION MAP

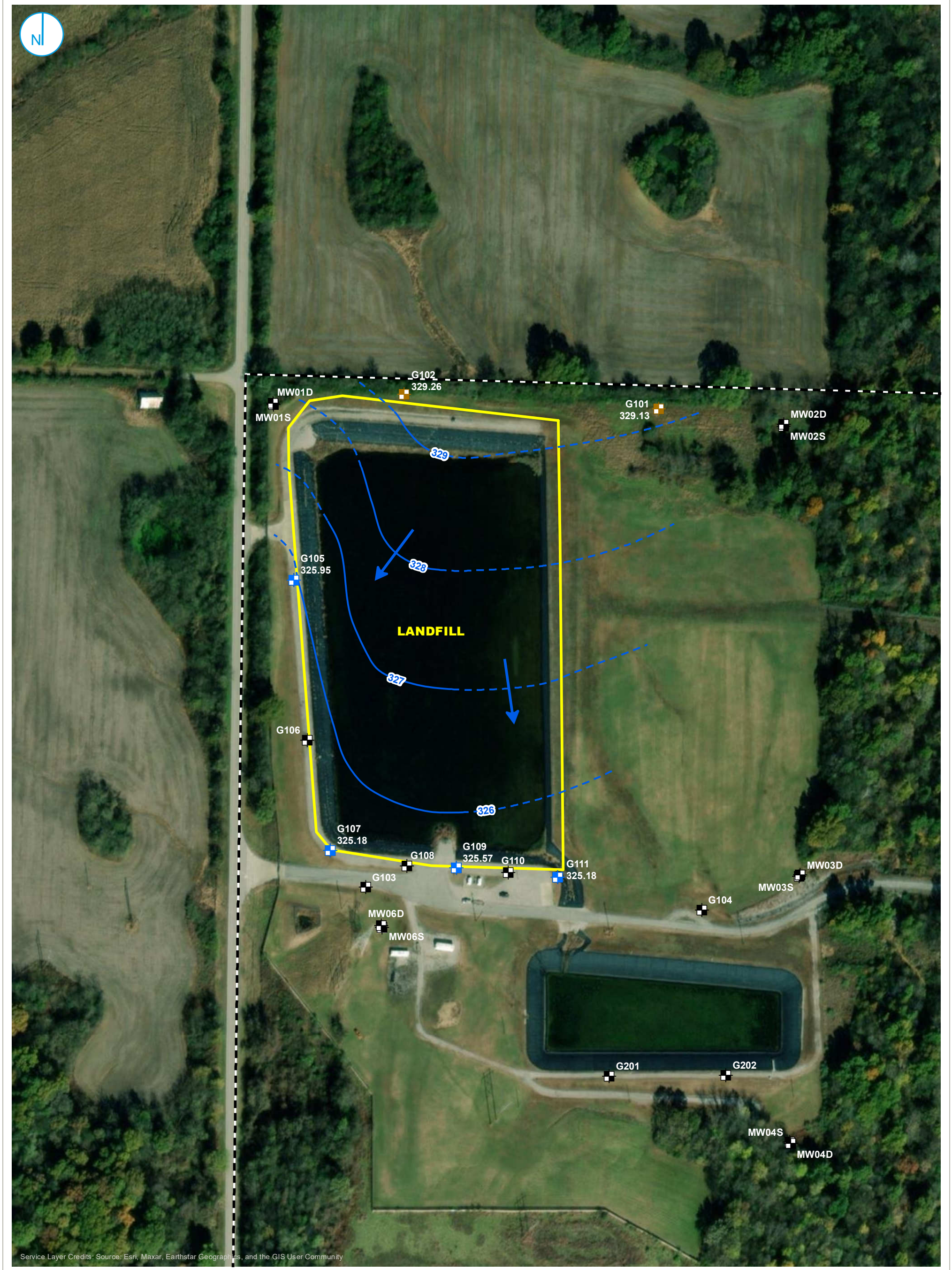
FIGURE 1

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

JOPPA POWER PLANT
 JOPPA, ILLINOIS

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.





Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- PROPERTY BOUNDARY
- GROUNDWATER ELEVATION CONTOUR (1-FT CONTOUR INTERVAL, NAVD88)
- - - INFERRED GROUNDWATER ELEVATION CONTOUR
- ➔ GROUNDWATER FLOW DIRECTION

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



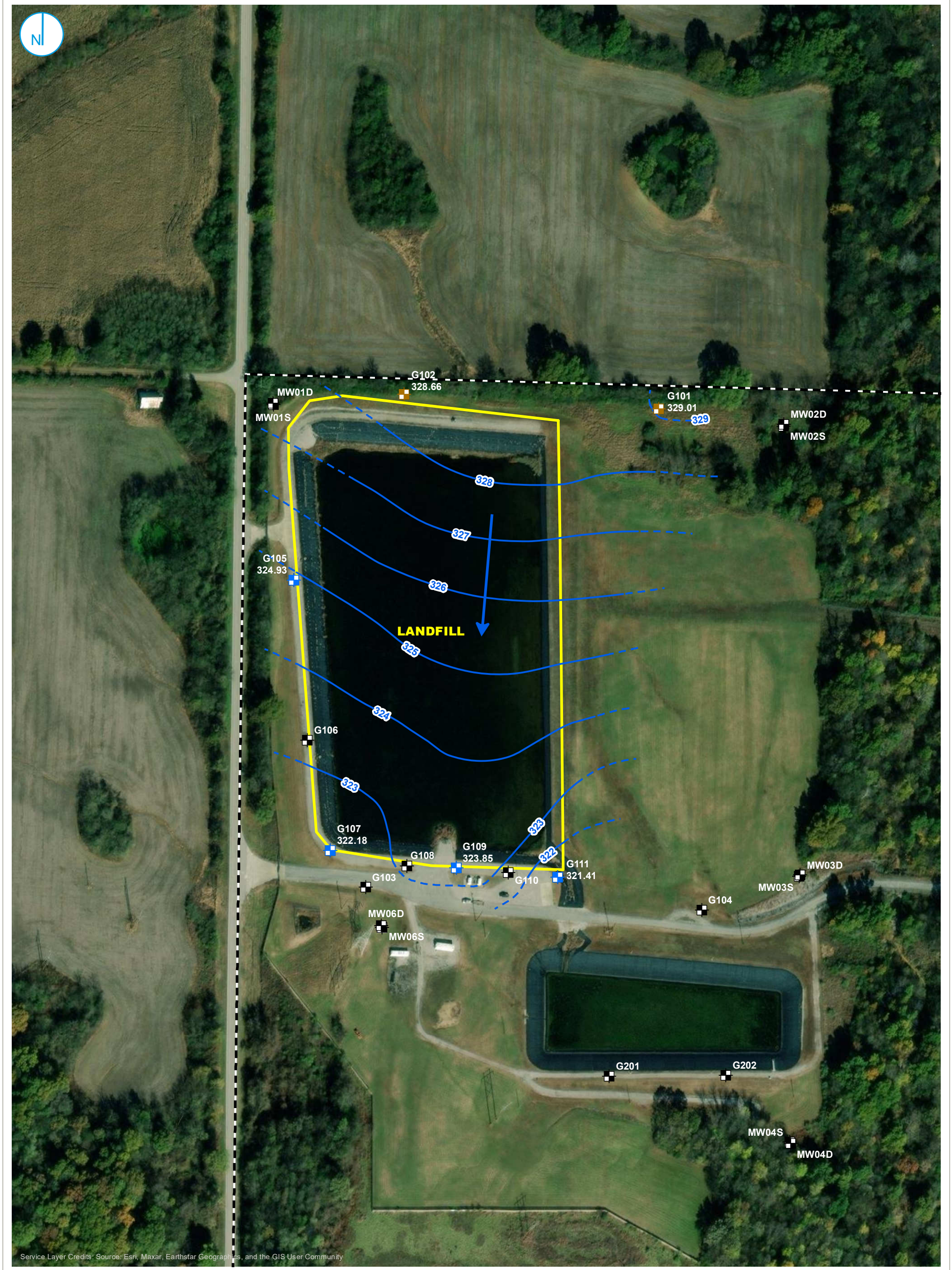
POTENTIOMETRIC SURFACE MAP MARCH 10 AND 21, 2023

**2023 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT**
LANDFILL
 JOPPA POWER PLANT
 JOPPA, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.





Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- PROPERTY BOUNDARY
- GROUNDWATER ELEVATION CONTOUR (1-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

NOTES
 1. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)



**POTENTIOMETRIC SURFACE MAP
 JULY 11, 2023**

FIGURE 3

**2023 ANNUAL GROUNDWATER MONITORING
 AND CORRECTIVE ACTION REPORT**
LANDFILL
 JOPPA POWER PLANT
 JOPPA, ILLINOIS

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.



APPENDIX A
LABORATORY REPORTS AND FIELD DATA SHEETS

April 03, 2023

Brian Voelker
Vistra Energy
1500 Eastport Plaza Drive
Collinsville, IL 62234
TEL: (217) 412-6605
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: JOP-23Q1

WorkOrder: 23030880

Dear Brian Voelker:

TEKLAB, INC received 3 samples on 3/21/2023 3:52:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Director of Customer Service
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	10
Dates Report	11
Quality Control Results	13
Receiving Check List	18
Chain of Custody	Appended



Definitions

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)



Definitions

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Vistra Energy
Client Project: JOP-23Q1

Work Order: 23030880
Report Date: 03-Apr-23

Cooler Receipt Temp: 5.0 °C

An employee of Teklab, Inc. collected the sample(s).

Per Eric Bauer, no analyses required at XTPW07. EAH 3/20/23

XPW02 was resampled for field parameters, only, due to an error with the field data in WO# 23021699. EAH 3/21/23

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Vistra Energy
Client Project: JOP-23Q1

Work Order: 23030880
Report Date: 03-Apr-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

Lab ID: 23030880-001

Client Sample ID: G101_LF

Matrix: GROUNDWATER

Collection Date: 03/21/2023 12:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		46.16	ft	1	03/21/2023 12:46	R326637
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		672	NTU	1	03/21/2023 12:46	R326637
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		118.6	mV	1	03/21/2023 12:46	R326637
STANDARD METHODS 2510 B FIELD								
Conductivity	*	1		395.9	µS/cm @25C	1	03/21/2023 12:46	R326637
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		14.2	°C	1	03/21/2023 12:46	R326637
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		5.16	mg/L	1	03/21/2023 12:46	R326637
SW-846 9040B FIELD								
pH	*	1.00		6.59		1	03/21/2023 12:46	R326637
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		103	mg/L	1	03/23/2023 13:19	R326368
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	03/23/2023 13:19	R326368
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		700	mg/L	2.5	03/22/2023 10:13	R326363
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		49	mg/L	2	03/28/2023 22:15	R326589
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.34	mg/L	1	03/27/2023 11:54	R326508
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		37	mg/L	5	03/30/2023 17:26	R326705
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100	S	27.0	mg/L	1	03/28/2023 10:37	204201
Magnesium	NELAP	0.0500	S	13.2	mg/L	1	03/24/2023 22:08	204201
Potassium	NELAP	0.100		2.70	mg/L	1	03/24/2023 22:08	204201
Sodium	NELAP	0.0500	S	55.2	mg/L	1	03/24/2023 22:08	204201
<i>Sample result for Na exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>								
<i>Matrix spike control limits are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Boron	NELAP	0.0250		0.0525	mg/L	5	03/27/2023 19:03	204201



Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

Lab ID: 23030880-002

Client Sample ID: G111_LF

Matrix: GROUNDWATER

Collection Date: 03/21/2023 11:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		48.46	ft	1	03/21/2023 11:46	R326637
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		15.9	NTU	1	03/21/2023 11:46	R326637
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		76	mV	1	03/21/2023 11:46	R326637
STANDARD METHODS 2510 B FIELD								
Conductivity	*	1		433.4	µS/cm @25C	1	03/21/2023 11:46	R326637
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		15.4	°C	1	03/21/2023 11:46	R326637
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		2.26	mg/L	1	03/21/2023 11:46	R326637
SW-846 9040B FIELD								
pH	*	1.00		6.56		1	03/21/2023 11:46	R326637
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		137	mg/L	1	03/23/2023 13:24	R326368
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	03/23/2023 13:24	R326368
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		226	mg/L	1	03/22/2023 10:13	R326363
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		23	mg/L	1	03/28/2023 12:44	R326589
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.24	mg/L	1	03/27/2023 11:55	R326508
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		6	mg/L	1	03/28/2023 12:45	R326602
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		15.7	mg/L	1	03/28/2023 10:41	204201
Magnesium	NELAP	0.0500		4.71	mg/L	1	03/24/2023 22:21	204201
Potassium	NELAP	0.100		2.33	mg/L	1	03/24/2023 22:21	204201
Sodium	NELAP	0.0500		54.9	mg/L	1	03/24/2023 22:21	204201
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Boron	NELAP	0.0250		0.0470	mg/L	5	03/27/2023 18:51	204201



Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

Lab ID: 23030880-003

Client Sample ID: XPW02

Matrix: GROUNDWATER

Collection Date: 03/21/2023 11:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		1.6	NTU	1	03/21/2023 11:05	R326637
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-149.8	mV	1	03/21/2023 11:05	R326637
STANDARD METHODS 2510 B FIELD								
Conductivity	*	1		6277	µS/cm @25C	1	03/21/2023 11:05	R326637
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		14.5	°C	1	03/21/2023 11:05	R326637
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		2.15	mg/L	1	03/21/2023 11:05	R326637
SW-846 9040B FIELD								
pH	*	1.00		7.60		1	03/21/2023 11:05	R326637



Sample Summary

<http://www.teklabinc.com/>

Client: Vistra Energy
Client Project: JOP-23Q1

Work Order: 23030880
Report Date: 03-Apr-23

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
23030880-001	G101_LF	Groundwater	2	03/21/2023 12:46
23030880-002	G111_LF	Groundwater	2	03/21/2023 11:46
23030880-003	XPW02	Groundwater	1	03/21/2023 11:05



Dates Report

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: **23030880**

Client Project: **JOP-23Q1**

Report Date: **03-Apr-23**

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
23030880-001A	G101_LF	03/21/2023 12:46	03/21/2023 15:52		
	Field Elevation Measurements				03/21/2023 12:46
	Standard Methods 2130 B Field				03/21/2023 12:46
	Standard Methods 18th Ed. 2580 B Field				03/21/2023 12:46
	Standard Methods 2320 B (Total) 1997, 2011				03/23/2023 13:19
	Standard Methods 2320 B 1997, 2011				03/23/2023 13:19
	Standard Methods 2510 B Field				03/21/2023 12:46
	Standard Methods 2540 C (Total) 1997, 2011				03/22/2023 10:13
	Standard Methods 2550 B Field				03/21/2023 12:46
	Standard Methods 4500-O G Field				03/21/2023 12:46
	SW-846 9036 (Total)				03/28/2023 22:15
	SW-846 9040B Field				03/21/2023 12:46
	SW-846 9214 (Total)				03/27/2023 11:54
	SW-846 9251 (Total)				03/30/2023 17:26
23030880-001B	G101_LF	03/21/2023 12:46	03/21/2023 15:52		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/23/2023 6:51	03/24/2023 22:08
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/23/2023 6:51	03/28/2023 10:37
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/23/2023 6:51	03/24/2023 17:10
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/23/2023 6:51	03/27/2023 19:03
23030880-002A	G111_LF	03/21/2023 11:46	03/21/2023 15:52		
	Field Elevation Measurements				03/21/2023 11:46
	Standard Methods 2130 B Field				03/21/2023 11:46
	Standard Methods 18th Ed. 2580 B Field				03/21/2023 11:46
	Standard Methods 2320 B (Total) 1997, 2011				03/23/2023 13:24
	Standard Methods 2320 B 1997, 2011				03/23/2023 13:24
	Standard Methods 2510 B Field				03/21/2023 11:46
	Standard Methods 2540 C (Total) 1997, 2011				03/22/2023 10:13
	Standard Methods 2550 B Field				03/21/2023 11:46
	Standard Methods 4500-O G Field				03/21/2023 11:46
	SW-846 9036 (Total)				03/28/2023 12:44
	SW-846 9040B Field				03/21/2023 11:46
	SW-846 9214 (Total)				03/27/2023 11:55
	SW-846 9251 (Total)				03/28/2023 12:45
23030880-002B	G111_LF	03/21/2023 11:46	03/21/2023 15:52		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/23/2023 6:51	03/24/2023 22:21
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/23/2023 6:51	03/28/2023 10:41
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/23/2023 6:51	03/24/2023 17:04



Dates Report

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/23/2023 6:51	03/27/2023 18:51
23030880-003A	XPW02	03/21/2023 11:05	03/21/2023 15:52		
	Standard Methods 2130 B Field				03/21/2023 11:05
	Standard Methods 18th Ed. 2580 B Field				03/21/2023 11:05
	Standard Methods 2510 B Field				03/21/2023 11:05
	Standard Methods 2550 B Field				03/21/2023 11:05
	Standard Methods 4500-O G Field				03/21/2023 11:05
	SW-846 9040B Field				03/21/2023 11:05



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

STANDARD METHODS 2510 B FIELD

Batch R326637 SampType: LCS Units $\mu\text{S/cm @25C}$

SampID: LCS-R326637

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Conductivity	*	1		1410	1409	0	100.4	90	110	03/21/2023

SW-846 9040B FIELD

Batch R326637 SampType: LCS Units

SampID: LCS-R326637

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
pH	*	1.00		7.10	7.000	0	101.4	98.57	101.4	03/21/2023

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R326363 SampType: MBLK Units mg/L

SampID: MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/22/2023

Batch R326363 SampType: LCS Units mg/L

SampID: LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Dissolved Solids		20		922	1000	0	92.2	90	110	03/22/2023

Batch R326363 SampType: DUP Units mg/L

SampID: 23030880-001ADUP

RPD Limit: 5

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids		50		680				700.0	2.90	03/22/2023

Batch R326363 SampType: DUP Units mg/L

SampID: 23030880-002ADUP

RPD Limit: 5

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids		20		222				226.0	1.79	03/22/2023

Batch R326794 SampType: MBLK Units mg/L

SampID: MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/31/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R326794		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		920	1000	0	92.0	90	110	03/31/2023	

SW-846 9036 (TOTAL)

Batch R326589		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	03/28/2023	

Batch R326589		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICB/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		20	20.00	0	99.2	90	110	03/28/2023	

Batch R326589		SampType: MS		Units mg/L							Date Analyzed
SampID: 23030880-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		20		83	40.00	49.18	85.7	85	115	03/28/2023	

Batch R326589		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23030880-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		20		86	40.00	49.18	90.9	83.46	2.45	03/28/2023		

Batch R326700		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK/ICB											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	03/30/2023	

Batch R326700		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS/ICV											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		20	20.00	0	100.6	90	110	03/30/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

SW-846 9214 (TOTAL)

Batch R326508		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0370	0	0	-100	100	03/27/2023	

Batch R326508		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		0.99	1.000	0	98.7	90	110	03/27/2023	

Batch R326508		SampType: MS		Units mg/L							
SampID: 23030880-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.35	2.000	0.2400	105.4	75	125	03/27/2023	

Batch R326508		SampType: MSD		Units mg/L							
SampID: 23030880-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.33	2.000	0.2400	104.4	2.348	0.81	03/27/2023	

SW-846 9251 (TOTAL)

Batch R326602		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	03/28/2023	

Batch R326602		SampType: LCS		Units mg/L							
SampID: ICB/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		20	20.00	0	98.3	90	110	03/28/2023	

Batch R326705		SampType: MBLK		Units mg/L							
SampID: MBLK/ICB											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	03/30/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

SW-846 9251 (TOTAL)

Batch R326705		SampType: LCS		Units mg/L							
SampID: LCS/ICV											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		20	20.00	0	101.8	90	110	03/30/2023	

Batch R326705		SampType: MS		Units mg/L							
SampID: 23030880-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		20		140	100.0	37.34	102.5	85	115	03/30/2023	

Batch R326705		SampType: MSD		Units mg/L							
SampID: 23030880-001AMSD											
										RPD Limit: 15	
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		20		143	100.0	37.34	105.6	139.9	2.21	03/30/2023	

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 204201		SampType: MBLK		Units mg/L							
SampID: MBLK-204201											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/24/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	03/24/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	03/24/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	03/24/2023	

Batch 204201		SampType: LCS		Units mg/L							
SampID: LCS-204201											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.71	2.500	0	108.6	85	115	03/24/2023	
Magnesium		0.0500		2.33	2.500	0	93.2	85	115	03/24/2023	
Potassium		0.100		2.52	2.500	0	100.9	85	115	03/24/2023	
Sodium		0.0500		2.52	2.500	0	100.8	85	115	03/24/2023	

Batch 204201		SampType: MS		Units mg/L							
SampID: 23030880-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100	S	31.2	2.500	26.97	169.6	75	125	03/28/2023	
Magnesium		0.0500	S	16.5	2.500	13.22	130.8	75	125	03/24/2023	
Potassium		0.100		5.14	2.500	2.700	97.5	75	125	03/24/2023	
Sodium		0.0500	S	59.0	2.500	55.20	151.2	75	125	03/24/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23030880

Client Project: JOP-23Q1

Report Date: 03-Apr-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 204201		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23030880-001BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	30.7	2.500	26.97	150.8	31.21	1.52	03/28/2023	
Magnesium		0.0500	S	16.5	2.500	13.22	132.8	16.49	0.31	03/24/2023	
Potassium		0.100		5.19	2.500	2.700	99.6	5.137	1.02	03/24/2023	
Sodium		0.0500	S	59.1	2.500	55.20	156.4	58.98	0.22	03/24/2023	

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 204201		SampType: MBLK		Units mg/L							
SampID: MBLK-204201											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	03/27/2023	

Batch 204201 SampType: LCS Units mg/L

SampID: LCS-204201											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Boron		0.0250		0.563	0.5000	0	112.6	80	120	03/27/2023	

Batch 204201 SampType: MS Units mg/L

SampID: 23030880-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Boron		0.0250		0.572	0.5000	0.05248	103.9	75	125	03/27/2023	

Batch 204201 SampType: MSD Units mg/L

Batch 204201		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23030880-001BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Boron		0.0250		0.584	0.5000	0.05248	106.4	0.5719	2.18	03/27/2023	



Receiving Check List

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: **23030880**

Client Project: **JOP-23Q1**

Report Date: **03-Apr-23**

Carrier: Justin Colp

Received By: TWM

Completed by:

Reviewed by:

On:

On:

21-Mar-23

21-Mar-23

Lindsey Maddox

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 5.0 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|---|-----------------------------|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

pH strip #88374. - BNB/lmaddox - 3/21/2023 4:25:15 PM

April 10, 2023

Brian Voelker
Vistra Energy
1500 Eastport Plaza Drive
Collinsville, IL 62234
TEL: (217) 412-6605
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: JOP-23Q1

WorkOrder: 23021699

Dear Brian Voelker:

TEKLAB, INC received 72 samples on 3/11/2023 8:00:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Director of Customer Service
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	13
Dates Report	14
Quality Control Results	17
Receiving Check List	45
Chain of Custody	Appended



Definitions

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)



Definitions

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Vistra Energy
Client Project: JOP-23Q1

Work Order: 23021699
Report Date: 10-Apr-23

Cooler Receipt Temp: 2.4 °C

An employee of Teklab, Inc. collected the sample(s).

TPZ116, TPZ117, and TPZ119 could not be collected; the wells were dry.

G101_LF and G111_LF will be collected at a later date. XTPW07 could not be collected; the pump was stuck in the well. Another attempt will be made at a later date. JPW/EAH 3/13/23

Per Eric Bauer, report only DTW for XTPW06, XTPW07, and XTPW08. EAH 3/20/23

This report was revised on April 3, 2023 per Eric Bauer (Ramboll)'s request. The reason for the revision is to correct the Turbidity value for G113 and correct the collection time for XTPW02. XPW02 field data is not reported due to data loss/override with XTPW02 field measurements. Please replace report dated March 23, 2023 with this report. EAH 4/3/23

JOP_257_402 is included in this report. EAH 4/10/23

Locations

<u>Collinsville</u>	<u>Springfield</u>	<u>Kansas City</u>
Address 5445 Horseshoe Lake Road Collinsville, IL 62234-7425	Address 3920 Pintail Dr Springfield, IL 62711-9415	Address 8421 Nieman Road Lenexa, KS 66214
Phone (618) 344-1004	Phone (217) 698-1004	Phone (913) 541-1998
Fax (618) 344-1005	Fax (217) 698-1005	Fax (913) 541-1998
Email jhriley@teklabinc.com	Email KKlostermann@teklabinc.com	Email jhriley@teklabinc.com
<u>Collinsville Air</u>	<u>Chicago</u>	
Address 5445 Horseshoe Lake Road Collinsville, IL 62234-7425	Address 1319 Butterfield Rd. Downers Grove, IL 60515	
Phone (618) 344-1004	Phone (630) 324-6855	
Fax (618) 344-1005	Fax	
Email EHurley@teklabinc.com	Email arenner@teklabinc.com	



Accreditations

<http://www.teklabinc.com/>

Client: Vistra Energy
Client Project: JOP-23Q1

Work Order: 23021699
Report Date: 10-Apr-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

Lab ID: 23021699-012

Client Sample ID: G102

Matrix: GROUNDWATER

Collection Date: 03/10/2023 11:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		58.05	ft	1	03/10/2023 11:56	R326138
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		49.2	NTU	1	03/10/2023 11:56	R326138
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		112.1	mV	1	03/10/2023 11:56	R326138
STANDARD METHODS 2510 B FIELD								
Conductivity	*	1		438.6	µS/cm @25C	1	03/10/2023 11:56	R326138
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		15.4	°C	1	03/10/2023 11:56	R326138
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		6.97	mg/L	1	03/10/2023 11:56	R326138
SW-846 9040B FIELD								
pH	*	1.00		6.31		1	03/10/2023 11:56	R326138
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		115	mg/L	1	03/13/2023 11:55	R325940
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	03/13/2023 11:55	R325940
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		234	mg/L	1	03/14/2023 11:33	R326043
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		40	mg/L	1	03/15/2023 16:30	R326055
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.18	mg/L	1	03/14/2023 12:10	R325967
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		6	mg/L	1	03/15/2023 16:30	R326070
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		9.42	mg/L	1	03/14/2023 20:33	203823
Magnesium	NELAP	0.0500		3.60	mg/L	1	03/14/2023 20:33	203823
Potassium	NELAP	0.100		0.569	mg/L	1	03/14/2023 20:33	203823
Sodium	NELAP	0.0500		55.3	mg/L	1	03/14/2023 20:33	203823
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Boron	NELAP	0.025	J	0.020	mg/L	5	03/18/2023 3:16	203823



Laboratory Results

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

Lab ID: 23021699-013

Client Sample ID: G105

Matrix: GROUNDWATER

Collection Date: 03/10/2023 12:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		54.78	ft	1	03/10/2023 12:17	R326138
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		2.9	NTU	1	03/10/2023 12:17	R326138
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		145.7	mV	1	03/10/2023 12:17	R326138
STANDARD METHODS 2510 B FIELD								
Conductivity	*	1		510	µS/cm @25C	1	03/10/2023 12:17	R326138
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		16.3	°C	1	03/10/2023 12:17	R326138
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		7.94	mg/L	1	03/10/2023 12:17	R326138
SW-846 9040B FIELD								
pH	*	1.00		6.03		1	03/10/2023 12:17	R326138
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		113	mg/L	1	03/13/2023 12:00	R325940
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	03/13/2023 12:00	R325940
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		66	mg/L	1	03/14/2023 11:34	R326043
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		12	mg/L	1	03/15/2023 16:38	R326055
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.13	mg/L	1	03/14/2023 12:12	R325967
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		30	mg/L	1	03/15/2023 16:38	R326070
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		23.4	mg/L	1	03/14/2023 20:36	203823
Magnesium	NELAP	0.0500		8.78	mg/L	1	03/14/2023 20:36	203823
Potassium	NELAP	0.100		0.376	mg/L	1	03/14/2023 20:36	203823
Sodium	NELAP	0.0500		40.6	mg/L	1	03/14/2023 20:36	203823
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Boron	NELAP	0.025	J	0.011	mg/L	5	03/18/2023 3:20	203823



Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

Lab ID: 23021699-014

Client Sample ID: G107

Matrix: GROUNDWATER

Collection Date: 03/10/2023 12:39

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		52.15	ft	1	03/10/2023 12:39	R326138
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		24.6	NTU	1	03/10/2023 12:39	R326138
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		126.5	mV	1	03/10/2023 12:39	R326138
STANDARD METHODS 2510 B FIELD								
Conductivity	*	1		1129	µS/cm @25C	1	03/10/2023 12:39	R326138
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		15.9	°C	1	03/10/2023 12:39	R326138
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		4.10	mg/L	1	03/10/2023 12:39	R326138
SW-846 9040B FIELD								
pH	*	1.00		6.42		1	03/10/2023 12:39	R326138
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		253	mg/L	1	03/13/2023 12:06	R325940
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	03/13/2023 12:06	R325940
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		500	mg/L	1	03/14/2023 11:34	R326043
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		42	mg/L	1	03/15/2023 16:46	R326055
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.15	mg/L	1	03/14/2023 12:14	R325967
SW-846 9251 (TOTAL)								
Chloride	NELAP	40		102	mg/L	10	03/15/2023 16:52	R326070
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		84.7	mg/L	1	03/14/2023 14:33	203826
Magnesium	NELAP	0.0500		20.6	mg/L	1	03/14/2023 14:33	203826
Potassium	NELAP	0.100		2.98	mg/L	1	03/14/2023 14:33	203826
Sodium	NELAP	0.0500		61.0	mg/L	1	03/14/2023 14:33	203826
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Boron	NELAP	0.025	J	0.023	mg/L	5	03/15/2023 1:30	203826



Laboratory Results

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

Lab ID: 23021699-015

Client Sample ID: G109

Matrix: GROUNDWATER

Collection Date: 03/10/2023 13:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		50.42	ft	1	03/10/2023 13:08	R326138
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		29.8	NTU	1	03/10/2023 13:08	R326138
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		134.9	mV	1	03/10/2023 13:08	R326138
STANDARD METHODS 2510 B FIELD								
Conductivity	*	1		524	µS/cm @25C	1	03/10/2023 13:08	R326138
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		16.1	°C	1	03/10/2023 13:08	R326138
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		5.18	mg/L	1	03/10/2023 13:08	R326138
SW-846 9040B FIELD								
pH	*	1.00		6.32		1	03/10/2023 13:08	R326138
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		151	mg/L	1	03/13/2023 12:12	R325940
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	03/13/2023 12:12	R325940
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		246	mg/L	1	03/14/2023 11:34	R326043
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		37	mg/L	1	03/15/2023 16:54	R326055
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.17	mg/L	1	03/14/2023 12:16	R325967
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		7	mg/L	1	03/15/2023 16:54	R326070
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		27.0	mg/L	1	03/14/2023 14:34	203826
Magnesium	NELAP	0.0500		7.70	mg/L	1	03/14/2023 14:34	203826
Potassium	NELAP	0.100		4.08	mg/L	1	03/14/2023 14:34	203826
Sodium	NELAP	0.0500		42.6	mg/L	1	03/14/2023 14:34	203826
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Boron	NELAP	0.025	J	0.018	mg/L	5	03/15/2023 2:21	203826



Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

Lab ID: 23021699-038

Client Sample ID: SG02

Matrix: GROUNDWATER

Collection Date: 03/11/2023 17:51

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		286.15	ft	1	03/11/2023 17:51	R326138



Client: Vistra Energy
Client Project: JOP-23Q1
Lab ID: 23021699-071
Matrix: AQUEOUS

Work Order: 23021699
Report Date: 10-Apr-23
Client Sample ID: Field Blank
Collection Date: 03/10/2023 17:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		1	mg/L	1	03/13/2023 16:36	R325940
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		0	mg/L	1	03/13/2023 16:36	R325940
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		< 20	mg/L	1	03/15/2023 13:25	R326106
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	03/16/2023 18:01	R326131
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		< 0.10	mg/L	1	03/14/2023 12:43	R325967
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		< 4	mg/L	1	03/16/2023 18:01	R326143
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		< 0.100	mg/L	1	03/15/2023 19:06	203876
Magnesium	NELAP	0.0500		< 0.0500	mg/L	1	03/15/2023 19:06	203876
Potassium	NELAP	0.10	J	0.082	mg/L	1	03/15/2023 19:06	203876
Sodium	NELAP	0.0500		< 0.0500	mg/L	1	03/15/2023 19:06	203876
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Boron	NELAP	0.025	J	0.015	mg/L	5	03/18/2023 1:40	203876



Sample Summary

<http://www.teklabinc.com/>

Client: Vistra Energy
Client Project: JOP-23Q1

Work Order: 23021699
Report Date: 10-Apr-23

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
23021699-012	G102	Groundwater	2	03/10/2023 11:56
23021699-013	G105	Groundwater	2	03/10/2023 12:17
23021699-014	G107	Groundwater	2	03/10/2023 12:39
23021699-015	G109	Groundwater	2	03/10/2023 13:08
23021699-038	SG02	Groundwater	1	03/11/2023 17:51
23021699-071	Field Blank	Aqueous	2	03/10/2023 17:30



Dates Report

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: **23021699**

Client Project: **JOP-23Q1**

Report Date: **10-Apr-23**

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
23021699-012A	G102	03/10/2023 11:56	03/11/2023 8:00		
	Field Elevation Measurements				03/10/2023 11:56
	Standard Methods 2130 B Field				03/10/2023 11:56
	Standard Methods 18th Ed. 2580 B Field				03/10/2023 11:56
	Standard Methods 2320 B (Total) 1997, 2011				03/13/2023 11:55
	Standard Methods 2320 B 1997, 2011				03/13/2023 11:55
	Standard Methods 2510 B Field				03/10/2023 11:56
	Standard Methods 2540 C (Total) 1997, 2011				03/14/2023 11:33
	Standard Methods 2550 B Field				03/10/2023 11:56
	Standard Methods 4500-O G Field				03/10/2023 11:56
	SW-846 9036 (Total)				03/15/2023 16:30
	SW-846 9040B Field				03/10/2023 11:56
	SW-846 9214 (Total)				03/14/2023 12:10
	SW-846 9251 (Total)				03/15/2023 16:30
23021699-012B	G102	03/10/2023 11:56	03/11/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/13/2023 10:58	03/14/2023 20:33
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/13/2023 10:58	03/14/2023 14:13
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/13/2023 10:58	03/15/2023 19:53
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/13/2023 10:58	03/18/2023 3:16
23021699-013A	G105	03/10/2023 12:17	03/11/2023 8:00		
	Field Elevation Measurements				03/10/2023 12:17
	Standard Methods 2130 B Field				03/10/2023 12:17
	Standard Methods 18th Ed. 2580 B Field				03/10/2023 12:17
	Standard Methods 2320 B (Total) 1997, 2011				03/13/2023 12:00
	Standard Methods 2320 B 1997, 2011				03/13/2023 12:00
	Standard Methods 2510 B Field				03/10/2023 12:17
	Standard Methods 2540 C (Total) 1997, 2011				03/14/2023 11:34
	Standard Methods 2550 B Field				03/10/2023 12:17
	Standard Methods 4500-O G Field				03/10/2023 12:17
	SW-846 9036 (Total)				03/15/2023 16:38
	SW-846 9040B Field				03/10/2023 12:17
	SW-846 9214 (Total)				03/14/2023 12:12
	SW-846 9251 (Total)				03/15/2023 16:38
23021699-013B	G105	03/10/2023 12:17	03/11/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/13/2023 10:58	03/14/2023 20:36
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/13/2023 10:58	03/14/2023 14:19
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/13/2023 10:58	03/15/2023 20:00



Dates Report

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: **23021699**

Client Project: **JOP-23Q1**

Report Date: **10-Apr-23**

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name				Prep Date/Time	Analysis Date/Time
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/13/2023 10:58	03/18/2023 3:20
23021699-014A	G107	03/10/2023 12:39	03/11/2023 8:00		
	Field Elevation Measurements				03/10/2023 12:39
	Standard Methods 2130 B Field				03/10/2023 12:39
	Standard Methods 18th Ed. 2580 B Field				03/10/2023 12:39
	Standard Methods 2320 B (Total) 1997, 2011				03/13/2023 12:06
	Standard Methods 2320 B 1997, 2011				03/13/2023 12:06
	Standard Methods 2510 B Field				03/10/2023 12:39
	Standard Methods 2540 C (Total) 1997, 2011				03/14/2023 11:34
	Standard Methods 2550 B Field				03/10/2023 12:39
	Standard Methods 4500-O G Field				03/10/2023 12:39
	SW-846 9036 (Total)				03/15/2023 16:46
	SW-846 9040B Field				03/10/2023 12:39
	SW-846 9214 (Total)				03/14/2023 12:14
	SW-846 9251 (Total)				03/15/2023 16:52
23021699-014B	G107	03/10/2023 12:39	03/11/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/13/2023 11:47	03/14/2023 14:33
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/13/2023 11:47	03/15/2023 1:30
23021699-015A	G109	03/10/2023 13:08	03/11/2023 8:00		
	Field Elevation Measurements				03/10/2023 13:08
	Standard Methods 2130 B Field				03/10/2023 13:08
	Standard Methods 18th Ed. 2580 B Field				03/10/2023 13:08
	Standard Methods 2320 B (Total) 1997, 2011				03/13/2023 12:12
	Standard Methods 2320 B 1997, 2011				03/13/2023 12:12
	Standard Methods 2510 B Field				03/10/2023 13:08
	Standard Methods 2540 C (Total) 1997, 2011				03/14/2023 11:34
	Standard Methods 2550 B Field				03/10/2023 13:08
	Standard Methods 4500-O G Field				03/10/2023 13:08
	SW-846 9036 (Total)				03/15/2023 16:54
	SW-846 9040B Field				03/10/2023 13:08
	SW-846 9214 (Total)				03/14/2023 12:16
	SW-846 9251 (Total)				03/15/2023 16:54
23021699-015B	G109	03/10/2023 13:08	03/11/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/13/2023 11:47	03/14/2023 14:34
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/13/2023 11:47	03/15/2023 2:21
23021699-038A	SG02	03/11/2023 17:51	03/11/2023 8:00		
	Field Elevation Measurements				03/11/2023 17:51



Dates Report

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
23021699-071A	Field Blank	03/10/2023 17:30	03/11/2023 8:00		
	Standard Methods 2320 B (Total) 1997, 2011				03/13/2023 16:36
	Standard Methods 2320 B 1997, 2011				03/13/2023 16:36
	Standard Methods 2540 C (Total) 1997, 2011				03/15/2023 13:25
	SW-846 9036 (Total)				03/16/2023 18:01
	SW-846 9214 (Total)				03/14/2023 12:43
	SW-846 9251 (Total)				03/16/2023 18:01
23021699-071B	Field Blank	03/10/2023 17:30	03/11/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/14/2023 15:03	03/15/2023 19:06
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/14/2023 15:03	03/16/2023 5:23
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/14/2023 15:03	03/16/2023 14:39
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/14/2023 15:03	03/18/2023 1:40
	SW-846 7470A (Total)			03/14/2023 8:27	03/14/2023 14:47



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

STANDARD METHODS 2510 B FIELD

Batch R326138 SampType: LCS Units $\mu\text{S/cm @25C}$

SampID: LCS-R326138

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Conductivity	*	1		1412	1409	0	100.2	90	110	03/08/2023
Conductivity	*	1		1487	1409	0	105.5	90	110	03/09/2023
Conductivity	*	1		1382	1409	0	98.1	90	110	03/10/2023
Conductivity	*	1		1411	1409	0	100.1	90	110	03/07/2023

SW-846 9040B FIELD

Batch R326138 SampType: LCS Units

SampID: LCS-R326138

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
pH	*	1.00		7.10	7.000	0	101.4	98.57	101.4	03/07/2023
pH	*	1.00		7.00	7.000	0	100.0	98.57	101.4	03/08/2023
pH	*	1.00		7.04	7.000	0	100.6	98.57	101.4	03/09/2023
pH	*	1.00		7.05	7.000	0	100.7	98.57	101.4	03/10/2023

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R325983 SampType: MBLK Units mg/L

SampID: MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/13/2023
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/13/2023

Batch R325983 SampType: LCS Units mg/L

SampID: LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Dissolved Solids		20		946	1000	0	94.6	90	110	03/13/2023
Total Dissolved Solids		20		922	1000	0	92.2	90	110	03/13/2023

Batch R325983 SampType: DUP Units mg/L

SampID: 23021699-001ADUP

RPD Limit: 5

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids		20		296				308.0	3.97	03/13/2023

Batch R325983 SampType: DUP Units mg/L

SampID: 23021699-019ADUP

RPD Limit: 5

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids		20		362				362.0	0.00	03/13/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R325983		SampType: DUP		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: 23021699-050ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20		440				452.0	2.69	03/13/2023	

Batch R325983		SampType: DUP		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: 23021699-058ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20		894				904.0	1.11	03/13/2023	

Batch R326043		SampType: MBLK		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/14/2023	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/14/2023	

Batch R326043		SampType: LCS		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		960	1000	0	96.0	90	110	03/14/2023	
Total Dissolved Solids		20		962	1000	0	96.2	90	110	03/14/2023	

Batch R326043		SampType: DUP		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: 23021699-007ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20		630				612.0	2.90	03/14/2023	

Batch R326043		SampType: DUP		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: 23021699-032ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20		694				694.0	0.00	03/14/2023	

Batch R326106		SampType: MBLK		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/15/2023	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/15/2023	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/15/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R326106		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		942	1000	0	94.2	90	110	03/15/2023	
Total Dissolved Solids		20		920	1000	0	92.0	90	110	03/15/2023	
Total Dissolved Solids		20	S	868	1000	0	86.8	90	110	03/15/2023	

Batch R326106		SampType: DUP		Units mg/L							RPD Limit: 5	Date Analyzed
SampID: 23021699-034ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids		20		292				292.0	0.00	03/15/2023		

Batch R326106		SampType: DUP		Units mg/L							RPD Limit: 5	Date Analyzed
SampID: 23021699-061ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids		50		4440				4455	0.34	03/15/2023		

Batch R326156		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/16/2023	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	03/16/2023	

Batch R326156		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		930	1000	0	93.0	90	110	03/16/2023	
Total Dissolved Solids		20		908	1000	0	90.8	90	110	03/16/2023	

Batch R326156		SampType: DUP		Units mg/L							RPD Limit: 5	Date Analyzed
SampID: 23021699-072ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids		20		288				292.0	1.38	03/16/2023		

SW-846 9036 (TOTAL)

Batch R326055		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	03/15/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 9036 (TOTAL)

Batch R326055		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		20	20.00	0	101.3	90	110	03/15/2023	

Batch R326055		SampType: MS		Units mg/L							
SampID: 23021699-011AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		20		74	40.00	28.15	113.9	85	115	03/15/2023	

Batch R326055		SampType: MSD		Units mg/L							
SampID: 23021699-011AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		20		73	40.00	28.15	113.3	73.71	0.31	03/15/2023	

Batch R326055		SampType: MS		Units mg/L							
SampID: 23021699-019AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		35	20.00	13.10	108.0	85	115	03/15/2023	

Batch R326055		SampType: MSD		Units mg/L							
SampID: 23021699-019AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		10		35	20.00	13.10	107.8	34.70	0.09	03/15/2023	

Batch R326055		SampType: MS		Units mg/L							
SampID: 23021699-020AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		33	20.00	10.05	114.6	85	115	03/15/2023	

Batch R326055		SampType: MSD		Units mg/L							
SampID: 23021699-020AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		10	S	33	20.00	10.05	115.7	32.98	0.63	03/15/2023	

Batch R326131		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	03/16/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 9036 (TOTAL)

Batch R326131		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		22	20.00	0	109.6	90	110	03/16/2023	

Batch R326131		SampType: MS		Units mg/L							
SampID: 23021699-039AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		41	20.00	19.51	107.3	85	115	03/16/2023	

Batch R326131		SampType: MSD		Units mg/L							
SampID: 23021699-039AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		10		41	20.00	19.51	109.3	40.97	0.95	03/16/2023	

Batch R326131		SampType: MS		Units mg/L							
SampID: 23021699-042AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		32	20.00	12.65	97.9	85	115	03/16/2023	

Batch R326131		SampType: MSD		Units mg/L							
SampID: 23021699-042AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		10		34	20.00	12.65	106.0	32.23	4.93	03/16/2023	

Batch R326131		SampType: MS		Units mg/L							
SampID: 23021699-048AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		31	20.00	10.04	106.6	85	115	03/16/2023	

Batch R326131		SampType: MSD		Units mg/L							
SampID: 23021699-048AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		10		30	20.00	10.04	101.2	31.37	3.54	03/16/2023	

Batch R326210		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	03/20/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 9036 (TOTAL)

Batch R326210		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		22	20.00	0	108.4	90	110	03/20/2023	

Batch R326210		SampType: MS		Units mg/L							
SampID: 23021699-056AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		371	200.0	156.0	107.3	85	115	03/20/2023	

Batch R326210		SampType: MSD		Units mg/L							RPD Limit: 10
SampID: 23021699-056AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		373	200.0	156.0	108.6	370.7	0.69	03/20/2023	

SW-846 9214 (TOTAL)

Batch R325967		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0370	0	0	-100	100	03/14/2023	

Batch R325967		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		0.94	1.000	0	94.4	90	110	03/14/2023	

Batch R325967		SampType: MS		Units mg/L							
SampID: 23021699-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.08	2.000	0.1950	94.2	75	125	03/14/2023	

Batch R325967		SampType: MSD		Units mg/L							RPD Limit: 15
SampID: 23021699-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.03	2.000	0.1950	91.9	2.080	2.29	03/14/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 9214 (TOTAL)

Batch R325967		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-021AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.23	2.000	0.3080	96.1	75	125	03/14/2023	

Batch R325967		SampType: MSD		Units mg/L		RPD Limit: 15					Date Analyzed
SampID: 23021699-021AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		2.21	2.000	0.3080	95.2	2.230	0.86	03/14/2023	

Batch R325967		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-023AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.05	2.000	0.2180	91.6	75	125	03/14/2023	

Batch R325967		SampType: MSD		Units mg/L		RPD Limit: 15					Date Analyzed
SampID: 23021699-023AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		2.09	2.000	0.2180	93.4	2.050	1.74	03/14/2023	

Batch R325967		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-036AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.05	2.000	0.2440	90.4	75	125	03/14/2023	

Batch R325967		SampType: MSD		Units mg/L		RPD Limit: 15					Date Analyzed
SampID: 23021699-036AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		2.04	2.000	0.2440	89.6	2.052	0.83	03/14/2023	

Batch R325967		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-048AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.13	2.000	0.2180	95.7	75	125	03/14/2023	

Batch R325967		SampType: MSD		Units mg/L		RPD Limit: 15					Date Analyzed
SampID: 23021699-048AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		2.13	2.000	0.2180	95.7	2.132	0.00	03/14/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 9214 (TOTAL)

Batch R325967		SampType: MS		Units mg/L							Date
SampID: 23021699-057AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		Analyzed
Fluoride		0.10		1.94	2.000	0.1660	88.6	75	125		03/14/2023

Batch R325967		SampType: MSD		Units mg/L		RPD Limit: 15					Date
SampID: 23021699-057AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		Analyzed
Fluoride		0.10		2.04	2.000	0.1660	93.5	1.938	4.93		03/14/2023

Batch R325967		SampType: MS		Units mg/L							Date
SampID: 23021699-067AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		Analyzed
Fluoride		0.10		1.99	2.000	0.1700	91.1	75	125		03/14/2023

Batch R325967		SampType: MSD		Units mg/L		RPD Limit: 15					Date
SampID: 23021699-067AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		Analyzed
Fluoride		0.10		2.03	2.000	0.1700	92.8	1.992	1.69		03/14/2023

Batch R325967		SampType: MS		Units mg/L							Date
SampID: 23021699-071AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		Analyzed
Fluoride		0.10		1.80	2.000	0	89.8	75	125		03/14/2023

Batch R325967		SampType: MSD		Units mg/L		RPD Limit: 15					Date
SampID: 23021699-071AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		Analyzed
Fluoride		0.10		1.78	2.000	0	89.0	1.796	0.84		03/14/2023

Batch R325967		SampType: MS		Units mg/L							Date
SampID: 23021699-072AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		Analyzed
Fluoride		0.10		1.99	2.000	0.2210	88.6	75	125		03/14/2023

Batch R325967		SampType: MSD		Units mg/L		RPD Limit: 15					Date
SampID: 23021699-072AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		Analyzed
Fluoride		0.10		2.05	2.000	0.2210	91.4	1.992	2.82		03/14/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 9251 (TOTAL)

Batch R326070		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	03/15/2023	

Batch R326070		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		20	20.00	0	98.2	90	110	03/15/2023	

Batch R326070		SampType: MS		Units mg/L							
SampID: 23021699-011AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		23	20.00	3.540	95.6	85	115	03/15/2023	

Batch R326070		SampType: MSD		Units mg/L						RPD Limit: 15		Date Analyzed
SampID: 23021699-011AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		23	20.00	3.540	98.1	22.66	2.18	03/15/2023		

Batch R326070		SampType: MS		Units mg/L							
SampID: 23021699-019AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		41	20.00	22.94	90.7	85	115	03/15/2023	

Batch R326070		SampType: MSD		Units mg/L						RPD Limit: 15		Date Analyzed
SampID: 23021699-019AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		41	20.00	22.94	89.6	41.08	0.54	03/15/2023		

Batch R326070		SampType: MS		Units mg/L							
SampID: 23021699-020AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		28	20.00	7.750	99.6	85	115	03/15/2023	

Batch R326070		SampType: MSD		Units mg/L						RPD Limit: 15		Date Analyzed
SampID: 23021699-020AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		27	20.00	7.750	98.6	27.67	0.73	03/15/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 9251 (TOTAL)

Batch R326143		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	03/16/2023	

Batch R326143		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		20	20.00	0	99.4	90	110	03/16/2023	

Batch R326143		SampType: MS		Units mg/L							
SampID: 23021699-039AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		25	20.00	5.310	98.2	85	115	03/16/2023	

Batch R326143		SampType: MSD		Units mg/L							
SampID: 23021699-039AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4		25	20.00	5.310	98.8	24.94	0.56	03/16/2023	

Batch R326143		SampType: MS		Units mg/L							
SampID: 23021699-042AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		27	20.00	7.470	98.6	85	115	03/16/2023	

Batch R326143		SampType: MSD		Units mg/L							
SampID: 23021699-042AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4		27	20.00	7.470	97.0	27.20	1.18	03/16/2023	

Batch R326143		SampType: MS		Units mg/L							
SampID: 23021699-048AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		30	20.00	11.13	96.4	85	115	03/16/2023	

Batch R326143		SampType: MSD		Units mg/L							
SampID: 23021699-048AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4		30	20.00	11.13	95.0	30.41	0.96	03/16/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 9251 (TOTAL)

Batch R326213		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		< 1	0.5000	0	0	-100	100	03/20/2023	

Batch R326213		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		20	20.00	0	100.0	90	110	03/20/2023	

Batch R326213		SampType: MS		Units mg/L							
SampID: 23021699-056AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		26	20.00	6.710	97.8	85	115	03/20/2023	

Batch R326213		SampType: MSD		Units mg/L							
SampID: 23021699-056AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		1		26	20.00	6.710	97.5	26.26	0.19	03/20/2023	

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 203823		SampType: MBLK		Units mg/L							
SampID: MBLK-203823											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/14/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	03/14/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	03/14/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	03/14/2023	

Batch 203823		SampType: LCS		Units mg/L							
SampID: LCS-203823											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.45	2.500	0	98.1	85	115	03/14/2023	
Magnesium		0.0500		2.43	2.500	0	97.1	85	115	03/14/2023	
Potassium		0.100		2.38	2.500	0	95.3	85	115	03/14/2023	
Sodium		0.0500		2.18	2.500	0	87.0	85	115	03/14/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 203823		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		39.8	2.500	37.26	103.6	75	125	03/14/2023	
Magnesium		0.0500		12.9	2.500	10.30	102.8	75	125	03/14/2023	
Potassium		0.100		3.49	2.500	1.116	95.0	75	125	03/14/2023	
Sodium		0.0500		30.8	2.500	28.29	101.6	75	125	03/14/2023	

Batch 203823		SampType: MSD		Units mg/L							RPD Limit: 20	Date Analyzed
SampID: 23021699-002BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Calcium		0.100		40.2	2.500	37.26	117.6	39.85	0.87	03/14/2023		
Magnesium		0.0500		13.0	2.500	10.30	107.6	12.87	0.93	03/14/2023		
Potassium		0.100		3.51	2.500	1.116	95.7	3.490	0.51	03/14/2023		
Sodium		0.0500		30.9	2.500	28.29	104.4	30.83	0.23	03/14/2023		

Batch 203826		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-203826											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/14/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	03/14/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	03/14/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	03/14/2023	

Batch 203826		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-203826											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.46	2.500	0	98.3	85	115	03/14/2023	
Magnesium		0.0500		2.35	2.500	0	93.8	85	115	03/14/2023	
Potassium		0.100		2.51	2.500	0	100.6	85	115	03/14/2023	
Sodium		0.0500		2.32	2.500	0	92.8	85	115	03/14/2023	

Batch 203826		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-016BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100	S	78.8	2.500	75.62	126.0	75	125	03/14/2023	
Magnesium		0.0500		30.3	2.500	27.82	99.8	75	125	03/14/2023	
Potassium		0.100		3.60	2.500	0.9525	105.8	75	125	03/14/2023	
Sodium		0.0500		51.7	2.500	48.72	118.8	75	125	03/14/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 203826		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23021699-016BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	79.0	2.500	75.62	136.4	78.77	0.33	03/14/2023	
Magnesium		0.0500		30.4	2.500	27.82	104.2	30.31	0.36	03/14/2023	
Potassium		0.100		3.59	2.500	0.9525	105.5	3.597	0.19	03/14/2023	
Sodium		0.0500		51.6	2.500	48.72	116.0	51.69	0.14	03/14/2023	

Batch 203826		SampType: MS		Units mg/L				RPD Limit: 20			
SampID: 23021699-031BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		104	2.500	100.5	122.8	75	125	03/14/2023	
Magnesium		0.0500		28.9	2.500	26.46	96.7	75	125	03/14/2023	
Potassium		0.100		4.25	2.500	1.724	101.0	75	125	03/14/2023	
Sodium		0.0500		24.4	2.500	22.18	86.8	75	125	03/14/2023	

Batch 203826		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23021699-031BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	106	2.500	100.5	208.8	103.6	2.05	03/14/2023	
Magnesium		0.0500	S	29.6	2.500	26.46	126.4	28.88	2.54	03/14/2023	
Potassium		0.100		4.26	2.500	1.724	101.4	4.249	0.21	03/14/2023	
Sodium		0.0500		24.8	2.500	22.18	103.6	24.35	1.71	03/14/2023	

Batch 203827		SampType: MBLK		Units mg/L				RPD Limit: 20			
SampID: MBLK-203827											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/14/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	03/14/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	03/14/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	03/14/2023	

Batch 203827		SampType: LCS		Units mg/L				RPD Limit: 20			
SampID: LCS-203827											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.54	2.500	0	101.4	85	115	03/14/2023	
Magnesium		0.0500		2.41	2.500	0	96.4	85	115	03/14/2023	
Potassium		0.100		2.56	2.500	0	102.4	85	115	03/14/2023	
Sodium		0.0500		2.37	2.500	0	94.9	85	115	03/14/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 203827		SampType: MS		Units mg/L							
SampID: 23021699-042BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100	S	74.7	2.500	70.85	155.2	75	125	03/14/2023	
Magnesium		0.0500		19.6	2.500	17.04	100.9	75	125	03/14/2023	
Potassium		0.100		3.75	2.500	1.186	102.6	75	125	03/14/2023	
Sodium		0.0500		16.6	2.500	14.00	104.4	75	125	03/14/2023	

Batch 203827		SampType: MSD		Units mg/L							
SampID: 23021699-042BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100		73.9	2.500	70.85	122.8	74.73	1.09	03/14/2023	
Magnesium		0.0500		19.6	2.500	17.04	100.9	19.56	0.01	03/14/2023	
Potassium		0.100		3.73	2.500	1.186	101.6	3.750	0.61	03/14/2023	
Sodium		0.0500		16.2	2.500	14.00	89.6	16.61	2.25	03/14/2023	

Batch 203827		SampType: MS		Units mg/L							
SampID: 23021699-056BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		67.7	2.500	65.71	80.8	75	125	03/14/2023	
Magnesium		0.0500		22.6	2.500	20.45	87.7	75	125	03/14/2023	
Potassium		0.100		3.55	2.500	0.8968	106.1	75	125	03/14/2023	
Sodium		0.0500		78.4	2.500	75.26	124.0	75	125	03/14/2023	

Batch 203827		SampType: MSD		Units mg/L							
SampID: 23021699-056BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	66.7	2.500	65.71	38.4	67.73	1.58	03/14/2023	
Magnesium		0.0500		22.3	2.500	20.45	75.2	22.65	1.38	03/14/2023	
Potassium		0.100		3.52	2.500	0.8968	104.9	3.550	0.92	03/14/2023	
Sodium		0.0500	S	76.5	2.500	75.26	48.4	78.36	2.44	03/14/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 203876		SampType: MBLK		Units mg/L						
SampID: MBLK-203876										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/15/2023
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	04/03/2023
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	04/03/2023
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	03/15/2023
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	04/03/2023
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	03/15/2023
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	04/03/2023
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	03/15/2023

Batch 203876		SampType: LCS		Units mg/L						
SampID: LCS-203876										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		2.67	2.500	0	106.7	85	115	04/03/2023
Calcium		0.100		2.53	2.500	0	101.0	85	115	03/15/2023
Magnesium		0.0500		2.42	2.500	0	96.6	85	115	04/03/2023
Magnesium		0.0500		2.47	2.500	0	98.9	85	115	03/15/2023
Potassium		0.100		2.40	2.500	0	95.8	85	115	03/15/2023
Potassium		0.100		2.73	2.500	0	109.4	85	115	04/03/2023
Sodium		0.0500		2.27	2.500	0	90.7	85	115	03/15/2023
Sodium		0.0500		2.60	2.500	0	104.0	85	115	04/03/2023

Batch 203876		SampType: MS		Units mg/L						
SampID: 23021699-064BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100	S	255	2.500	247.5	288.0	75	125	03/15/2023
Magnesium		0.0500		2.56	2.500	0.09860	98.6	75	125	03/15/2023
Potassium		1.00		15.5	2.500	13.14	96.0	75	125	03/17/2023
Sodium		0.0500		7.86	2.500	5.349	100.4	75	125	03/15/2023

Batch 203876		SampType: MSD		Units mg/L						
SampID: 23021699-064BMDS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Calcium		0.100	S	252	2.500	247.5	200.0	254.7	0.87	03/15/2023
Magnesium		0.0500		2.54	2.500	0.09860	97.5	2.564	1.06	03/15/2023
Potassium		1.00		15.6	2.500	13.14	97.6	15.54	0.26	03/17/2023
Sodium		0.0500		7.78	2.500	5.349	97.1	7.859	1.05	03/15/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203823		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-203823											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	03/14/2023	
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	03/14/2023	
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	03/15/2023	
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	03/14/2023	
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	03/14/2023	
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	03/14/2023	
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	03/15/2023	
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	03/14/2023	
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	03/14/2023	
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	03/14/2023	
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	03/14/2023	
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	03/14/2023	
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	03/14/2023	
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	03/14/2023	
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	03/14/2023	

Batch 203823		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-203823											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.516	0.5000	0	103.1	80	120	03/14/2023	
Arsenic		0.0010		0.534	0.5000	0	106.7	80	120	03/14/2023	
Barium		0.0010		2.16	2.000	0	108.0	80	120	03/14/2023	
Beryllium		0.0010		0.0529	0.0500	0	105.8	80	120	03/14/2023	
Boron		0.0250		0.436	0.5000	0	87.2	80	120	03/18/2023	
Cadmium		0.0010		0.0522	0.0500	0	104.4	80	120	03/14/2023	
Chromium		0.0015		0.214	0.2000	0	107.0	80	120	03/14/2023	
Cobalt		0.0010		0.531	0.5000	0	106.2	80	120	03/14/2023	
Iron		0.0250		2.17	2.000	0	108.4	80	120	03/14/2023	
Lead		0.0010		0.536	0.5000	0	107.2	80	120	03/14/2023	
Lithium	*	0.0030		0.514	0.5000	0	102.9	80	120	03/15/2023	
Manganese		0.0020		0.532	0.5000	0	106.5	80	120	03/14/2023	
Molybdenum		0.0015		0.511	0.5000	0	102.2	80	120	03/14/2023	
Selenium		0.0010		0.506	0.5000	0	101.1	80	120	03/14/2023	
Thallium		0.0020		0.259	0.2500	0	103.4	80	120	03/14/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203823		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.507	0.5000	0	101.4	75	125	03/14/2023	
Arsenic		0.0010		0.514	0.5000	0	102.9	75	125	03/14/2023	
Barium		0.0010		2.13	2.000	0.1707	97.9	75	125	03/15/2023	
Beryllium		0.0010		0.0527	0.0500	0	105.4	75	125	03/14/2023	
Boron		0.0250		0.608	0.5000	0.02703	116.2	75	125	03/18/2023	
Cadmium		0.0010		0.0490	0.0500	0	98.0	75	125	03/14/2023	
Chromium		0.0015		0.197	0.2000	0	98.5	75	125	03/15/2023	
Cobalt		0.0010		0.490	0.5000	0	98.1	75	125	03/14/2023	
Lead		0.0010		0.496	0.5000	0	99.2	75	125	03/14/2023	
Lithium	*	0.0030		0.513	0.5000	0	102.5	75	125	03/15/2023	
Molybdenum		0.0015		0.484	0.5000	0	96.9	75	125	03/14/2023	
Selenium		0.0010		0.465	0.5000	0.001059	92.9	75	125	03/14/2023	
Thallium		0.0020		0.242	0.2500	0	97.0	75	125	03/14/2023	

Batch 203823		SampType: MSD		Units mg/L							RPD Limit: 20	Date Analyzed
SampID: 23021699-002BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Antimony		0.0010		0.504	0.5000	0	100.9	0.5072	0.55	03/14/2023		
Arsenic		0.0010		0.544	0.5000	0	108.9	0.5143	5.66	03/14/2023		
Barium		0.0010		2.09	2.000	0.1707	95.7	2.129	2.06	03/15/2023		
Beryllium		0.0010		0.0524	0.0500	0	104.8	0.05271	0.55	03/14/2023		
Boron		0.0250		0.564	0.5000	0.02703	107.4	0.6081	7.48	03/18/2023		
Cadmium		0.0010		0.0491	0.0500	0	98.1	0.04900	0.10	03/14/2023		
Chromium		0.0015		0.192	0.2000	0	96.1	0.1971	2.49	03/15/2023		
Cobalt		0.0010		0.505	0.5000	0	101.1	0.4905	3.01	03/14/2023		
Lead		0.0010		0.511	0.5000	0	102.1	0.4962	2.85	03/14/2023		
Lithium	*	0.0030		0.496	0.5000	0	99.2	0.5127	3.29	03/15/2023		
Molybdenum		0.0015		0.494	0.5000	0	98.8	0.4844	1.94	03/14/2023		
Selenium		0.0010		0.492	0.5000	0.001059	98.2	0.4655	5.56	03/14/2023		
Thallium		0.0020		0.251	0.2500	0	100.2	0.2424	3.33	03/14/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203826		SampType: MBLK		Units mg/L							
SampID: MBLK-203826											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	03/15/2023	
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	03/15/2023	
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	03/15/2023	
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	03/15/2023	
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	03/15/2023	
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	03/15/2023	
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	03/15/2023	
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	03/15/2023	
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	03/15/2023	
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	03/15/2023	
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	03/15/2023	
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	03/15/2023	
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	03/15/2023	
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	03/15/2023	
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	03/15/2023	

Batch 203826		SampType: LCS		Units mg/L							
SampID: LCS-203826											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.471	0.5000	0	94.2	80	120	03/15/2023	
Arsenic		0.0010		0.495	0.5000	0	99.1	80	120	03/15/2023	
Barium		0.0010		2.11	2.000	0	105.6	80	120	03/15/2023	
Beryllium		0.0010		0.0453	0.0500	0	90.6	80	120	03/15/2023	
Boron		0.0250		0.457	0.5000	0	91.5	80	120	03/15/2023	
Cadmium		0.0010		0.0469	0.0500	0	93.8	80	120	03/15/2023	
Chromium		0.0015		0.208	0.2000	0	103.8	80	120	03/15/2023	
Cobalt		0.0010		0.491	0.5000	0	98.2	80	120	03/15/2023	
Iron		0.0250		1.78	2.000	0	89.0	80	120	03/15/2023	
Lead		0.0010		0.473	0.5000	0	94.6	80	120	03/15/2023	
Lithium	*	0.0030		0.468	0.5000	0	93.5	80	120	03/15/2023	
Manganese		0.0020		0.473	0.5000	0	94.5	80	120	03/15/2023	
Molybdenum		0.0015		0.465	0.5000	0	93.0	80	120	03/15/2023	
Selenium		0.0010		0.460	0.5000	0	92.0	80	120	03/15/2023	
Thallium		0.0020		0.211	0.2500	0	84.3	80	120	03/15/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203826		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-016BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.509	0.5000	0	101.8	75	125	03/15/2023	
Arsenic		0.0010		0.509	0.5000	0	101.8	75	125	03/15/2023	
Barium		0.0010		2.27	2.000	0.01459	112.5	75	125	03/15/2023	
Beryllium		0.0010		0.0519	0.0500	0	103.9	75	125	03/15/2023	
Boron		0.0250		0.835	0.5000	0.3269	101.6	75	125	03/15/2023	
Cadmium		0.0010		0.0498	0.0500	0	99.5	75	125	03/15/2023	
Chromium		0.0015		0.206	0.2000	0.0007895	102.6	75	125	03/15/2023	
Cobalt		0.0010		0.462	0.5000	0.0009652	92.2	75	125	03/15/2023	
Lead		0.0010		0.510	0.5000	0	102.0	75	125	03/15/2023	
Lithium	*	0.0030		0.541	0.5000	0.003563	107.5	75	125	03/15/2023	
Molybdenum		0.0015		0.482	0.5000	0	96.3	75	125	03/15/2023	
Selenium		0.0010		0.472	0.5000	0.003426	93.8	75	125	03/15/2023	
Thallium		0.0020		0.231	0.2500	0	92.6	75	125	03/15/2023	

Batch 203826		SampType: MSD		Units mg/L							RPD Limit: 20	Date Analyzed
SampID: 23021699-016BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Antimony		0.0010		0.512	0.5000	0	102.4	0.5089	0.63	03/15/2023		
Arsenic		0.0010		0.523	0.5000	0	104.6	0.5089	2.77	03/15/2023		
Barium		0.0010		2.26	2.000	0.01459	112.4	2.265	0.15	03/15/2023		
Beryllium		0.0010		0.0518	0.0500	0	103.6	0.05194	0.26	03/15/2023		
Boron		0.0250		0.831	0.5000	0.3269	100.9	0.8348	0.42	03/15/2023		
Cadmium		0.0010		0.0497	0.0500	0	99.3	0.04976	0.20	03/15/2023		
Chromium		0.0015		0.218	0.2000	0.0007895	108.6	0.2059	5.69	03/15/2023		
Cobalt		0.0010		0.473	0.5000	0.0009652	94.3	0.4618	2.32	03/15/2023		
Lead		0.0010		0.509	0.5000	0	101.9	0.5099	0.10	03/15/2023		
Lithium	*	0.0030		0.535	0.5000	0.003563	106.3	0.5408	1.06	03/15/2023		
Molybdenum		0.0015		0.495	0.5000	0	98.9	0.4817	2.67	03/15/2023		
Selenium		0.0010		0.479	0.5000	0.003426	95.1	0.4723	1.39	03/15/2023		
Thallium		0.0020		0.238	0.2500	0	95.2	0.2315	2.76	03/15/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203826		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-031BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.496	0.5000	0	99.2	75	125	03/15/2023	
Arsenic		0.0010		0.522	0.5000	0.001496	104.1	75	125	03/15/2023	
Barium		0.0010		2.22	2.000	0.04626	108.4	75	125	03/15/2023	
Beryllium		0.0010		0.0505	0.0500	0	101.0	75	125	03/15/2023	
Boron		0.0250	S	7.08	0.5000	7.383	-60.5	75	125	03/15/2023	
Cadmium		0.0010		0.0486	0.0500	0	97.3	75	125	03/15/2023	
Chromium		0.0015		0.202	0.2000	0	101.0	75	125	03/15/2023	
Cobalt		0.0010		0.445	0.5000	0.0002949	88.9	75	125	03/15/2023	
Lead		0.0010		0.483	0.5000	0	96.6	75	125	03/15/2023	
Lithium	*	0.0030		0.523	0.5000	0.001807	104.2	75	125	03/15/2023	
Molybdenum		0.0015		0.503	0.5000	0.001946	100.2	75	125	03/15/2023	
Selenium		0.0010		0.478	0.5000	0	95.7	75	125	03/15/2023	
Thallium		0.0020		0.230	0.2500	0	92.0	75	125	03/15/2023	

Batch 203826		SampType: MSD		Units mg/L							RPD Limit: 20		Date Analyzed
SampID: 23021699-031BMSD													
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed			
Antimony		0.0010		0.476	0.5000	0	95.3	0.4960	4.03	03/15/2023			
Arsenic		0.0010		0.496	0.5000	0.001496	99.0	0.5222	5.09	03/15/2023			
Barium		0.0010		2.17	2.000	0.04626	106.3	2.215	1.97	03/15/2023			
Beryllium		0.0010		0.0487	0.0500	0	97.4	0.05049	3.60	03/15/2023			
Boron		0.0250	S	7.07	0.5000	7.383	-62.8	7.081	0.16	03/15/2023			
Cadmium		0.0010		0.0467	0.0500	0	93.3	0.04863	4.11	03/15/2023			
Chromium		0.0015		0.196	0.2000	0	97.8	0.2021	3.27	03/15/2023			
Cobalt		0.0010		0.422	0.5000	0.0002949	84.3	0.4449	5.38	03/15/2023			
Lead		0.0010		0.493	0.5000	0	98.6	0.4830	2.03	03/15/2023			
Lithium	*	0.0030		0.503	0.5000	0.001807	100.2	0.5227	3.86	03/15/2023			
Molybdenum		0.0015		0.510	0.5000	0.001946	101.6	0.5029	1.43	03/15/2023			
Selenium		0.0010		0.459	0.5000	0	91.9	0.4785	4.08	03/15/2023			
Thallium		0.0020		0.229	0.2500	0	91.7	0.2300	0.31	03/15/2023			



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203827 SampType: MBLK Units mg/L
SampID: MBLK-203827

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	03/15/2023
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	03/15/2023
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	03/15/2023
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	03/15/2023
Boron		0.0250		< 0.0250	0.0150	0	0	-100	100	03/15/2023
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	03/15/2023
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	03/15/2023
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	03/15/2023
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	03/15/2023
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	03/15/2023
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	03/15/2023
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	03/15/2023
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	03/15/2023
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	03/15/2023
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	03/15/2023

Batch 203827 SampType: LCS Units mg/L
SampID: LCS-203827

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.496	0.5000	0	99.1	80	120	03/15/2023
Arsenic		0.0010		0.502	0.5000	0	100.4	80	120	03/15/2023
Barium		0.0010		2.28	2.000	0	113.9	80	120	03/15/2023
Beryllium		0.0010		0.0501	0.0500	0	100.3	80	120	03/15/2023
Boron		0.0250		0.519	0.5000	0	103.9	80	120	03/15/2023
Cadmium		0.0010		0.0490	0.0500	0	98.1	80	120	03/15/2023
Chromium		0.0015		0.212	0.2000	0	105.9	80	120	03/15/2023
Cobalt		0.0010		0.464	0.5000	0	92.9	80	120	03/15/2023
Iron		0.0250		1.82	2.000	0	90.9	80	120	03/15/2023
Lead		0.0010		0.510	0.5000	0	102.1	80	120	03/15/2023
Lithium	*	0.0030		0.518	0.5000	0	103.7	80	120	03/15/2023
Manganese		0.0020		0.500	0.5000	0	100.0	80	120	03/15/2023
Molybdenum		0.0015		0.485	0.5000	0	97.0	80	120	03/15/2023
Selenium		0.0010		0.471	0.5000	0	94.1	80	120	03/15/2023
Thallium		0.0020		0.226	0.2500	0	90.2	80	120	03/15/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203827		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-042BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.511	0.5000	0	102.2	75	125	03/15/2023	
Arsenic		0.0010		0.511	0.5000	0.003986	101.5	75	125	03/15/2023	
Barium		0.0010		3.65	2.000	1.171	124.1	75	125	03/15/2023	
Beryllium		0.0010		0.0496	0.0500	0	99.2	75	125	03/15/2023	
Boron		0.0250		0.560	0.5000	0.09146	93.6	75	125	03/15/2023	
Cadmium		0.0010		0.0499	0.0500	0	99.7	75	125	03/15/2023	
Chromium		0.0015		0.214	0.2000	0	107.1	75	125	03/15/2023	
Cobalt		0.0010		0.513	0.5000	0.003415	101.9	75	125	03/15/2023	
Iron		0.0250		4.19	2.000	2.338	92.8	75	125	03/15/2023	
Lithium	*	0.0030		0.509	0.5000	0.003137	101.3	75	125	03/15/2023	
Manganese		0.0020		3.87	0.5000	3.314	111.0	75	125	03/15/2023	
Molybdenum		0.0015		0.495	0.5000	0.003366	98.4	75	125	03/15/2023	
Selenium		0.0010		0.457	0.5000	0	91.5	75	125	03/15/2023	
Thallium		0.0020		0.232	0.2500	0	92.6	75	125	03/15/2023	

Batch 203827		SampType: MSD		Units mg/L							RPD Limit: 20	Date Analyzed
SampID: 23021699-042BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Antimony		0.0010		0.493	0.5000	0	98.6	0.5112	3.58	03/15/2023		
Arsenic		0.0010		0.512	0.5000	0.003986	101.5	0.5113	0.04	03/15/2023		
Barium		0.0010		3.57	2.000	1.171	119.9	3.653	2.30	03/15/2023		
Beryllium		0.0010		0.0493	0.0500	0	98.7	0.04961	0.54	03/15/2023		
Boron		0.0250		0.570	0.5000	0.09146	95.7	0.5596	1.83	03/15/2023		
Cadmium		0.0010		0.0496	0.0500	0	99.2	0.04986	0.55	03/15/2023		
Chromium		0.0015		0.200	0.2000	0	100.1	0.2142	6.74	03/15/2023		
Cobalt		0.0010		0.490	0.5000	0.003415	97.4	0.5128	4.50	03/15/2023		
Iron		0.0250		3.96	2.000	2.338	81.1	4.193	5.73	03/15/2023		
Lithium	*	0.0030		0.498	0.5000	0.003137	99.0	0.5094	2.22	03/15/2023		
Manganese		0.0020		3.79	0.5000	3.314	94.2	3.869	2.20	03/15/2023		
Molybdenum		0.0015		0.481	0.5000	0.003366	95.6	0.4954	2.89	03/15/2023		
Selenium		0.0010		0.456	0.5000	0	91.3	0.4575	0.22	03/15/2023		
Thallium		0.0020		0.236	0.2500	0	94.3	0.2316	1.72	03/15/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203827		SampType: MS		Units mg/L							
SampID: 23021699-056BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.512	0.5000	0	102.4	75	125	03/15/2023	
Arsenic		0.0010		0.497	0.5000	0.001119	99.3	75	125	03/15/2023	
Barium		0.0010		2.44	2.000	0.1494	114.4	75	125	03/15/2023	
Beryllium		0.0020		0.0506	0.0500	0	101.2	75	125	03/16/2023	
Boron		0.0500		0.547	0.5000	0.02291	104.9	75	125	03/16/2023	
Cadmium		0.0010		0.0499	0.0500	0	99.7	75	125	03/15/2023	
Chromium		0.0030		0.199	0.2000	0.002338	98.6	75	125	03/16/2023	
Cobalt		0.0020		0.509	0.5000	0.003590	101.1	75	125	03/16/2023	
Iron		0.0500		4.84	2.000	2.740	105.0	75	125	03/16/2023	
Lead		0.0010		0.491	0.5000	0.001024	98.1	75	125	03/15/2023	
Lithium	*	0.0060		0.540	0.5000	0	107.9	75	125	03/16/2023	
Manganese		0.0040		1.76	0.5000	1.295	92.0	75	125	03/16/2023	
Molybdenum		0.0015		0.496	0.5000	0.003114	98.5	75	125	03/15/2023	
Selenium		0.0010		0.451	0.5000	0	90.3	75	125	03/15/2023	
Thallium		0.0020		0.223	0.2500	0	89.3	75	125	03/15/2023	

Batch 203827		SampType: MSD		Units mg/L							
SampID: 23021699-056BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Antimony		0.0010		0.502	0.5000	0	100.4	0.5119	1.95	03/15/2023	
Arsenic		0.0010		0.508	0.5000	0.001119	101.3	0.4974	2.04	03/15/2023	
Barium		0.0010		2.42	2.000	0.1494	113.5	2.438	0.76	03/15/2023	
Beryllium		0.0020		0.0524	0.0500	0	104.8	0.05060	3.45	03/16/2023	
Boron		0.0500		0.557	0.5000	0.02291	106.9	0.5472	1.86	03/16/2023	
Cadmium		0.0010		0.0495	0.0500	0	99.0	0.04987	0.75	03/15/2023	
Chromium		0.0030		0.201	0.2000	0.002338	99.4	0.1995	0.85	03/16/2023	
Cobalt		0.0020		0.515	0.5000	0.003590	102.2	0.5092	1.06	03/16/2023	
Iron		0.0500		5.07	2.000	2.740	116.3	4.840	4.56	03/16/2023	
Lead		0.0010		0.516	0.5000	0.001024	103.0	0.4914	4.91	03/15/2023	
Lithium	*	0.0060		0.551	0.5000	0	110.2	0.5397	2.11	03/16/2023	
Manganese		0.0040		1.79	0.5000	1.295	99.8	1.755	2.20	03/16/2023	
Molybdenum		0.0015		0.490	0.5000	0.003114	97.4	0.4959	1.21	03/15/2023	
Selenium		0.0010		0.461	0.5000	0	92.2	0.4514	2.09	03/15/2023	
Thallium		0.0020		0.238	0.2500	0	95.2	0.2234	6.34	03/15/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203876		SampType: MBLK		Units mg/L							
SampID: MBLK-203876											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	03/16/2023	
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	03/16/2023	
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	03/16/2023	
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	03/16/2023	
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	03/16/2023	
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	03/16/2023	
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	03/16/2023	
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	03/16/2023	
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	03/16/2023	
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	03/16/2023	
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	03/16/2023	
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	03/16/2023	
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	03/16/2023	
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	03/16/2023	
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	03/16/2023	

Batch 203876		SampType: LCS		Units mg/L							
SampID: LCS-203876											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.453	0.5000	0	90.6	80	120	03/16/2023	
Arsenic		0.0010		0.498	0.5000	0	99.7	80	120	03/16/2023	
Barium		0.0010		1.94	2.000	0	96.9	80	120	03/16/2023	
Beryllium		0.0010		0.0471	0.0500	0	94.2	80	120	03/16/2023	
Boron		0.0250		0.491	0.5000	0	98.2	80	120	03/16/2023	
Cadmium		0.0010		0.0459	0.0500	0	91.8	80	120	03/16/2023	
Chromium		0.0015		0.189	0.2000	0	94.5	80	120	03/16/2023	
Cobalt		0.0010		0.478	0.5000	0	95.5	80	120	03/16/2023	
Iron		0.0250		2.06	2.000	0	103.2	80	120	03/16/2023	
Lead		0.0010		0.482	0.5000	0	96.5	80	120	03/16/2023	
Lithium	*	0.0030		0.484	0.5000	0	96.9	80	120	03/16/2023	
Manganese		0.0020		0.474	0.5000	0	94.7	80	120	03/16/2023	
Molybdenum		0.0015		0.461	0.5000	0	92.3	80	120	03/16/2023	
Selenium		0.0010		0.472	0.5000	0	94.4	80	120	03/16/2023	
Thallium		0.0020		0.234	0.2500	0	93.6	80	120	03/16/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 203876		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-064BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.471	0.5000	0.002769	93.6	75	125	03/16/2023	
Arsenic		0.0010		0.528	0.5000	0.03604	98.5	75	125	03/16/2023	
Barium		0.0010		1.98	2.000	0.06293	96.1	75	125	03/16/2023	
Beryllium		0.0010		0.0495	0.0500	0	99.0	75	125	03/16/2023	
Boron		0.0250	S	29.8	0.5000	34.28	-896.5	75	125	03/18/2023	
Cadmium		0.0010		0.0466	0.0500	0	93.1	75	125	03/16/2023	
Chromium		0.0015		0.190	0.2000	0	94.8	75	125	03/16/2023	
Cobalt		0.0010		0.464	0.5000	0	92.8	75	125	03/16/2023	
Iron		0.0250		2.10	2.000	0.1209	98.9	75	125	03/16/2023	
Lead		0.0010		0.483	0.5000	0	96.7	75	125	03/16/2023	
Lithium	*	0.0030		0.619	0.5000	0.1186	100.1	75	125	03/16/2023	
Manganese		0.0020		0.478	0.5000	0.004777	94.7	75	125	03/16/2023	
Molybdenum		0.0015		0.742	0.5000	0.2405	100.3	75	125	03/16/2023	
Selenium		0.0010		0.540	0.5000	0.08217	91.6	75	125	03/16/2023	
Thallium		0.0020		0.235	0.2500	0	94.0	75	125	03/16/2023	

Batch 203876		SampType: MSD		Units mg/L							RPD Limit: 20	Date Analyzed
SampID: 23021699-064BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Antimony		0.0010		0.447	0.5000	0.002769	88.9	0.4709	5.19	03/16/2023		
Arsenic		0.0010		0.524	0.5000	0.03604	97.5	0.5284	0.94	03/16/2023		
Barium		0.0010		1.90	2.000	0.06293	91.8	1.984	4.39	03/16/2023		
Beryllium		0.0010		0.0487	0.0500	0	97.5	0.04951	1.59	03/16/2023		
Boron		0.0250	S	29.0	0.5000	34.28	-1064	29.80	2.86	03/18/2023		
Cadmium		0.0010		0.0446	0.0500	0	89.3	0.04656	4.21	03/16/2023		
Chromium		0.0015		0.185	0.2000	0	92.5	0.1897	2.48	03/16/2023		
Cobalt		0.0010		0.458	0.5000	0	91.7	0.4641	1.25	03/16/2023		
Iron		0.0250		2.20	2.000	0.1209	103.9	2.098	4.68	03/16/2023		
Lead		0.0010		0.480	0.5000	0	96.0	0.4834	0.73	03/16/2023		
Lithium	*	0.0030		0.623	0.5000	0.1186	101.0	0.6192	0.68	03/16/2023		
Manganese		0.0020		0.464	0.5000	0.004777	91.9	0.4784	2.96	03/16/2023		
Molybdenum		0.0015		0.720	0.5000	0.2405	95.9	0.7419	3.01	03/16/2023		
Selenium		0.0010		0.546	0.5000	0.08217	92.8	0.5400	1.10	03/16/2023		
Thallium		0.0020		0.233	0.2500	0	93.2	0.2351	0.85	03/16/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 7470A (TOTAL)

Batch 203832		SampType: MBLK		Units mg/L						
SampID: MBLK-203832										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	03/14/2023

Batch 203832		SampType: LCS		Units mg/L						
SampID: LCS-203832										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00456	0.0050	0	91.2	85	115	03/14/2023

Batch 203832		SampType: MS		Units mg/L						
SampID: 23021699-004BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00502	0.0050	0	100.4	75	125	03/14/2023

Batch 203832		SampType: MSD		Units mg/L						
SampID: 23021699-004BMDS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		0.00513	0.0050	0	102.6	0.005021	2.13	03/14/2023

Batch 203833		SampType: MBLK		Units mg/L						
SampID: MBLK-203833										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	03/14/2023

Batch 203833		SampType: LCS		Units mg/L						
SampID: LCS-203833										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00449	0.0050	0	89.8	85	115	03/14/2023

Batch 203833		SampType: MS		Units mg/L						
SampID: 23021699-025BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00461	0.0050	0.00009360	90.3	75	125	03/14/2023

Batch 203833		SampType: MSD		Units mg/L						
SampID: 23021699-025BMDS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		0.00432	0.0050	0.00009360	84.6	0.004610	6.40	03/14/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 7470A (TOTAL)

Batch 203833		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-029BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00511	0.0050	0	102.3	75	125	03/14/2023	

Batch 203833		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23021699-029BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		0.00502	0.0050	0	100.3	0.005114	1.93	03/14/2023		

Batch 203843		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-203843											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	03/14/2023	

Batch 203843		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-203843											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00504	0.0050	0	100.7	85	115	03/14/2023	

Batch 203843		SampType: MS		Units mg/L							Date Analyzed
SampID: 23021699-053BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00497	0.0050	0	99.5	75	125	03/14/2023	

Batch 203843		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23021699-053BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		0.00475	0.0050	0	95.1	0.004974	4.53	03/14/2023		

Batch 203858		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-203858											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	03/14/2023	

Batch 203858		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-203858											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00495	0.0050	0	99.1	85	115	03/14/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

SW-846 7470A (TOTAL)

Batch 203858		SampType: MS		Units mg/L						
SampID: 23021699-061BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00387	0.0050	0	77.4	75	125	03/14/2023

Batch 203858		SampType: MSD		Units mg/L						
SampID: 23021699-061BMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020	S	0.00365	0.0050	0	73.1	0.003870	5.76	03/14/2023

Batch 203858		SampType: MS		Units mg/L						
SampID: 23021699-072BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00498	0.0050	0	99.6	75	125	03/14/2023

Batch 203858		SampType: MSD		Units mg/L						
SampID: 23021699-072BMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		0.00510	0.0050	0	102.1	0.004979	2.49	03/14/2023



Receiving Check List

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: 23021699

Client Project: JOP-23Q1

Report Date: 10-Apr-23

Carrier: Joe Riley

Received By: TWM

Completed by:

Reviewed by:

On:

On:

13-Mar-23

13-Mar-23

Lindsey Maddox

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 2.4 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

pH strip #87147. - lmaddox - 3/13/2023 10:07:47 AM

Additional Nitric Acid (87873) was needed in XTPW08 upon arrival at the laboratory. - lmaddox - 3/13/2023 10:07:49 AM

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
JOPPA POWER PLANT LANDFILL

JOP-257-402

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 5	
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 UST RCRA OTHER	
Phone: (217) 753-8911	Fax:	Project Name:		Quote Reference:		Site Location	
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:		STATE: IL	
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE COC CODE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↓	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	JOP_257_401	JOP_257_402		JOP_845_403							
1	G01D		3/7/23	1017		2																			23021699-001
2	G02D		3/6/23	1427																					002
3	G03		3/9/23	0718																					003
4	G05		3/9/23	1105																					004
5	G06		3/9/23	1156																					005
6	G07		3/9/23	1228																					006
7	G08		3/9/23	1018																					007
8	G09		3/9/23	0947																					008
9	G09M		3/7/23	1643		0																			009
10	G10		3/8/23	1510		2																			010
11	G101		3/7/23	0947																					011
12	G102		3/10/23	1156																					012
13	G105		3/10/23	1217																					013
14	G107		3/10/23	1339																					014
15	G109		3/10/23	1309																					015
16	G11		3/4/23	1547																					016

ADDITIONAL COMMENTS: JOP-23Q1 Rev 1		RELINQUISHED BY / AFFILIATION:		DATE: 3/10/23		TIME: 0800		ACCEPTED BY / AFFILIATION:		DATE: 3-10-23		TIME: 0800		SAMPLE CONDITIONS			
														Temp in °C: 2.4	Received on Ice (Y/N): Y	Custody Sealed Cooler (Y/N): N	Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER: Joe Riley / Justin Wp	DATE Signed (MM/DD/YY): 3/10/23
SIGNATURE of SAMPLER:	

PH: 87147
Added HNO3 to XTPW08 - LM 3/13 (87173)

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:		<table border="1"> <tr> <th colspan="3">REGULATORY AGENCY</th> </tr> <tr> <td>NPDES</td> <td>GROUND WATER</td> <td>DRINKING WATER</td> </tr> <tr> <td>UST</td> <td>RCRA</td> <td>OTHER</td> </tr> <tr> <td>Site Location:</td> <td>IL</td> <td></td> </tr> <tr> <td>STATE:</td> <td></td> <td></td> </tr> </table>		REGULATORY AGENCY			NPDES	GROUND WATER	DRINKING WATER	UST	RCRA	OTHER	Site Location:	IL		STATE:		
REGULATORY AGENCY																						
NPDES	GROUND WATER	DRINKING WATER																				
UST	RCRA	OTHER																				
Site Location:	IL																					
STATE:																						
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey	Company Name: Vistra Corp																			
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Address: see Section A																				
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:																				
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:																				
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:																				

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	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	Analysis Test	JOP_257_401	JOP_257_402	JOP_845_403			
1	G111		3/7/23 1603		2															23021699-017
2	G112C		3/4/23 0813																	018
3	G112D		↓ 0833																	019
4	G112DD		↓ 0905																	020
5	G113		3/7/23 1321																	021
6	G12D		3/9/23 1207																	022
7	G12S		↓ 1253																	023
8	G13D		3/9/23 1337																	024
9	G13S		↓ 1325																	025
10	G14D		3/10/23 0814																	026
11	G14S		↓ 0857																	027
12	G151		3/9/23 1500		0															028
13	G15D		3/9/23 1501		2															029
14	G15S		↓ 1442																	030
15	G16D		3/9/23 1407																	031
16	G16S		↓ 1355																	032

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
JOP-23Q1 Rev 1	<i>[Signature]</i>	3/10/23	0800	<i>[Signature]</i>	3/1/23	0800	
		3/11/23	TE SMT				

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>See JOP 1 Justin CP</i>							
SIGNATURE of SAMPLER: <i>[Signature]</i> DATE Signed (MM/DD/YY): 3/10/23							

CHAIN-OF-CUSTODY / Analytical Request Document

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT LANDFILL

JOP-23Q1 Rev 1
3/27/23

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

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							Analysis Test ↓ ↓ ↓	Requested Analysis Filtered (Y/N)			Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol		Other	JOP_257_401	JOP_257_402		
1	G51D				3/9/23	0250	2	1								✓	✓	✓	23021699-033		
2	G52D	100			03/10/23	0800	1	1								✓	✓	✓	034		
3	G53D				3/9/23	1035	1	1								✓	✓	✓	035		
4	G54D				3/9/23	0915	1	1								✓	✓	✓	036		
5	G54S				3/7/23	1559	0	0								✓	✓	✓	037		
6	SG02				3/11/23	1751	0	0								✓	✓	✓	038		
7	TPZ114				3/11/23	0747	2	1								✓	✓	✓	039		
8	TPZ115				3/8/23	1015	1	1								✓	✓	✓	040		
9	TPZ115D				↓	0636										✓	✓	✓	041		
10	TPZ115DD				↓	1058										✓	✓	✓	042		
11	TPZ116				OKY											✓	✓	✓	043		
12	TPZ117				↓											✓	✓	✓	044		
13	TPZ117D				3/7/23	1251										✓	✓	✓	045		
14	TPZ118				3/8/23	1221										✓	✓	✓	046		
15	TPZ118D				↓	1254										✓	✓	✓	047		
16	TPZ118DD				↓	1342										✓	✓	✓	048		

ADDITIONAL COMMENTS	REQUISITIONED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
JOP-23Q1 Rev 1	<i>[Signature]</i>	3/10/23	0800	<i>[Signature]</i>	3-10-23	0800	

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>Justin Cap J. RILEY</i>				
SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YY):	3-10-23		

CHAIN-OF-CUSTODY / Analytical Request Document

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

JOPPA POWER PLANT LANDFILL

APPENDIX A.

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

Page: 5 of 5

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

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test ↓	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 O ₂	Methanol		Other	JOP_257_401	JOP_257_402			JOP_845_403
1	XTPW02		3/8/23	1125		2												2302199-065		
2	XTPW03		3/7/23	1505														066		
3	XTPW04		3/8/23	0947														067		
4	XTPW06		3/10/23	0804														068		
5	XTPW07		3/10/23	0804														069		
6	XTPW08		3/10/23	1014														070		
7	FIELD BLANK		3/10/23	1730										✓	✓	✓		071		
8	FIELD DUPLICATE		3/10/23	1100										✓	✓			072		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
JOP-23Q1 Rev 1	<i>[Signature]</i>	3/10/23	0800	<i>[Signature]</i>	3-10-23	0800	
PG and DW per history. 3/28/23		3/10/23	TE 900				

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Container (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	<i>Justin Cole J. Riley</i>				
SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YY):	3-10-23		

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																
Site: <u>Joppa</u>		Client: <u>Vistra</u>														
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:										
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1017</u>								
WELL INFORMATION				EVENT TYPE												
Well ID: <u>G01D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>								
WATER QUALITY INDICATOR PARAMETERS (continued)																
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity					
	10:02		41.32													
	10:11	0.39	41.32	0	14.9	6.53	637	2.17	23.9	206.9						
	10:14	0.52	41.32	0	14.9	6.54	639	1.95	20.1	199.5						
	10:17	0.65	41.32	0	14.5	6.53	639	1.8	7.8	195.3						
NOTES (continued)							ABBREVIATIONS									
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																
Site: <u>Joppa</u>			Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:	Start Date: <u>3/07/2023</u>			Time:										
Field Personnel: <u>J. Riley / J. Colp</u>			Finish Date: <u>3/8/2023</u>			Time: <u>1427</u>										
WELL INFORMATION				EVENT TYPE												
Well ID: <u>G02D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>								
WATER QUALITY INDICATOR PARAMETERS (continued)																
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity					
	14:18		41.57													
	14:21	0.13	41.57	0	14.1	6.77	427.4	6.85	19.8	24.8						
	14:24	0.26	41.57	0	14.2	6.61	4243	6.1	4.7	38.8						
	14:27	0.39	41.57	0	14.2	6.56	4224	5.78	5.9	49.1						
NOTES (continued)							ABBREVIATIONS									
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																
Site: <u>Joppa</u>		Client: <u>Vistra</u>														
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:										
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>0718</u>								
WELL INFORMATION				EVENT TYPE												
Well ID: <u>G03</u>				Well Development				Low-Flow / Low Stress Sampling								
				Well Volume Approach Sampling				Other (Specify): <u>Low Flow</u>								
WATER QUALITY INDICATOR PARAMETERS (continued)																
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity					
	6:38		36.41													
	7:11	1.43	36.41	0	15.3	6.22	672	4.52	119.6	167.6						
	7:14	1.56	36.41	0	15.4	6.23	668	4.46	104.2	165.6						
	7:18	1.69	36.41	0	15.4	6.23	665	4.46	107.3	164.6						
NOTES (continued)							ABBREVIATIONS									
Bladder Pump / Cloudy / Lt. Brown / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1105</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G05</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	10:53		41.05												
	10:56	0.13	41.05	0	15.2	6.55	698	6.88	37.1	47					
	10:59	0.26	41.05	0	14.7	6.5	702	5.01	27.1	26.6					
	11:02	0.39	41.05	0	14	6.5	700	4.85	40.7	46.1					
	11:05	0.52	41.05	0	13.9	6.5	699	4.95	38.6	47.4					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>		Time: _____									
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G07</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	12:01		36.24												
	12:19	0.78	36.24	0	15	6.41	1070	0.88	391	112.1					
	12:22	0.91	36.24	0	15	6.41	1073	0.83	280.1	112.3					
	12:25	1.04	36.24	0	15	6.42	1075	0.78	193.9	112.4					
	12:28	1.17	36.24	0	15	6.42	1077	0.76	201.3	112.5					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Cloudy / Lt. Brown / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time:							
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1018</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G08</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	<u>9:57</u>		<u>25.82</u>												
	<u>10:12</u>	<u>0.65</u>	<u>25.82</u>	<u>0</u>	<u>15.4</u>	<u>6.85</u>	<u>1038</u>	<u>1.01</u>	<u>55.9</u>	<u>-50.6</u>					
	<u>10:15</u>	<u>0.78</u>	<u>25.82</u>	<u>0</u>	<u>15.4</u>	<u>6.85</u>	<u>1043</u>	<u>0.93</u>	<u>40.9</u>	<u>-51.2</u>					
	<u>10:18</u>	<u>0.91</u>	<u>25.82</u>	<u>0</u>	<u>15.4</u>	<u>6.85</u>	<u>1047</u>	<u>0.9</u>	<u>48.7</u>	<u>-51.6</u>					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								SEC - Specific Electrical Conductance				SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>947</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G09</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	9:29		32.84												
	9:38	0.39	32.84	0	16.2	6.15	953	1.66	143.9	-10.1					
	9:41	0.52	32.84	0	16.2	6.15	960	1.53	126.7	-8.5					
	9:44	0.65	32.84	0	16.2	6.14	964	1.44	101	-8.4					
	9:47	0.78	32.84	0	16.2	6.13	971	1.39	107.8	-5					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Cloudy / Lt. Brown / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time: _____							
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1710</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G10</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	16:43		33.78												
	17:01	0.78	33.78	0	16	6.55	1263	0.91	101.6	8.6					
	17:04	0.91	33.78	0	15.9	6.55	1252	0.86	63.3	9.9					
	17:07	1.04	33.78	0	15.9	6.55	1242	0.82	55.8	10.8					
	17:10	1.17	33.78	0	15.9	6.55	1231	0.79	51.5	11.6					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / Strong odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																
Site: <u>Joppa</u>		Client: <u>Vistra</u>														
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:										
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>0947</u>								
WELL INFORMATION				EVENT TYPE												
Well ID: <u>G101</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>								
WATER QUALITY INDICATOR PARAMETERS (continued)																
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity					
	<u>9:09</u>		<u>39.73</u>													
	<u>9:39</u>	<u>1.3</u>	<u>44.1</u>	<u>4.37</u>	<u>15.2</u>	<u>6.6</u>	<u>569</u>	<u>7.88</u>	<u>0.1</u>	<u>99.8</u>						
	<u>9:42</u>	<u>1.43</u>	<u>44.1</u>	<u>0</u>	<u>15.1</u>	<u>6.58</u>	<u>569</u>	<u>7.77</u>	<u>0</u>	<u>98.9</u>						
	<u>9:47</u>	<u>1.56</u>	<u>44.1</u>	<u>0</u>	<u>15.3</u>	<u>6.58</u>	<u>568</u>	<u>7.69</u>	<u>0</u>	<u>99.4</u>						
NOTES (continued)							ABBREVIATIONS									
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION													
Site: <u>Joppa</u>		Client: <u>Vistra</u>											
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:							
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>1156</u>					
WELL INFORMATION				EVENT TYPE									
Well ID: <u>G102LF</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>					
WATER QUALITY INDICATOR PARAMETERS (continued)													
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity		
	11:32		58.05										
	11:50	0.65	62.6	4.55	15.4	6.34	445.9	7.1	54.3	107.5			
	11:53	0.78	63.7	0.1	15.4	6.32	439.2	7.04	42.1	109.8			
	11:56	0.91	63.7	0	15.4	6.31	438.6	6.97	49.2	112.1			
NOTES (continued)							ABBREVIATIONS						
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential	
							FT BTOC - Feet Below Top of Casing na -					SEC - Specific Electrical Conductance	

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>1217</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G105LF</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	12:05		54.78												
	12:11	0.26	54.78	0	16.2	6.04	536	8.1	12.1	127.8					
	12:14	0.39	54.78	0	16.2	6.03	517	7.95	4.8	138.4					
	12:17	0.52	54.78	0	16.3	6.03	510	7.94	2.9	145.7					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>1239</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G107LF</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	12:24		52.15												
	12:30	0.26	54.82	2.67	16.1	6.4	1134	4.42	31.5	122.3					
	12:33	0.39	55.42	0.6	16	6.4	1133	4.04	26.8	124.1					
	12:36	0.52	55.42	0	16	6.41	1132	3.93	28.6	125.4					
	12:39	0.65	55.42	0	15.9	6.42	1129	4.1	24.6	126.5					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																
Site: <u>Joppa</u>		Client: <u>Vistra</u>														
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time:								
Field Personnel: <u>J. Riley / J. Colp</u>			Finish Date: <u>3/10/2023</u>			Time: <u>1308</u>										
WELL INFORMATION				EVENT TYPE												
Well ID: <u>G109LF</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>								
WATER QUALITY INDICATOR PARAMETERS (continued)																
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity					
	<u>12:47</u>		<u>50.42</u>													
	<u>12:59</u>	<u>0.52</u>	<u>53.22</u>	<u>2.8</u>	<u>15.9</u>	<u>6.33</u>	<u>526</u>	<u>5.46</u>	<u>26.2</u>	<u>129.9</u>						
	<u>13:02</u>	<u>0.65</u>	<u>53.8</u>	<u>0.58</u>	<u>15.8</u>	<u>6.33</u>	<u>526</u>	<u>5.36</u>	<u>30.2</u>	<u>131.5</u>						
	<u>13:05</u>	<u>0.78</u>	<u>53.8</u>	<u>0</u>	<u>15.9</u>	<u>6.32</u>	<u>524</u>	<u>5.21</u>	<u>30.4</u>	<u>134.1</u>						
	<u>13:08</u>	<u>0.91</u>	<u>53.8</u>	<u>0</u>	<u>16.1</u>	<u>6.32</u>	<u>524</u>	<u>5.18</u>	<u>29.8</u>	<u>134.9</u>						
NOTES (continued)							ABBREVIATIONS									
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																
Site: <u>Joppa</u>		Client: <u>Vistra</u>														
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:										
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1547</u>								
WELL INFORMATION				EVENT TYPE												
Well ID: <u>G11</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>								
WATER QUALITY INDICATOR PARAMETERS (continued)																
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity					
	15:23		44.26													
	15:26	0.13	44.26	0	16	5.81	1204	3.28	19.4	142.2						
	15:29	0.26	44.26	0	15.6	5.81	1183	2.17	25.7	153.2						
	15:32	0.39	44.26	0	15.9	5.82	1104	1.75	136	157.2						
	15:35	0.52	44.26	0	15.9	5.84	1016	1.44	138.2	160.4						
	15:38	0.65	44.26	0	15.9	5.85	970	1.3	88.5	162.4						
	15:41	0.78	44.26	0	16	5.86	943	1.21	68.2	164						
	15:44	0.91	44.26	0	16	5.87	911	1.16	55.8	165.2						
	15:47	1.04	44.26	0	16	5.87	902	1.13	49.3	166.3						
NOTES (continued)							ABBREVIATIONS									
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1603</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G111</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	15:51		4.78												
	15:54	0.13	4.78	0	14.3	7.13	690	6.5	21.2	35.5					
	15:57	0.26	4.78	0	14.6	7.05	690	5.3	24.8	41					
	16:00	0.39	4.78	0	14.6	7.05	690	5.27	16.4	45.5					
	16:03	0.52	4.78	0	14.7	7.05	690	5.21	4.2	49.1					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>813</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G112C</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	8:01		5.1												
	8:07	0.26	5.1	0	13.2	6.44	1645	1.4	18.9	180.7					
	8:10	0.39	5.1	0	13.2	6.42	1646	1.35	18.7	180.9					
	8:13	0.52	5.1	0	13	6.41	1644	1.21	9.87	180.6					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>833</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G112D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	8:24		8.38												
	8:27	0.13	8.38	0	14.3	6.65	684	3.61	8	166.5					
	8:30	0.26	8.38	0	14.3	6.63	687	2	3.1	110.5					
	8:33	0.39	8.38	0	14.4	6.62	681	1.42	1.4	64.6					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1321</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G113</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	13:09		10.83												
	13:12	0.13	10.83	0	14.3	6.54	1457	5.75	13.8	121.1					
	13:15	0.26	10.83	0	14.3	6.53	1466	5.69	8.3	122.9					
	13:18	0.39	10.83	0	14.3	6.53	1473	5.59	14.1	124.7					
	13:21	0.52	10.83	0	14.3	6.53	1478	5.49	22.9	126					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No Odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								SEC - Specific Electrical Conductance				SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time:			
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1307</u>			
WELL INFORMATION				EVENT TYPE							
Well ID: <u>G012D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>12:58</u>		<u>42.63</u>								
	<u>13:01</u>	<u>0.13</u>	<u>42.63</u>	<u>0</u>	<u>14.5</u>	<u>6.65</u>	<u>815</u>	<u>4.87</u>	<u>7.1</u>	<u>108.6</u>	
	<u>13:04</u>	<u>0.26</u>	<u>42.63</u>	<u>0</u>	<u>14.6</u>	<u>6.62</u>	<u>817</u>	<u>1.76</u>	<u>15.9</u>	<u>108.6</u>	
	<u>13:07</u>	<u>0.39</u>	<u>42.63</u>	<u>0</u>	<u>14.6</u>	<u>6.62</u>	<u>817</u>	<u>1.29</u>	<u>8.2</u>	<u>107.9</u>	
NOTES (continued)							ABBREVIATIONS				
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na - Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1253</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: G012S				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): Low Flow							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	12:35		42.3												
	12:44	0.39	42.3	0	14.6	6.54	806	1.52	76.5	107					
	12:47	0.52	42.3	0	14.6	6.54	805	1.21	39.4	107.1					
	12:50	0.65	42.3	0	14.6	6.54	804	1.08	32.1	107.2					
	12:53	0.78	42.3	0	14.6	6.55	804	1	5.8	107.3					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								SEC - Specific Electrical Conductance				SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:					
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1337</u>			
WELL INFORMATION				EVENT TYPE							
Well ID: <u>G013D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>13:28</u>		<u>37.12</u>								
	<u>13:31</u>	<u>0.13</u>	<u>37.12</u>	<u>0</u>	<u>14.3</u>	<u>6.65</u>	<u>776</u>	<u>4.87</u>	<u>1.1</u>	<u>111.8</u>	
	<u>13:34</u>	<u>0.26</u>	<u>37.12</u>	<u>0</u>	<u>14.3</u>	<u>6.62</u>	<u>777</u>	<u>2.04</u>	<u>0.4</u>	<u>113.7</u>	
	<u>13:37</u>	<u>0.39</u>	<u>37.12</u>	<u>0</u>	<u>14.3</u>	<u>6.61</u>	<u>777</u>	<u>1.69</u>	<u>0</u>	<u>115</u>	
NOTES (continued)							ABBREVIATIONS				
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na - Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1325</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G013S</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	13:16		37.33												
	13:19	0.13	37.33	0	14.3	6.6	777	3.65	1.9	112.1					
	13:22	0.26	37.33	0	14.3	6.57	777	2.07	2.1	113					
	13:25	0.39	37.33	0	14.3	6.56	777	1.51	2.2	112.9					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time:							
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>0857</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: G014S				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): Low Flow							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	8:48		27.69												
	8:51	0.13	27.69	0	13.8	6.6	879	3.83	7.7	44.4					
	8:54	0.26	27.69	0	13.8	6.56	880	2.49	8.4	56.8					
	8:57	0.39	27.69	0	13.8	6.55	880	2.31	8.1	59.7					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:					
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>		Time: _____					
WELL INFORMATION				EVENT TYPE							
Well ID: <u>G151</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>15:50</u>		<u>34.31</u>								
NOTES (continued)								ABBREVIATIONS			
Bladder Pump / Clear / No Color / No odor								Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical			
								FT BTOC - Feet Below Top of Casing na - Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1501</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G015D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	14:46		29.28												
	14:52	0.26	29.28	0	14.2	6.71	1188	1.28	174.2	-18.3					
	14:55	0.39	29.28	0	14.1	6.72	1184	1.1	120.4	-21.6					
	14:58	0.52	29.28	0	14.1	6.73	1189	0.99	65.8	-24.7					
	15:01	0.65	29.28	0	14.2	6.73	1182	0.88	70.1	-28.4					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Cloudy / Lt. Brown / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1442</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G015S</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	14:15		29.25												
	14:36	0.91	29.25	0	14.2	6.19	548	2.02	33.2	120.1					
	14:39	1.04	29.25	0	14.2	6.19	548	1.98	22.1	124.9					
	14:42	1.17	29.25	0	14.2	6.19	548	1.96	9.8	127.1					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time:							
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1407</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G016D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	13:58		33.93												
	14:01	0.13	33.93	0	14.3	6.76	866	4.79	9.5	-32.5					
	14:04	0.26	33.93	0	14.3	6.75	870	2.01	3.8	-63.6					
	14:07	0.39	33.93	0	14.3	6.75	864	1.37	0	-72.8					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / Moderate odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1355</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: G016S				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): Low Flow							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	13:46		33.91												
	13:49	0.13	33.91	0	14.2	6.68	1142	3.89	6.8	124.8					
	13:52	0.26	33.91	0	14.2	6.67	1142	2.3	17.1	120.7					
	13:55	0.39	33.91	0	14.3	6.67	1142	1.55	9.6	115.8					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1508</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G51D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	14:59		41.63												
	15:02	0.13	41.63	0	15.9	5.88	447.8	5.82	34	97.7					
	15:05	0.26	41.63	0	15.9	5.51	448.4	3.02	2.9	151.1					
	15:08	0.39	41.63	0	15.9	5.49	449.1	2.58	3	166.5					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No Odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																
Site: <u>Joppa</u>		Client: <u>Vistra</u>														
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:										
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>1100</u>								
WELL INFORMATION				EVENT TYPE												
Well ID: <u>G52D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>								
WATER QUALITY INDICATOR PARAMETERS (continued)																
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity					
	10:48		28													
	10:54		29.3	1.3	14.7	6.56	604	3.43	26.3	-21.8						
	10:57		29.3	0	14.8	6.48	604	7.64	15.4	16.3						
	11:00		29.3	0	14.8	6.54	604	10.09	8.9	26.7						
NOTES (continued)							ABBREVIATIONS									
Bladder Pump / Clear / No Color / No odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1038</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G53D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	10:29		35.35												
	10:32	0.13	35.35	0	15.5	6.54	624	3.74	8.5	-2.7					
	10:35	0.26	35.35	0	15.6	6.48	628	2.42	4.8	2.6					
	10:38	0.39	35.35	0	15.7	6.46	626	2.03	4.2	3.6					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								SEC - Specific Electrical Conductance				SU - Standard Units			
FT BTOC - Feet Below Top of Casing								na -							

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>915</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: G54D				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): Low Flow							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	9:00		35.99												
	9:09	0.39	35.99	0	15.1	6.53	1026	2	96.1	12.8					
	9:12	0.52	35.99	0	15.2	6.52	1018	1.55	78.6	4.1					
	9:15	0.65	35.99	0	15.2	6.52	1017	1.14	84.9	1.5					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / Slight odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								SEC - Specific Electrical Conductance				SU - Standard Units			
								FT BTOC - Feet Below Top of Casing na -							

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:					
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>0743</u>			
WELL INFORMATION				EVENT TYPE							
Well ID: <u>TPZ114</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>7:34</u>		<u>20.21</u>								
	<u>7:37</u>	<u>0.13</u>	<u>27.9</u>	<u>7.69</u>	<u>14.6</u>	<u>6.2</u>	<u>353.6</u>	<u>5.43</u>	<u>61.6</u>	<u>74.6</u>	
	<u>7:40</u>	<u>0.26</u>	<u>30.46</u>	<u>2.56</u>	<u>14.4</u>	<u>6.16</u>	<u>349.1</u>	<u>5.7</u>	<u>38.3</u>	<u>87</u>	
	<u>7:43</u>	<u>0.39</u>	<u>31.52</u>	<u>1.06</u>	<u>14.2</u>	<u>6.15</u>	<u>348.8</u>	<u>5.77</u>	<u>8.5</u>	<u>91.3</u>	
NOTES (continued)							ABBREVIATIONS				
Bladder Pump / Cloudy / Lt. Brown / No odor							Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na - Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1015</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>TPZ115</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	10:03		12.29												
	10:09	0.26	12.29	0	13.4	6.97	1455	5.15	44.9	32.3					
	10:12	0.39	12.29	0	13.4	6.96	1456	5.16	3.4	44.3					
	10:15	0.52	12.29	0	13.3	6.96	1457	5.1	7.4	51.9					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No Odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								SEC - Specific Electrical Conductance				SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:					
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1036</u>			
WELL INFORMATION				EVENT TYPE							
Well ID: <u>TPZ115D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>10:27</u>		<u>7.25</u>								
	<u>10:30</u>	<u>0.13</u>	<u>7.25</u>	<u>0</u>	<u>13.6</u>	<u>7.03</u>	<u>703</u>	<u>3.31</u>	<u>17.7</u>	<u>-95.8</u>	
	<u>10:33</u>	<u>0.26</u>	<u>7.25</u>	<u>0</u>	<u>13.7</u>	<u>7.09</u>	<u>704</u>	<u>1.66</u>	<u>6.7</u>	<u>-131.6</u>	
	<u>10:36</u>	<u>0.39</u>	<u>7.25</u>	<u>0</u>	<u>13.8</u>	<u>7.11</u>	<u>704</u>	<u>1.26</u>	<u>2.3</u>	<u>-142.9</u>	
NOTES (continued)							ABBREVIATIONS				
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na - Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:					
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1058</u>			
WELL INFORMATION				EVENT TYPE							
Well ID: <u>TPZ115DD</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	10:43		6.96								
	10:49	0.26	6.96	0	13.5	7.18	573	1.31	26.1	-137.4	
	10:52	0.39	6.96	0	13.6	7.17	566	1.04	24.3	-135.6	
	10:55	0.52	6.96	0	13.7	7.17	563	0.95	6.2	-136.1	
	10:58	0.65	6.96	0	13.7	7.18	559	0.85	4.8	-138	
NOTES (continued)								ABBREVIATIONS			
Bladder Pump / Clear / No Color / No Odor								<small>Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance FT BTOC - Feet Below Top of Casing</small>			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																
Site: <u>Joppa</u>		Client: <u>Vistra</u>														
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:										
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1251</u>								
WELL INFORMATION				EVENT TYPE												
Well ID: <u>TPZ117D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>								
WATER QUALITY INDICATOR PARAMETERS (continued)																
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity					
	12:27		31.51													
	12:30	0.13	31.51	0	15.8	6.66	924	4.18	64.7	64.9						
	12:33	0.26	31.51	0	15.8	6.57	923	2.09	66.4	74						
	12:36	0.39	31.51	0	15.8	6.56	917	1.62	55	80.6						
	12:39	0.52	31.51	0	15.8	6.55	916	1.48	49.3	84.3						
	12:42	0.65	31.51	0	15.7	6.55	912	1.36	36.3	88.5						
	12:45	0.78	31.51	0	15.7	6.54	911	1.28	28.5	92						
	12:48	0.91	31.51	0	15.7	6.54	909	1.23	27	94.6						
	12:51	1.04	31.51	0	15.7	6.54	908	1.2	33.9	96.5						
NOTES (continued)							ABBREVIATIONS									
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential SEC - Specific Electrical				
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1254</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>TPZ118D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	12:33		24.72												
	12:45	0.52	24.72	0	14.8	6.28	1069	1.23	22.8	10.3					
	12:48	0.65	24.72	0	14.7	6.28	1068	1.05	14.5	9.1					
	12:51	0.78	24.72	0	14.8	6.28	1068	0.94	10.2	8					
	12:54	0.91	24.72	0	14.8	6.28	1067	0.87	9.5	7.3					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No Odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								SEC - Specific Electrical Conductance				SU - Standard Units			
FT BTOC - Feet Below Top of Casing								na -							

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>			Time:				
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1342</u>			
WELL INFORMATION				EVENT TYPE							
Well ID: TPZ118DD				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): Low Flow			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	13:06		23.21								
	13:27	0.91	23.21	0	14.7	7.09	553	0.84	57.6	-34.7	
	13:30	1.04	23.21	0	14.7	7.09	552	0.79	48.9	-33.4	
	13:33	1.17	23.21	0	14.7	7.09	551	0.76	44.6	-32.7	
	13:36	1.3	23.21	0	14.7	7.09	551	0.74	33.7	-33.1	
	13:39	1.43	23.21	0	14.7	7.09	550	0.7	27.2	-35.1	
	13:42	1.56	23.21	0	14.7	7.09	550	0.68	22.6	-36.2	
NOTES (continued)							ABBREVIATIONS				
Bladder Pump / Clear / No Color / No Odor							<small>Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical FT BTOC - Feet Below Top of Casing na - Conductance SU - Standard Units</small>				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>			Time:								
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1144</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>TPZ119D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	<u>11:35</u>		<u>34.1</u>												
	<u>11:38</u>	<u>0.13</u>	<u>34.1</u>	<u>0</u>	<u>14.9</u>	<u>6.41</u>	<u>725</u>	<u>4.32</u>	<u>18.1</u>	<u>94.8</u>					
	<u>11:41</u>	<u>0.26</u>	<u>34.1</u>	<u>0</u>	<u>14.9</u>	<u>6.36</u>	<u>750</u>	<u>3.21</u>	<u>9.2</u>	<u>100.2</u>					
	<u>11:44</u>	<u>0.39</u>	<u>34.1</u>	<u>0</u>	<u>14.9</u>	<u>6.34</u>	<u>768</u>	<u>2.75</u>	<u>9.8</u>	<u>104.2</u>					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time:							
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1209</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>TPZ119DD</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	11:54		34.1												
	11:57	0.13	34.1	0	14.7	6.69	1781	4.4	76.4	68.6					
	12:00	0.26	34.1	0	14.7	6.74	1810	1.66	55	32.1					
	12:03	0.39	34.1	0	14.7	6.75	1798	1.22	41.5	17.8					
	12:06	0.52	34.1	0	14.6	6.76	1784	0.98	25.8	7.2					
	12:09	0.65	34.1	0	14.6	6.76	1778	0.87	7.8	2					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No Odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential SEC - Specific Electrical			
								FT BTOC - Feet Below Top of Casing na -				Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1421</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>TPZ120</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	14:00		27.94												
	14:09	0.39	27.94	0	15	3.16	4295	0.99	42.3	337.9					
	14:12	0.52	27.94	0	15	3.06	4344	0.89	31	353.7					
	14:15	0.65	27.94	0	14.9	2.94	4436	0.79	26.4	373.8					
	14:18	0.78	27.94	0	14.9	2.88	4530	0.72	21.2	390.8					
	14:21	0.91	27.94	0	15	2.8	4644	0.73	40.8	400					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / yellowish / No Odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential SEC - Specific Electrical			
								FT BTOC - Feet Below Top of Casing na -				Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1352</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>TPZ120D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	13:40		44.38												
	13:43	0.13	44.38	0	14.9	6.28	1829	4.33	25.9	104.7					
	13:46	0.26	44.38	0	14.9	6.2	1840	1.83	17.4	91.3					
	13:49	0.39	44.38	0	14.9	6.2	1832	1.53	19.2	87.7					
	13:52	0.52	44.38	0	14.9	6.2	1822	1.26	24.7	83.1					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1708</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>TPZ122</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	16:44		43.34												
	16:59	0.65	43.34	0	14.4	6.76	942	1.66	67.8	-32.4					
	17:02	0.78	43.34	0	14.4	6.76	941	1.57	54	-34.2					
	17:05	0.91	43.34	0	14.4	6.76	940	1.47	50.3	-35.4					
	17:08	1.04	43.34	0	14.4	6.77	939	1.47	50.6	-36.2					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>			Time: _____				
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>			Time: <u>1633</u>				
WELL INFORMATION				EVENT TYPE							
Well ID: <u>TPZ122D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	16:21		25.72								
	16:24	0.13	25.72	0	14.7	6.66	947	7.28	4	74.6	
	16:27	0.26	25.72	0	14.7	6.24	960	3.77	11.1	99.5	
	16:30	0.39	25.72	0	14.3	6.15	960	3	11.6	116.2	
	16:33	0.52	25.72	0	14.4	6.11	959	2.68	15.6	130.1	
NOTES (continued)							ABBREVIATIONS				
Bladder Pump / Clear / No Color / No Odor							<small>Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical FT BTOC - Feet Below Top of Casing na - Conductance SU - Standard Units</small>				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1536</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>TPZ123</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	15:21		41.83												
	15:30	0.39	41.83	0	14.6	6.86	899	2.11	45.2	-38.2					
	15:33	0.52	41.83	0	14.7	6.85	896	1.84	37.2	-29.1					
	15:36	0.65	41.83	0	14.6	6.84	896	1.72	36.2	-24.2					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:					
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>		Time: <u>1105</u>					
WELL INFORMATION				EVENT TYPE							
Well ID: <u>TPZ124</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>10:38</u>		<u>18.54</u>								
	<u>10:50</u>	<u>0.52</u>	<u>20.06</u>	<u>1.52</u>	<u>14.5</u>	<u>6.16</u>	<u>1384</u>	<u>1.37</u>	<u>96.5</u>	<u>37.5</u>	
	<u>10:53</u>	<u>0.65</u>	<u>20.06</u>	<u>0</u>	<u>14.5</u>	<u>6.17</u>	<u>1377</u>	<u>1.27</u>	<u>334.2</u>	<u>34.2</u>	
	<u>10:56</u>	<u>0.78</u>	<u>20.06</u>	<u>0</u>	<u>14.5</u>	<u>6.17</u>	<u>1369</u>	<u>1.22</u>	<u>238.3</u>	<u>32</u>	
	<u>10:59</u>	<u>0.91</u>	<u>20.06</u>	<u>0</u>	<u>14.4</u>	<u>6.17</u>	<u>1354</u>	<u>1.12</u>	<u>92.4</u>	<u>28.3</u>	
	<u>11:02</u>	<u>1.04</u>	<u>20.6</u>	<u>0</u>	<u>14.4</u>	<u>6.17</u>	<u>1344</u>	<u>1.03</u>	<u>74.8</u>	<u>26</u>	
	<u>11:05</u>	<u>1.17</u>	<u>20.6</u>	<u>0</u>	<u>14.4</u>	<u>6.17</u>	<u>1342</u>	<u>1.01</u>	<u>78.3</u>	<u>26.1</u>	
NOTES (continued)							ABBREVIATIONS				
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical FT BTOC - Feet Below Top of Casing na - Conductance SU - Standard Units				

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time:							
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1125</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>TPZ124D</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	11:16		26.22												
	11:19	0.13	26.22	0	14.4	6.78	1361	5.88	5.6	92					
	11:22	0.26	26.22	0	1.4	6.76	1401	1.8	3.1	26.4					
	11:25	0.39	26.22	0	14.4	6.77	1408	1.28	2.1	11.6					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No Odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION													
Site: <u>Joppa</u>		Client: <u>Vistra</u>											
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:							
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1251</u>					
WELL INFORMATION				EVENT TYPE									
Well ID: <u>Well 3</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>					
WATER QUALITY INDICATOR PARAMETERS (continued)													
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity		
	12:27		31.51										
	12:30	0.13	31.51	0	15.8	6.66	924	4.18	64.7	64.9			
	12:33	0.26	31.51	0	15.8	6.57	923	2.09	66.4	74			
	12:36	0.39	31.51	0	15.8	6.56	917	1.62	55	80.6			
	12:39	0.52	31.51	0	15.8	6.55	916	1.48	49.3	84.3			
	12:42	0.65	31.51	0	15.7	6.55	912	1.36	36.3	88.5			
	12:45	0.78	31.51	0	15.7	6.54	911	1.28	28.5	92			
	12:48	0.91	31.51	0	15.7	6.54	909	1.23	27	94.6			
	12:51	1.04	31.51	0	15.7	6.54	908	1.2	33.9	96.5			
NOTES (continued)							ABBREVIATIONS						
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential	
							FT BTOC - Feet Below Top of Casing na -					SEC - Specific Electrical Conductance	

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1614</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>XPW01</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	16:05		12.93												
	16:08	0.13	12.93	0	16	8.36	993	2.14	28.6	-123.3					
	16:11	0.26	12.93	0	16	8.41	992	1.55	10.7	-139.6					
	16:14	0.39	12.93	0	15.9	8.47	998	1.27	6.1	-156.9					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / Strong odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential SEC - Specific Electrical			
								FT BTOC - Feet Below Top of Casing na -				Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time:							
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/9/2023</u>				Time: <u>1537</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>XPW03</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	15:28		9.43												
	15:31	0.13	10.45	1.02	16.4	10.76	791	3.3	1.6	-76.8					
	15:34	0.26	10.45	0	16.4	10.75	809	2.33	0	-90.4					
	15:37	0.39	10.45	0	16.4	10.74	822	2.01	0	-102.4					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								SEC - Specific Electrical Conductance				SU - Standard Units			
FT BTOC - Feet Below Top of Casing								na -							

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>1036</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>XTPW01</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	10:24		16.4												
	10:30	0.26	16.65	0.25	14	10.8	1332	1.72	44.4	-153.8					
	10:33	0.39	16.65	0	14.1	10.8	1351	1.42	32.1	-154.6					
	10:36	0.52	16.65	0	14	10.81	1369	1.19	7.2	-156.1					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>1143</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: XTPW02				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): Low Flow							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	11:25		17.67												
	11:34	0.39	17.67	0	14	10.62	1095	1.24	26.1	-148.3					
	11:37	0.52	17.67	0	14	10.62	1099	1.05	27.8	-161.4					
	11:40	0.65	17.67	0	14	10.63	1100	0.92	17.3	-176					
	11:43	0.78	17.67	0	13.9	10.63	1102	0.87	39	-182.2					
NOTES (continued)							ABBREVIATIONS								
Bladder Pump / Clear / No Color / No Odor							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential		SEC - Specific Electrical	
							FT BTOC - Feet Below Top of Casing na -					Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/7/2023</u>				Time: <u>1505</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: XTPW03				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): Low Flow							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	14:41		14.39												
	14:53	0.52	14.39	0	13.6	6.77	1516	1.13	75.3	47.7					
	14:56	0.65	14.39	0	13.6	6.76	1518	1.06	79.3	49.7					
	14:59	0.78	14.39	0	13.6	6.76	1518	1	37	49.9					
	15:02	0.91	14.39	0	13.6	6.76	1517	0.92	20.02	51.8					
	15:05	1.04	14.39	0	13.6	6.76	1516	0.86	20.7	50					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / Brownish / No Odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/8/2023</u>				Time: <u>947</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: XTPW04				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): Low Flow							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	9:23		4.15												
	9:38	0.65	4.15	0	13.5	7.07	1286	1.11	120.6	-112.4					
	9:41	0.78	4.15	0	13.5	7.07	1285	1.01	122.4	-114.5					
	9:44	0.91	4.15	0	13.5	7.08	1288	0.94	37.3	-116					
	9:47	1.04	4.15	0	13.5	7.09	1288	0.88	58.1	-118.1					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No Odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>0804</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>XTPW06</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	7:52		16.45												
	7:58	0.26	20.24	3.79	14	5.44	1641	1.99	45.5	-9.9					
	8:01	0.39	20.24	0	13.9	5.4	1615	1.74	19.3	-1.4					
	8:04	0.52	20.24	0	14.1	5.47	1714	1.37	7.11	-15.6					
NOTES (continued)								ABBREVIATIONS							
Submersible / Clear / No Color / Moderate odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance SU - Standard Units			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Joppa</u>		Client: <u>Vistra</u>									
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>				Time:			
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>1016</u>			
WELL INFORMATION				EVENT TYPE							
Well ID: <u>XTPW08</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	9:58		6.94								
	10:04	0.26	6.94	0	14.4	5.8	1806	1.33	570.8	-5.3	
	10:07	0.39	6.94	0	14.4	5.87	1820	1.29	866	-4.6	
	10:10	0.52	6.94	0	15.5	6.05	2055	1.36	501.7	-82.8	
	10:13	0.65	6.94	0	15.5	6.07	2058	1.15	435.8	-90.5	
	10:16	0.78	6.94	0	15.2	6.08	2045	1.09	497.3	-98	
NOTES (continued)								ABBREVIATIONS			
Submersible / Cloudy / Brown / Slight odor								<small>Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SEC - Specific Electrical FT BTOC - Feet Below Top of Casing na - Conductance SU - Standard Units</small>			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>		Client: <u>Vistra</u>													
Project Number: <u>23021699</u>		Task #:		Start Date: <u>3/07/2023</u>		Time:									
Field Personnel: <u>J. Riley / J. Colp</u>				Finish Date: <u>3/10/2023</u>				Time: <u>1100</u>							
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G52DDUP</u>				Well Development Well Volume Approach Sampling				Low-Flow / Low Stress Sampling Other (Specify): <u>Low Flow</u>							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	10:48		28												
	10:54		29.3	1.3	14.7	6.56	604	3.43	26.3	-21.8					
	10:57		29.3	0	14.8	6.48	604	7.64	15.4	16.3					
	11:00		29.3	0	14.8	6.54	604	10.09	8.9	26.7					
NOTES (continued)								ABBREVIATIONS							
Bladder Pump / Clear / No Color / No odor								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing na -				SEC - Specific Electrical Conductance			

JOP 23Q1 Calibration Form

	Date	Time		Date	Time		Date	Time		Date	Time
	3/7/2023	910		3/8/2023	731		3/9/2023	823		3/10/2023	626
	Standard	Result		Standard	Result		Standard	Result		Standard	Result
pH (SU)	4.00	3.95		4.00	4.07		4.00	4		4.00	4.06
	7.00	7.1		7.00	7		7.00	7.04		7.00	7.05
	10.00	10.08		10.00	9.9		10.00	10.09		10.00	10.03
SpC (μS/cm @25 deg C) LCS	1409	1411		1409	1412		1409	1487		1409	1382
	<i>Time</i>	<i>1719</i>		<i>1759</i>			<i>1709</i>			<i>1435</i>	
pH (SU)	7.00	7.04		7.00	7.00		7.00	7.02		7.00	7.00
SpC (μS/cm @25 deg C) LCS	1409	1389		1409	1416		1409	1401		1409	1420

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Joppa Client: 1.1.5 tra
 Project Number: _____ Task #: _____ Start Date: 3-21-23 Time: _____
 Field Personnel: J. C. P. / T. Carroll Finish Date: 3-21-23 Time: 12:46

WELL INFORMATION	EVENT TYPE
Well ID: <u>G101 LF</u> Casing ID: _____ inches	<input type="checkbox"/> Well Development <input type="checkbox"/> Low-Flow / Low Stress Sampling <input type="checkbox"/> Well Volume Approach Sampling <input type="checkbox"/> Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	11:58		6.16		14.2	6.71	433.1	5.08	1991.2	100.5	
	12:19	.91			14.2	6.71	433.1	5.08	1991.2	100.5	
	12:22	1.04			14.2	6.70	428.9	5.05	1995.7	102.6	
	12:25	1.17			14.2	6.69	423.6	5.08	1764.2	104.8	
	12:28	1.30			14.2	6.67	418.2	5.07	1514.4	106.7	
	12:31	1.43			14.2	6.65	411.5	5.11	1259.7	109.5	
	12:34	1.56			14.1	6.63	407.8	5.14	1039.3	111.6	
	12:37	1.69			14.2	6.62	403.2	5.12	851.8	113.6	
	12:40	1.82			14.2	6.61	399.3	5.14	780.3	115.7	
	12:43	1.95			14.2	6.60	397.7	5.15	682.2	117.2	
	12:46	2.08			14.2	6.59	395.9	5.16	672.0	118.6	Cloudy

NOTES (continued)	ABBREVIATIONS
tip of water discharge line broke. bladder pump / no odor / orangish / Cloudy	Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential FT BTOP - Feet Below Top of Casing SEC - Specific Electrical Conductance na - Not Applicable SU - Standard Units nm - Not Measured Temp - Temperature °C - Degrees Celsius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Joppa</u>			Client: <u>Vistra</u>												
Project Number: _____			Task #: _____			Start Date: <u>3-21-23</u>			Time: _____						
Field Personnel: <u>J. GIP / T. Carroll</u>			Finish Date: <u>3-21-23</u>			Time: <u>11:46</u>									
WELL INFORMATION				EVENT TYPE											
Well ID: <u>G111 LP</u>				<input type="checkbox"/> Well Development				<input type="checkbox"/> Low-Flow / Low Stress Sampling							
Casing ID: _____ inches				<input type="checkbox"/> Well Volume Approach Sampling				<input type="checkbox"/> Other (Specify): _____							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
	<u>11:22</u>		<u>48.46</u>												
	<u>11:31</u>	<u>.39</u>			<u>15.3</u>	<u>6.74</u>	<u>441</u>	<u>4.10</u>	<u>16.9</u>	<u>47.5</u>					
	<u>11:34</u>	<u>.52</u>			<u>15.3</u>	<u>6.66</u>	<u>438.6</u>	<u>3.69</u>	<u>17.0</u>	<u>55.2</u>					
	<u>11:37</u>	<u>.65</u>			<u>15.4</u>	<u>6.61</u>	<u>436.1</u>	<u>3.13</u>	<u>18.4</u>	<u>62.8</u>					
	<u>11:40</u>	<u>.78</u>			<u>15.1</u>	<u>6.58</u>	<u>437.9</u>	<u>2.72</u>	<u>17.7</u>	<u>68.4</u>					
	<u>11:43</u>	<u>.91</u>			<u>15.2</u>	<u>6.57</u>	<u>436.4</u>	<u>2.43</u>	<u>15.3</u>	<u>72.4</u>					
	<u>11:46</u>	<u>1.04</u>			<u>15.4</u>	<u>6.56</u>	<u>433.4</u>	<u>2.26</u>	<u>15.9</u>	<u>76.0</u>	<u>Clear</u>				
NOTES (continued)								ABBREVIATIONS							
<u>bladder pump / no color / no odor / clear</u>								Cond. - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing				SEC - Specific Electrical Conductance			
								na - Not Applicable				SU - Standard Units			
								nm - Not Measured				Temp - Temperature			
												°C - Degrees Celsius			

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																
Site: <u>JOPPA</u>			Client: <u>Vistra</u>			Project Number: _____			Task #: _____							
Field Personnel: <u>J. Cobb / T. Carroll</u>			Start Date: <u>3-21-23</u>			Finish Date: <u>3-21-23</u>			Time: _____							
WELL INFORMATION						EVENT TYPE										
Well ID: <u>XPW02</u>			<input type="checkbox"/> Well Development			<input type="checkbox"/> Low-Flow / Low Stress Sampling			Casing ID: _____ inches							
			<input type="checkbox"/> Well Volume Approach Sampling			<input type="checkbox"/> Other (Specify): _____										
WATER QUALITY INDICATOR PARAMETERS (continued)																
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity					
	<u>10:41</u>		<u>2.93</u>													
	<u>10:54</u>	<u>.78</u>			<u>15.7</u>	<u>6.78</u>	<u>6577</u>	<u>7.53</u>	<u>5.7</u>	<u>16.0</u>						
	<u>11:02</u>	<u>.91</u>			<u>15.2</u>	<u>7.55</u>	<u>6280</u>	<u>3.62</u>	<u>2.1</u>	<u>-91.9</u>						
	<u>11:05</u>	<u>1.04</u>			<u>14.5</u>	<u>7.60</u>	<u>6277</u>	<u>2.15</u>	<u>1.6</u>	<u>-149.8</u>	<u>Clear</u>					
NOTES (continued)							ABBREVIATIONS									
<u>bladder pump, no color, no odor, clear</u>							Cond. - Actual Conductivity					ORP - Oxidation-Reduction Potential				
							FT BTDC - Feet Below Top of Casing					SEC - Specific Electrical Conductance				
							na - Not Applicable					SU - Standard Units				
							nm - Not Measured					Temp - Temperature				
												°C - Degrees Celsius				

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Field Analysis Log

23030880

Cross Reference to Sample ID	Date mm/dd/yy	Time	Temp. C	pH Results			Conductivity			Other:				
				Reading 1	Reading 2	LCSD	Range Factor	Reading 1	Reading 2	COLOR BLANK	Read1/units	COLORBLANK	Read2/units	
LCS	3/21/23	10:56	10.7	7.10				1414						
CCU	3-21-23	13:11	12.8	7.03				1434						

**** Field Meter ID for Temp, pH & Conductivity: YSi 055

**** Field Meter ID for (DR900): A15

Field Temp SOP 1156	SW846	Std Methods	Lot #	pH 4.0 Buffer	280933	Conductivity Std.	1413	2GT009	Std.	PIPETTE
pH in the Field SOP 1152	9040B	4500-H B		pH 7.0 Buffer	2GT792	Conductivity Std.			Std.	
Field Cond. SOP 1155	9050A	2510 B		pH 10.0 Buffer	1G#486	Conductivity Std.			Std.	
Other:				pH LCS/LCSD	7	Conductivity LCS/LCSD			LCS/LCSD	

pH Calibration	4.00	Reading	3.98	Conductivity Calibration	Reading	units	Calibration	Reading
Date: 3/21/23	7.00		6.92	1413	μS	0-199.9	Std	Units
Time: 10:40	10.00		9.90		μS	0-1999	Std	Units
					mS	0-19.99	Std	Units

Field Analyst Sig & Date: Jessy Caswell 3/21/23
 Reviewed By & Date: _____
 Reviewed By & Date: _____

Comments:

November 16, 2023

Eric Bauer
Ramboll
234 W. Florida Street
Fifth Floor
Milwaukee, WI 53204
TEL: (414) 837-3607
FAX: (414) 837-3608



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: JOP-23Q3

WorkOrder: 23091473

Dear Eric Bauer:

TEKLAB, INC received 8 samples for JOP_257_402 on 9/29/2023 9:30:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Director of Customer Service
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	14
Dates Report	15
Quality Control Results	19
Receiving Check List	72
Chain of Custody	Appended



Definitions

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)



Definitions

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: JOP-23Q3

Work Order: 23091473
Report Date: 16-Nov-23

Cooler Receipt Temp: 5.6 °C

An employee of Teklab, Inc. collected the sample(s).

XSG01: insufficient water for measurement. SG02: removed per Roger Faughn.

G16S and G151: Ferrous Iron was not measured in the field; per Eric Bauer, proceed with reporting without Ferrous Iron data. EAH 10/17/23

G19S, G10, G101-LF and G12S Duplicate collection dates/times are per the field instrument(s) rather than the chain of custody. EAH 10/18/23

Per Eric Bauer's request, only JOP_257_402 data is included in this report. EAH 11/16/23

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: JOP-23Q3

Work Order: 23091473
Report Date: 16-Nov-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Client: Ramboll
Client Project: JOP-23Q3
Lab ID: 23091473-010
Matrix: GROUNDWATER

Work Order: 23091473
Report Date: 16-Nov-23
Client Sample ID: G101-LF
Collection Date: 09/27/2023 11:03

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		43.38	ft	1	09/27/2023 11:03	R337257
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		480	NTU	1	09/27/2023 11:03	R337257
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		88	mV	1	09/27/2023 11:03	R337257
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		341	µS/cm	1	09/27/2023 11:03	R337257
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		15.6	°C	1	09/27/2023 11:03	R337257
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		5.81	mg/L	1	09/27/2023 11:03	R337257
SW-846 9040B FIELD									
pH	*	0	1.00		6.45		1	09/27/2023 11:03	R337257
STANDARD METHODS 2320 B (TOTAL) 1997, 2011									
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0	0		109	mg/L	1	10/03/2023 11:50	R337243
STANDARD METHODS 2320 B 1997, 2011									
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0	0		0	mg/L	1	10/03/2023 11:50	R337243
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	NELAP	40	50		700	mg/L	2.5	10/02/2023 10:28	R337236
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		39	mg/L	1	10/04/2023 0:37	R337255
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.36	mg/L	1	10/03/2023 11:30	R337213
SW-846 9251 (TOTAL)									
Chloride	NELAP	1	4	J	2	mg/L	1	10/04/2023 0:37	R337287
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Calcium	NELAP	0.0350	0.100		23.1	mg/L	1	09/29/2023 22:19	212596
Magnesium	NELAP	0.0055	0.0500		11.5	mg/L	1	09/29/2023 22:19	212596
Potassium	NELAP	0.0400	0.100		2.08	mg/L	1	09/29/2023 22:19	212596
Sodium	NELAP	0.0180	0.0500		58.5	mg/L	1	09/29/2023 22:19	212596
SW-846 3005A, 6020A, METALS BY ICMS (TOTAL)									
Boron	NELAP	0.0092	0.0250		0.0427	mg/L	5	10/02/2023 14:05	212596



Client: Ramboll
Client Project: JOP-23Q3
Lab ID: 23091473-011
Matrix: GROUNDWATER

Work Order: 23091473
Report Date: 16-Nov-23

Client Sample ID: G102

Collection Date: 09/27/2023 10:14

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		59.00	ft	1	09/27/2023 10:14	R337257
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		46	NTU	1	09/27/2023 10:14	R337257
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		83	mV	1	09/27/2023 10:14	R337257
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		335	µS/cm	1	09/27/2023 10:14	R337257
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		16.8	°C	1	09/27/2023 10:14	R337257
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		6.59	mg/L	1	09/27/2023 10:14	R337257
SW-846 9040B FIELD									
pH	*	0	1.00		6.32		1	09/27/2023 10:14	R337257
STANDARD METHODS 2320 B (TOTAL) 1997, 2011									
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0	0		116	mg/L	1	10/03/2023 12:02	R337243
STANDARD METHODS 2320 B 1997, 2011									
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0	0		0	mg/L	1	10/03/2023 12:02	R337243
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	NELAP	16	20		200	mg/L	1	10/02/2023 11:16	R337236
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		29	mg/L	1	10/04/2023 0:46	R337255
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.20	mg/L	1	10/03/2023 13:06	R337213
SW-846 9251 (TOTAL)									
Chloride	NELAP	1	4		4	mg/L	1	10/04/2023 0:45	R337287
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Calcium	NELAP	0.0350	0.100		9.31	mg/L	1	09/30/2023 10:01	212596
Magnesium	NELAP	0.0055	0.0500		3.62	mg/L	1	09/30/2023 10:01	212596
Potassium	NELAP	0.0400	0.100		0.546	mg/L	1	09/30/2023 10:01	212596
Sodium	NELAP	0.0180	0.0500		54.2	mg/L	1	09/30/2023 10:01	212596
SW-846 3005A, 6020A, METALS BY ICMS (TOTAL)									
Boron	NELAP	0.0092	0.025	J	0.017	mg/L	5	10/02/2023 14:10	212596



Client: Ramboll
Client Project: JOP-23Q3
Lab ID: 23091473-012
Matrix: GROUNDWATER

Work Order: 23091473
Report Date: 16-Nov-23
Client Sample ID: G105
Collection Date: 09/27/2023 9:03

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		56.18	ft	1	09/27/2023 9:03	R337257
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		8.0	NTU	1	09/27/2023 9:03	R337257
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		54	mV	1	09/27/2023 9:03	R337257
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		508	µS/cm	1	09/27/2023 9:03	R337257
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		17.8	°C	1	09/27/2023 9:03	R337257
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		7.06	mg/L	1	09/27/2023 9:03	R337257
SW-846 9040B FIELD									
pH	*	0	1.00		6.17		1	09/27/2023 9:03	R337257
STANDARD METHODS 2320 B (TOTAL) 1997, 2011									
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0	0		124	mg/L	1	10/03/2023 12:59	R337243
STANDARD METHODS 2320 B 1997, 2011									
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0	0		0	mg/L	1	10/03/2023 12:59	R337243
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	NELAP	16	20		266	mg/L	1	10/02/2023 10:29	R337236
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		19	mg/L	1	10/04/2023 0:54	R337255
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.16	mg/L	1	10/03/2023 11:43	R337213
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		48	mg/L	10	10/04/2023 0:59	R337287
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Calcium	NELAP	0.0350	0.100		29.0	mg/L	1	09/30/2023 10:02	212596
Magnesium	NELAP	0.0055	0.0500		10.8	mg/L	1	09/30/2023 10:02	212596
Potassium	NELAP	0.0400	0.100		0.454	mg/L	1	09/30/2023 10:02	212596
Sodium	NELAP	0.0180	0.0500		50.5	mg/L	1	09/30/2023 10:02	212596
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Boron	NELAP	0.0092	0.0250		< 0.0250	mg/L	5	10/02/2023 14:16	212596



Client: Ramboll
Client Project: JOP-23Q3
Lab ID: 23091473-013
Matrix: GROUNDWATER

Work Order: 23091473
Report Date: 16-Nov-23

Client Sample ID: G107

Collection Date: 09/28/2023 15:23

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		55.51	ft	1	09/28/2023 15:23	R337257
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		190	NTU	1	09/28/2023 15:23	R337257
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		144	mV	1	09/28/2023 15:23	R337257
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		908	µS/cm	1	09/28/2023 15:23	R337257
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		18.4	°C	1	09/28/2023 15:23	R337257
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		4.43	mg/L	1	09/28/2023 15:23	R337257
SW-846 9040B FIELD									
pH	*	0	1.00		6.40		1	09/28/2023 15:23	R337257
STANDARD METHODS 2320 B (TOTAL) 1997, 2011									
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0	0		298	mg/L	1	10/03/2023 13:18	R337243
STANDARD METHODS 2320 B 1997, 2011									
Alkalinity, Carbonate (as CaCO3)	NELAP	0	0		0	mg/L	1	10/03/2023 13:18	R337243
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	NELAP	40	50		505	mg/L	2.5	10/02/2023 11:55	R337236
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		26	mg/L	1	10/04/2023 1:02	R337255
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.22	mg/L	1	10/03/2023 10:55	R337213
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		77	mg/L	10	10/04/2023 1:07	R337287
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Calcium	NELAP	0.0350	0.100		90.7	mg/L	1	10/02/2023 18:18	212657
Magnesium	NELAP	0.0055	0.0500		21.8	mg/L	1	10/02/2023 18:18	212657
Potassium	NELAP	0.0400	0.100		3.69	mg/L	1	10/02/2023 18:18	212657
Sodium	NELAP	0.0180	0.0500		66.3	mg/L	1	10/02/2023 18:18	212657
SW-846 3005A, 6020A, METALS BY ICMS (TOTAL)									
Boron	NELAP	0.0092	0.025	J	0.021	mg/L	5	10/03/2023 12:57	212657



Client: Ramboll
Client Project: JOP-23Q3
Lab ID: 23091473-014
Matrix: GROUNDWATER

Work Order: 23091473
Report Date: 16-Nov-23

Client Sample ID: G109

Collection Date: 09/26/2023 15:28

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		52.55	ft	1	09/26/2023 15:28	R337257
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		8.7	NTU	1	09/26/2023 15:28	R337257
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		77	mV	1	09/26/2023 15:28	R337257
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		314	µS/cm	1	09/26/2023 15:28	R337257
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		18.3	°C	1	09/26/2023 15:28	R337257
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		5.94	mg/L	1	09/26/2023 15:28	R337257
SW-846 9040B FIELD									
pH	*	0	1.00		6.40		1	09/26/2023 15:28	R337257
STANDARD METHODS 2320 B (TOTAL) 1997, 2011									
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0	0		102	mg/L	1	10/03/2023 13:36	R337243
STANDARD METHODS 2320 B 1997, 2011									
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0	0		0	mg/L	1	10/03/2023 13:36	R337243
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	NELAP	16	20		204	mg/L	1	09/29/2023 10:13	R337238
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		23	mg/L	1	10/04/2023 1:09	R337255
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.21	mg/L	1	10/03/2023 10:58	R337213
SW-846 9251 (TOTAL)									
Chloride	NELAP	1	4		10	mg/L	1	10/04/2023 1:09	R337287
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Calcium	NELAP	0.0350	0.100		17.4	mg/L	1	09/30/2023 10:04	212596
Magnesium	NELAP	0.0055	0.0500		5.06	mg/L	1	09/30/2023 10:04	212596
Potassium	NELAP	0.0400	0.100		3.01	mg/L	1	09/30/2023 10:04	212596
Sodium	NELAP	0.0180	0.0500		35.3	mg/L	1	09/30/2023 10:04	212596
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Boron	NELAP	0.0092	0.0250		0.0251	mg/L	5	10/02/2023 14:21	212596



Client: Ramboll
Client Project: JOP-23Q3
Lab ID: 23091473-016
Matrix: GROUNDWATER

Work Order: 23091473
Report Date: 16-Nov-23
Client Sample ID: G111-LF
Collection Date: 09/26/2023 14:57

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		50.61	ft	1	09/26/2023 14:57	R337257
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		18	NTU	1	09/26/2023 14:57	R337257
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		58	mV	1	09/26/2023 14:57	R337257
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		394	µS/cm	1	09/26/2023 14:57	R337257
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		18.1	°C	1	09/26/2023 14:57	R337257
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		4.39	mg/L	1	09/26/2023 14:57	R337257
SW-846 9040B FIELD									
pH	*	0	1.00		6.56		1	09/26/2023 14:57	R337257
STANDARD METHODS 2320 B (TOTAL) 1997, 2011									
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0	0		162	mg/L	1	10/03/2023 14:03	R337243
STANDARD METHODS 2320 B 1997, 2011									
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0	0		0	mg/L	1	10/03/2023 14:03	R337243
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	NELAP	16	20		214	mg/L	1	09/29/2023 10:32	R337238
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		16	mg/L	1	10/04/2023 1:33	R337255
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.30	mg/L	1	10/03/2023 10:59	R337213
SW-846 9251 (TOTAL)									
Chloride	NELAP	1	4		9	mg/L	1	10/04/2023 1:33	R337287
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Calcium	NELAP	0.0350	0.100		13.0	mg/L	1	09/30/2023 10:05	212596
Magnesium	NELAP	0.0055	0.0500		4.09	mg/L	1	09/30/2023 10:05	212596
Potassium	NELAP	0.0400	0.100		1.78	mg/L	1	09/30/2023 10:05	212596
Sodium	NELAP	0.0180	0.0500		62.4	mg/L	1	09/30/2023 10:05	212596
SW-846 3005A, 6020A, METALS BY ICMS (TOTAL)									
Boron	NELAP	0.0092	0.0250		< 0.0250	mg/L	5	10/02/2023 14:50	212596



Client: Ramboll
Client Project: JOP-23Q3
Lab ID: 23091473-046
Matrix: AQUEOUS

Work Order: 23091473
Report Date: 16-Nov-23
Client Sample ID: Field Blank
Collection Date: 09/28/2023 11:16

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 2320 B (TOTAL) 1997, 2011									
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0	0		4	mg/L	1	10/04/2023 9:52	R337296
STANDARD METHODS 2320 B 1997, 2011									
Alkalinity, Carbonate (as CaCO3)	NELAP	0	0		0	mg/L	1	10/04/2023 9:52	R337296
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	NELAP	16	20	J	16	mg/L	1	10/02/2023 13:06	R337236
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		< 10	mg/L	1	10/04/2023 16:30	R337324
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		< 0.10	mg/L	1	10/03/2023 11:58	R337213
SW-846 9251 (TOTAL)									
Chloride	NELAP	1	4		< 4	mg/L	1	10/04/2023 16:30	R337334
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Calcium	NELAP	0.0350	0.100		< 0.100	mg/L	1	10/03/2023 14:00	212717
Magnesium	NELAP	0.0055	0.0500		< 0.0500	mg/L	1	10/03/2023 14:00	212717
Potassium	NELAP	0.0400	0.100		< 0.100	mg/L	1	10/03/2023 14:00	212717
Sodium	NELAP	0.018	0.050	J	0.037	mg/L	1	10/03/2023 14:00	212717
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Boron	NELAP	0.0092	0.025	J	0.022	mg/L	5	10/04/2023 18:28	212717



Sample Summary

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: JOP-23Q3

Work Order: 23091473
Report Date: 16-Nov-23

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
23091473-010	G101-LF	Groundwater	2	09/27/2023 11:03
23091473-011	G102	Groundwater	2	09/27/2023 10:14
23091473-012	G105	Groundwater	2	09/27/2023 9:03
23091473-013	G107	Groundwater	2	09/28/2023 15:23
23091473-014	G109	Groundwater	2	09/26/2023 15:28
23091473-016	G111-LF	Groundwater	2	09/26/2023 14:57
23091473-039	SG02	Groundwater	1	
23091473-046	Field Blank	Aqueous	6	09/28/2023 11:16



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
23091473-010A	G101-LF	09/27/2023 11:03	09/27/2023 18:42		
	Field Elevation Measurements				09/27/2023 11:03
	Standard Methods 2130 B Field				09/27/2023 11:03
	Standard Methods 18th Ed. 2580 B Field				09/27/2023 11:03
	Standard Methods 2320 B (Total) 1997, 2011				10/03/2023 11:50
	Standard Methods 2320 B 1997, 2011				10/03/2023 11:50
	Standard Methods 2510 B Field				09/27/2023 11:03
	Standard Methods 2540 C (Total) 1997, 2011				10/02/2023 10:28
	Standard Methods 2550 B Field				09/27/2023 11:03
	Standard Methods 4500-O G Field				09/27/2023 11:03
	SW-846 9036 (Total)				10/04/2023 0:37
	SW-846 9040B Field				09/27/2023 11:03
	SW-846 9214 (Total)				10/03/2023 11:30
	SW-846 9251 (Total)				10/04/2023 0:37
23091473-010B	G101-LF	09/27/2023 11:03	09/27/2023 18:42		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/28/2023 18:43	09/29/2023 22:19
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/28/2023 18:43	10/02/2023 14:05
23091473-011A	G102	09/27/2023 10:14	09/27/2023 18:42		
	Field Elevation Measurements				09/27/2023 10:14
	Standard Methods 2130 B Field				09/27/2023 10:14
	Standard Methods 18th Ed. 2580 B Field				09/27/2023 10:14
	Standard Methods 2320 B (Total) 1997, 2011				10/03/2023 12:02
	Standard Methods 2320 B 1997, 2011				10/03/2023 12:02
	Standard Methods 2510 B Field				09/27/2023 10:14
	Standard Methods 2540 C (Total) 1997, 2011				10/02/2023 11:16
	Standard Methods 2550 B Field				09/27/2023 10:14
	Standard Methods 4500-O G Field				09/27/2023 10:14
	SW-846 9036 (Total)				10/04/2023 0:46
	SW-846 9040B Field				09/27/2023 10:14
	SW-846 9214 (Total)				10/03/2023 13:06
	SW-846 9251 (Total)				10/04/2023 0:45
23091473-011B	G102	09/27/2023 10:14	09/27/2023 18:42		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/28/2023 18:43	09/30/2023 10:01
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/28/2023 18:43	10/02/2023 14:10
23091473-012A	G105	09/27/2023 9:03	09/27/2023 18:42		
	Field Elevation Measurements				09/27/2023 9:03
	Standard Methods 2130 B Field				09/27/2023 9:03



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	Standard Methods 18th Ed. 2580 B Field				09/27/2023 9:03
	Standard Methods 2320 B (Total) 1997, 2011				10/03/2023 12:59
	Standard Methods 2320 B 1997, 2011				10/03/2023 12:59
	Standard Methods 2510 B Field				09/27/2023 9:03
	Standard Methods 2540 C (Total) 1997, 2011				10/02/2023 10:29
	Standard Methods 2550 B Field				09/27/2023 9:03
	Standard Methods 4500-O G Field				09/27/2023 9:03
	SW-846 9036 (Total)				10/04/2023 0:54
	SW-846 9040B Field				09/27/2023 9:03
	SW-846 9214 (Total)				10/03/2023 11:43
	SW-846 9251 (Total)				10/04/2023 0:59
23091473-012B	G105	09/27/2023 9:03	09/27/2023 18:42		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/28/2023 18:43	09/30/2023 10:02
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/28/2023 18:43	10/02/2023 14:16
23091473-013A	G107	09/28/2023 15:23	09/29/2023 9:30		
	Field Elevation Measurements				09/28/2023 15:23
	Standard Methods 2130 B Field				09/28/2023 15:23
	Standard Methods 18th Ed. 2580 B Field				09/28/2023 15:23
	Standard Methods 2320 B (Total) 1997, 2011				10/03/2023 13:18
	Standard Methods 2320 B 1997, 2011				10/03/2023 13:18
	Standard Methods 2510 B Field				09/28/2023 15:23
	Standard Methods 2540 C (Total) 1997, 2011				10/02/2023 11:55
	Standard Methods 2550 B Field				09/28/2023 15:23
	Standard Methods 4500-O G Field				09/28/2023 15:23
	SW-846 9036 (Total)				10/04/2023 1:02
	SW-846 9040B Field				09/28/2023 15:23
	SW-846 9214 (Total)				10/03/2023 10:55
	SW-846 9251 (Total)				10/04/2023 1:07
23091473-013B	G107	09/28/2023 15:23	09/29/2023 9:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/29/2023 16:49	10/02/2023 18:18
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/29/2023 16:49	10/02/2023 21:13
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/29/2023 16:49	10/03/2023 12:57
23091473-014A	G109	09/26/2023 15:28	09/27/2023 18:42		
	Field Elevation Measurements				09/26/2023 15:28
	Standard Methods 2130 B Field				09/26/2023 15:28
	Standard Methods 18th Ed. 2580 B Field				09/26/2023 15:28
	Standard Methods 2320 B (Total) 1997, 2011				10/03/2023 13:36



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	Standard Methods 2320 B 1997, 2011				10/03/2023 13:36
	Standard Methods 2510 B Field				09/26/2023 15:28
	Standard Methods 2540 C (Total) 1997, 2011				09/29/2023 10:13
	Standard Methods 2550 B Field				09/26/2023 15:28
	Standard Methods 4500-O G Field				09/26/2023 15:28
	SW-846 9036 (Total)				10/04/2023 1:09
	SW-846 9040B Field				09/26/2023 15:28
	SW-846 9214 (Total)				10/03/2023 10:58
	SW-846 9251 (Total)				10/04/2023 1:09
23091473-014B	G109	09/26/2023 15:28	09/27/2023 18:42		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/28/2023 18:44	09/30/2023 10:04
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/28/2023 18:44	10/02/2023 14:21
23091473-016A	G111-LF	09/26/2023 14:57	09/27/2023 18:42		
	Field Elevation Measurements				09/26/2023 14:57
	Standard Methods 2130 B Field				09/26/2023 14:57
	Standard Methods 18th Ed. 2580 B Field				09/26/2023 14:57
	Standard Methods 2320 B (Total) 1997, 2011				10/03/2023 14:03
	Standard Methods 2320 B 1997, 2011				10/03/2023 14:03
	Standard Methods 2510 B Field				09/26/2023 14:57
	Standard Methods 2540 C (Total) 1997, 2011				09/29/2023 10:32
	Standard Methods 2550 B Field				09/26/2023 14:57
	Standard Methods 4500-O G Field				09/26/2023 14:57
	SW-846 9036 (Total)				10/04/2023 1:33
	SW-846 9040B Field				09/26/2023 14:57
	SW-846 9214 (Total)				10/03/2023 10:59
	SW-846 9251 (Total)				10/04/2023 1:33
23091473-016B	G111-LF	09/26/2023 14:57	09/27/2023 18:42		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/28/2023 18:44	09/30/2023 10:05
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/28/2023 18:44	10/02/2023 14:50
23091473-046A	Field Blank	09/28/2023 11:16	09/28/2023 15:05		
	Standard Methods 2320 B (Total) 1997, 2011				10/04/2023 9:52
	Standard Methods 2320 B 1997, 2011				10/04/2023 9:52
	Standard Methods 2540 C (Total) 1997, 2011				10/02/2023 13:06
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/29/2023 15:57
	Standard Methods 4500-NO3 F (Total) 2000, 2011				09/29/2023 15:05
	Standard Methods 4500-NO3 F (Total) 2000, 2011				09/29/2023 15:05
	Standard Methods 4500-P E 1999				09/29/2023 13:51



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
	Standard Methods 4500-P E 1999, 2011				09/29/2023 10:02
	SW-846 9036 (Total)				10/04/2023 16:30
	SW-846 9214 (Total)				10/03/2023 11:58
	SW-846 9251 (Total)				10/04/2023 16:30
23091473-046B	Field Blank	09/28/2023 11:16	09/28/2023 15:05		
	Standard Methods 2320 B (Dissolved) 1997, 2011				10/04/2023 11:30
	Standard Methods 2320 B (Dissolved) 1997, 2011				10/04/2023 11:30
	Standard Methods 4500-NO2 B (Dissolved) 2000, 2011				09/29/2023 15:59
	Standard Methods 4500-NO3 F (Dissolved) 2000, 2011				09/29/2023 15:51
	Standard Methods 4500-NO3 F (Dissolved) 2000, 2011				09/29/2023 15:51
	Standard Methods 4500-P E (Dissolved) 1999, 2011				09/29/2023 10:02
	Standard Methods 4500-P E (Dissolved) 1999				09/29/2023 13:51
	SW-846 9036 (Dissolved)				10/03/2023 19:20
	SW-846 9251 (Dissolved)				10/03/2023 19:20
23091473-046C	Field Blank	09/28/2023 11:16	09/28/2023 15:05		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/02/2023 19:04	10/03/2023 14:00
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/02/2023 19:04	10/04/2023 18:28
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/02/2023 19:04	10/09/2023 14:26
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/02/2023 19:04	10/10/2023 11:55
	SW-846 7470A (Total)			10/02/2023 14:08	10/03/2023 13:03
23091473-046D	Field Blank	09/28/2023 11:16	09/28/2023 15:05		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			10/02/2023 9:08	10/02/2023 22:53
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/02/2023 9:08	10/04/2023 15:17
23091473-046E	Field Blank	09/28/2023 11:16	09/28/2023 15:05		
	SW-846 9060A				10/02/2023 22:29
23091473-046F	Field Blank	09/28/2023 11:16	09/28/2023 15:05		
	SW-846 9060A				10/02/2023 17:30



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: JOP-23Q3

Work Order: 23091473
Report Date: 16-Nov-23

STANDARD METHODS 2510 B FIELD

Batch R337257		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1410	1412	0	100.0	90	110	09/27/2023	

Batch R337257		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1410	1412	0	99.9	90	110	09/26/2023	

Batch R337257		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-3											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1410	1412	0	100.1	90	110	09/25/2023	

Batch R337257		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-4											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1420	1412	0	100.2	90	110	09/27/2023	

Batch R337257		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-5											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1410	1412	0	100.1	90	110	09/26/2023	

Batch R337257		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-6											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1410	1412	0	100.0	90	110	09/28/2023	

Batch R337257		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-7											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1480	1412	0	104.8	90	110	09/29/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9040B FIELD

Batch R337257		SampType: LCS		Units							
SampID: LCS-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.04	7.000	0	100.6	98.57	101.4	09/27/2023	

Batch R337257		SampType: LCS		Units							
SampID: LCS-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.04	7.000	0	100.6	98.57	101.4	09/26/2023	

Batch R337257		SampType: LCS		Units							
SampID: LCS-3											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.06	7.000	0	100.9	98.57	101.4	09/25/2023	

Batch R337257		SampType: LCS		Units							
SampID: LCS-4											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.00	7.000	0	100.0	98.57	101.4	09/27/2023	

Batch R337257		SampType: LCS		Units							
SampID: LCS-5											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.01	7.000	0	100.1	98.57	101.4	09/26/2023	

Batch R337257		SampType: LCS		Units							
SampID: LCS-6											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.01	7.000	0	100.1	98.57	101.4	09/28/2023	

Batch R337257		SampType: LCS		Units							
SampID: LCS-7											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.04	7.000	0	100.6	98.57	101.4	09/29/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R337107		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	09/28/2023	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	09/28/2023	

Batch R337107		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		972	1000	0	97.2	90	110	09/28/2023	
Total Dissolved Solids		20		948	1000	0	94.8	90	110	09/28/2023	

Batch R337107		SampType: DUP		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-001ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Total Dissolved Solids		20		330				350.0	5.88	09/28/2023		

Batch R337236		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/02/2023	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/02/2023	

Batch R337236		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		970	1000	0	97.0	90	110	10/02/2023	
Total Dissolved Solids		20		978	1000	0	97.8	90	110	10/02/2023	

Batch R337236		SampType: DUP		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-012ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Total Dissolved Solids		20		262				266.0	1.52	10/02/2023		

Batch R337236		SampType: DUP		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-026ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Total Dissolved Solids		20		396				390.0	1.53	10/02/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R337238		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	09/29/2023	

Batch R337238		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		976	1000	0	97.6	90	110	09/29/2023	

Batch R337238		SampType: DUP		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-014ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Total Dissolved Solids		20		192				204.0	6.06	09/29/2023		

Batch R338047		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/19/2023	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/19/2023	

Batch R338047		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		962	1000	0	96.2	90	110	10/19/2023	
Total Dissolved Solids		20		950	1000	0	95.0	90	110	10/19/2023	

STANDARD METHODS 4500-NO2 B (DISSOLVED) 2000, 2011

Batch R336898		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Nitrogen, Nitrite (as N)		0.05		0.47	0.5000	0	93.4	85	115	09/26/2023	

Batch R336898		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-001BMDS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	102.2	0.4670	9.00	09/26/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-NO2 B (DISSOLVED) 2000, 2011

Batch R336898		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.62	0.5000	0.06700	111.4	85	115	09/26/2023	

Batch R336898		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-002BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrite (as N)		0.05		0.58	0.5000	0.06700	102.4	0.6240	7.48	09/26/2023		

Batch R336898		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-035BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	102.0	85	115	09/26/2023	

Batch R336898		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-035BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	102.4	0.5100	0.39	09/26/2023		

Batch R336962		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-004BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	101.2	85	115	09/28/2023	

Batch R336962		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-004BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrite (as N)		0.05		0.50	0.5000	0	100.8	0.5060	0.40	09/28/2023		

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R336898		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/26/2023	
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/26/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R336898		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.25		1.20	1.250	0	95.6	90	110	09/26/2023	
Nitrogen, Nitrite (as N)		0.25		1.20	1.250	0	95.6	90	110	09/26/2023	

Batch R336962		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/27/2023	
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/27/2023	

Batch R336962		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.25		1.24	1.250	0	98.8	90	110	09/27/2023	
Nitrogen, Nitrite (as N)		0.25		1.23	1.250	0	98.4	90	110	09/27/2023	

Batch R336962		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-004AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.50	0.5000	0	100.8	85	115	09/28/2023	

Batch R336962		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-004AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	101.6	0.5040	0.79	09/28/2023		

Batch R336962		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.50	0.5000	0	99.6	85	115	09/28/2023	

Batch R336962		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-006AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrite (as N)		0.05		0.49	0.5000	0	98.6	0.4980	1.01	09/28/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R336962		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-009AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.47	0.5000	0	94.6	85	115	09/28/2023	

Batch R336962		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-009AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrite (as N)		0.05		0.47	0.5000	0	94.6	0.4730	0.00	09/28/2023		

Batch R337118		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/29/2023	

Batch R337118		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.25		1.24	1.250	0	99.2	90	110	09/29/2023	

Batch R337118		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-025AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.50	0.5000	0	99.6	85	115	09/29/2023	

Batch R337118		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-025AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	102.0	0.4980	2.38	09/29/2023		

Batch R337118		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-026AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.50	0.5000	0	100.8	85	115	09/29/2023	

Batch R337118		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-026AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrite (as N)		0.05		0.50	0.5000	0	100.4	0.5040	0.40	09/29/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-NO3 F (DISSOLVED) 2000, 2011

Batch R336967		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.250	H	3.95	1.250	2.716	98.6	85	115	09/27/2023	

Batch R336967		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-001BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrate-Nitrite (as N)		0.250	H	4.02	1.250	2.716	104.3	3.948	1.81	09/27/2023		

Batch R336967		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-036BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.249	0.2500	0.01300	94.4	85	115	09/27/2023	

Batch R336967		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-036BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.247	0.2500	0.01300	93.6	0.2490	0.81	09/27/2023		

Batch R337069		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-008BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.219	0.2500	0	87.6	85	115	09/28/2023	

Batch R337069		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-008BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.226	0.2500	0	90.4	0.2190	3.15	09/28/2023		

Batch R337069		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-023BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.265	0.2500	0.01500	100.0	85	115	09/28/2023	

Batch R337069		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-023BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.266	0.2500	0.01500	100.4	0.2650	0.38	09/28/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-NO3 F (DISSOLVED) 2000, 2011

Batch R337069		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-037BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.246	0.2500	0	98.4	85	115	09/28/2023	

Batch R337069		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-037BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.247	0.2500	0	98.8	0.2460	0.41	09/28/2023		

Batch R337205		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-021BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.500		7.52	2.500	5.092	97.1	85	115	09/29/2023	

Batch R337205		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-021BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrate-Nitrite (as N)		0.500		7.41	2.500	5.092	92.6	7.520	1.53	09/29/2023		

STANDARD METHODS 4500-NO3 F (TOTAL) 2000, 2011

Batch R336967		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate (as N)		0.050		< 0.050						09/27/2023	
Nitrogen, Nitrate-Nitrite (as N)		0.050		< 0.050	0.0090	0	0	-100	100	09/27/2023	

Batch R336967		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.507	0.5000	0	101.4	90	110	09/27/2023	

Batch R336967		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-003AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.250		4.23	1.250	2.874	108.4	85	115	09/27/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-NO3 F (TOTAL) 2000, 2011

Batch R336967		SampType: MSD		Units mg/L				RPD Limit: 10			Date Analyzed
SampID: 23091473-003AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.250		4.24	1.250	2.874	109.0	4.229	0.19	09/27/2023	

Batch R336967		SampType: MS		Units mg/L				RPD Limit: 10		Date Analyzed
SampID: 23091473-044AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.284	0.2500	0.02400	104.0	85	115	09/27/2023

Batch R336967		SampType: MSD		Units mg/L				RPD Limit: 10			Date Analyzed
SampID: 23091473-044AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.286	0.2500	0.02400	104.8	0.2840	0.70	09/27/2023	

Batch R337069		SampType: MBLK		Units mg/L				RPD Limit: 10		Date Analyzed
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate (as N)		0.050		< 0.050						09/28/2023
Nitrogen, Nitrate-Nitrite (as N)		0.050		< 0.050	0.0090	0	0	-100	100	09/28/2023

Batch R337069		SampType: LCS		Units mg/L				RPD Limit: 10		Date Analyzed
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.516	0.5000	0	103.2	90	110	09/28/2023

Batch R337069		SampType: MS		Units mg/L				RPD Limit: 10		Date Analyzed
SampID: 23091473-022AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.300	0.2500	0.08300	86.8	85	115	09/28/2023

Batch R337069		SampType: MSD		Units mg/L				RPD Limit: 10			Date Analyzed
SampID: 23091473-022AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.329	0.2500	0.08300	98.4	0.3000	9.22	09/28/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-NO3 F (TOTAL) 2000, 2011

Batch R337069		SampType: MS		Units mg/L							
SampID: 23091473-033AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.250	S	3.74	1.250	2.263	117.8	85	115	09/28/2023	

Batch R337069		SampType: MSD		Units mg/L							
SampID: 23091473-033AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.250		3.57	1.250	2.263	104.7	3.735	4.46	09/28/2023	

Batch R337205		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate (as N)		0.050		< 0.050						09/29/2023	
Nitrogen, Nitrate-Nitrite (as N)		0.050		< 0.050	0.0090	0	0	-100	100	09/29/2023	

Batch R337205		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.522	0.5000	0	104.4	90	110	09/29/2023	

Batch R337205		SampType: MS		Units mg/L							
SampID: 23091473-017AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.100		1.30	0.5000	0.7940	101.0	85	115	09/29/2023	

Batch R337205		SampType: MSD		Units mg/L							
SampID: 23091473-017AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.100		1.30	0.5000	0.7940	100.6	1.299	0.15	09/29/2023	

Batch R337205		SampType: MS		Units mg/L							
SampID: 23091473-032AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.250		3.60	1.250	2.305	103.6	85	115	09/29/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-NO3 F (TOTAL) 2000, 2011

Batch	R337205	SampType:	MSD	Units mg/L			RPD Limit: 10				Date Analyzed
SampID: 23091473-032AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Nitrogen, Nitrate-Nitrite (as N)		0.250		3.65	1.250	2.305	107.5	3.600	1.35	09/29/2023	

STANDARD METHODS 4500-P E (DISSOLVED) 1999, 2011

Batch	R336947	SampType:	MS	Units mg/L			RPD Limit: 10				Date Analyzed
SampID: 23091473-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Phosphorus, Orthophosphate (as P)		0.010		0.052	0.0500	0	104.0	85	115	09/27/2023	

Batch	R336947	SampType:	MSD	Units mg/L			RPD Limit: 10				Date Analyzed
SampID: 23091473-002BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Phosphorus, Orthophosphate (as P)		0.010		0.053	0.0500	0	106.0	0.05200	1.90	09/27/2023	

Batch	R336947	SampType:	MS	Units mg/L			RPD Limit: 10				Date Analyzed
SampID: 23091473-036BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Phosphorus, Orthophosphate (as P)		0.010		0.121	0.0500	0.07000	102.0	85	115	09/27/2023	

Batch	R336947	SampType:	MSD	Units mg/L			RPD Limit: 10				Date Analyzed
SampID: 23091473-036BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Phosphorus, Orthophosphate (as P)		0.010		0.116	0.0500	0.07000	92.0	0.1210	4.22	09/27/2023	

Batch	R337056	SampType:	MS	Units mg/L			RPD Limit: 10				Date Analyzed
SampID: 23091473-004BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Phosphorus, Orthophosphate (as P)		0.010		0.045	0.0500	0	90.0	85	115	09/28/2023	

Batch	R337056	SampType:	MSD	Units mg/L			RPD Limit: 10				Date Analyzed
SampID: 23091473-004BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Phosphorus, Orthophosphate (as P)		0.010		0.044	0.0500	0	88.0	0.04500	2.25	09/28/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-P E (DISSOLVED) 1999, 2011

Batch R337056		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-005BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		0.061	0.0500	0.01800	86.0	85	115	09/28/2023	

Batch R337056		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-005BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Phosphorus, Orthophosphate (as P)		0.010		0.063	0.0500	0.01800	90.0	0.06100	3.23	09/28/2023		

Batch R337056		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-007BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		0.057	0.0500	0.01100	92.0	85	115	09/28/2023	

Batch R337056		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-007BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Phosphorus, Orthophosphate (as P)		0.010		0.060	0.0500	0.01100	98.0	0.05700	5.13	09/28/2023		

Batch R337056		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-009BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		0.067	0.0500	0.02000	94.0	85	115	09/28/2023	

Batch R337056		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-009BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Phosphorus, Orthophosphate (as P)		0.010		0.068	0.0500	0.02000	96.0	0.06700	1.48	09/28/2023		

Batch R337073		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-017BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		0.065	0.0500	0.01700	96.0	85	115	09/29/2023	

Batch R337073		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-017BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Phosphorus, Orthophosphate (as P)		0.010		0.066	0.0500	0.01700	98.0	0.06500	1.53	09/29/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: JOP-23Q3

Work Order: 23091473
Report Date: 16-Nov-23

STANDARD METHODS 4500-P E (DISSOLVED) 1999, 2011

Batch R337073		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-018BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		0.068	0.0500	0.01300	110.0	85	115	09/29/2023	

Batch R337073		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-018BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Phosphorus, Orthophosphate (as P)		0.010		0.068	0.0500	0.01300	110.0	0.06800	0.00	09/29/2023		

STANDARD METHODS 4500-P E 1999, 2011

Batch R336947		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		< 0.010	0.0020	0	0	-100	100	09/27/2023	

Batch R336947		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		0.102	0.1000	0	102.0	90	110	09/27/2023	

Batch R336947		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		0.052	0.0500	0.005000	94.0	85	115	09/27/2023	

Batch R336947		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-002AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Phosphorus, Orthophosphate (as P)		0.010		0.052	0.0500	0.005000	94.0	0.05200	0.00	09/27/2023		

Batch R337056		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		< 0.010	0.0020	0	0	-100	100	09/28/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

STANDARD METHODS 4500-P E 1999, 2011

Batch R337056		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		0.105	0.1000	0	105.0	90	110	09/28/2023	

Batch R337073		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		< 0.010	0.0020	0	0	-100	100	09/29/2023	

Batch R337073		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Phosphorus, Orthophosphate (as P)		0.010		0.098	0.1000	0	98.0	90	110	09/29/2023	

SW-846 9036 (DISSOLVED)

Batch R337008		SampType: MBLK		Units mg/L							
SampID: MB-R337008											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	09/27/2023	

Batch R337008		SampType: LCS		Units mg/L							
SampID: LCS-R337008											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	93.6	90	110	09/27/2023	

Batch R337008		SampType: MS		Units mg/L							
SampID: 23091473-035BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100	S	289	200.0	124.6	82.3	85	115	09/27/2023	

Batch R337008		SampType: MSD		Units mg/L							
SampID: 23091473-035BMDS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		296	200.0	124.6	85.5	289.1	2.20	09/27/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9036 (DISSOLVED)

Batch R337008		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-038BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		360	200.0	178.3	90.7	85	115	09/27/2023	

Batch R337008		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-038BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		100		363	200.0	178.3	92.6	359.6	1.03	09/27/2023		

Batch R337145		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MB-R337145											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10	J	6	6.280	0	100.0	-100	100	09/29/2023	

Batch R337145		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-R337145											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	92.8	90	110	09/29/2023	

Batch R337255		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-006BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		472	200.0	267.2	102.3	85	115	10/03/2023	

Batch R337255		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-006BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		100		450	200.0	267.2	91.4	471.8	4.74	10/03/2023		

Batch R337255		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-022BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50	S	158	100.0	74.07	83.7	85	115	10/03/2023	

Batch R337255		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-022BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		50		159	100.0	74.07	85.2	157.8	0.99	10/03/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9036 (DISSOLVED)

Batch R337255		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-025BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10	SE	52	20.00	35.09	83.7	85	115	10/03/2023	

Batch R337255		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-025BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		10	E	53	20.00	35.09	87.4	51.83	1.42	10/03/2023		

Batch R337324		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-019BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50	S	167	100.0	159.3	7.5	85	115	10/04/2023	

Batch R337324		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-019BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		50	S	168	100.0	159.3	8.4	166.8	0.54	10/04/2023		

SW-846 9036 (TOTAL)

Batch R337008		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	09/27/2023	

Batch R337008		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	93.6	90	110	09/27/2023	

Batch R337008		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-035AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100	S	489	200.0	127.1	181.0	85	115	09/27/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9036 (TOTAL)

Batch R337008		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 23091473-035AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100	SR	120	200.0	127.1	-3.3	489.0	120.93	09/27/2023	

Batch R337008		SampType: MS		Units mg/L				RPD Limit: 10			
SampID: 23091473-038AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		354	200.0	179.5	87.1	85	115	09/27/2023	

Batch R337008		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 23091473-038AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		360	200.0	179.5	90.1	353.8	1.65	09/27/2023	

Batch R337145		SampType: MBLK		Units mg/L				RPD Limit: 10			
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10	J	6	6.280	0	100.0	-100	100	09/29/2023	

Batch R337145		SampType: LCS		Units mg/L				RPD Limit: 10			
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	92.8	90	110	09/29/2023	

Batch R337255		SampType: MBLK		Units mg/L				RPD Limit: 10			
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	10/03/2023	

Batch R337255		SampType: LCS		Units mg/L				RPD Limit: 10			
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	93.4	90	110	10/03/2023	

Batch R337255		SampType: MS		Units mg/L				RPD Limit: 10			
SampID: 23091473-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		452	200.0	268.3	91.8	85	115	10/03/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9036 (TOTAL)

Batch R337255		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 23091473-006AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		447	200.0	268.3	89.2	451.9	1.19	10/03/2023	

Batch R337255		SampType: MS		Units mg/L				RPD Limit: 10			
SampID: 23091473-018AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		351	200.0	179.4	86.0	85	115	10/04/2023	

Batch R337255		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 23091473-018AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		357	200.0	179.4	89.0	351.3	1.70	10/04/2023	

Batch R337255		SampType: MS		Units mg/L				RPD Limit: 10			
SampID: 23091473-030AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		465	200.0	280.7	92.0	85	115	10/04/2023	

Batch R337255		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 23091473-030AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		466	200.0	280.7	92.6	464.7	0.25	10/04/2023	

Batch R337324		SampType: MBLK		Units mg/L				RPD Limit: 10			
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	10/04/2023	

Batch R337324		SampType: LCS		Units mg/L				RPD Limit: 10			
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	95.3	90	110	10/04/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9060A

Batch R337063 SampType: MBLK Units mg/L

SampID: Filter Blank

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Dissolved Organic Carbon		1.0		< 1.0	0.4500	0	0	-100	100	09/28/2023

Batch R337063 SampType: MBLK Units mg/L

SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)		1.0		< 1.0	0.4500	0	0	-100	100	09/28/2023

Batch R337063 SampType: LCS Units mg/L

SampID: ICV/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)		1.0		4.9	5.000	0	98.6	90	110	09/28/2023

Batch R337063 SampType: MS Units mg/L

SampID: 23091473-001EMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)		1.0		5.9	5.000	0.8100	101.8	85	115	09/28/2023

Batch R337063 SampType: MSD Units mg/L

SampID: 23091473-001EMSD

RPD Limit: 10

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Organic Carbon (TOC)		1.0		5.9	5.000	0.8100	102.4	5.900	0.51	09/28/2023

Batch R337063 SampType: MS Units mg/L

SampID: 23091473-015FMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Dissolved Organic Carbon		1.0		8.7	5.000	3.280	108.2	85	115	09/28/2023

Batch R337063 SampType: MSD Units mg/L

SampID: 23091473-015FMSD

RPD Limit: 10

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Dissolved Organic Carbon		1.0		8.6	5.000	3.280	105.4	8.690	1.62	09/28/2023

Batch R337063 SampType: MS Units mg/L

SampID: 23091473-035EMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)		1.0		5.8	5.000	0.7300	100.8	85	115	09/28/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9060A

Batch R337063		SampType: MSD		Units mg/L			RPD Limit: 10			
SampID: 23091473-035EMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Organic Carbon (TOC)		1.0		5.8	5.000	0.7300	102.0	5.770	1.03	09/28/2023

Batch R337063		SampType: MS		Units mg/L						
SampID: 23091473-043EMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)		1.0		9.1	5.000	4.360	94.0	85	115	09/28/2023

Batch R337063		SampType: MSD		Units mg/L			RPD Limit: 10			
SampID: 23091473-043EMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Organic Carbon (TOC)		1.0		9.0	5.000	4.360	93.4	9.060	0.33	09/28/2023

Batch R337210		SampType: MBLK		Units mg/L						
SampID: Filter Blank										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Dissolved Organic Carbon		1.0		< 1.0	0.4500	0	0	-100	100	10/02/2023

Batch R337210		SampType: MBLK		Units mg/L						
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)		1.0		< 1.0	0.4500	0	0	-100	100	10/02/2023

Batch R337210		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)		1.0		5.0	5.000	0	100.2	90	110	10/02/2023

Batch R337210		SampType: MS		Units mg/L						
SampID: 23091473-004EMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)		1.0		8.0	5.000	2.930	100.6	85	115	10/02/2023

Batch R337210		SampType: MSD		Units mg/L			RPD Limit: 10			
SampID: 23091473-004EMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Organic Carbon (TOC)		1.0		7.9	5.000	2.930	99.2	7.960	0.88	10/02/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9060A

Batch R337210		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-019EMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Organic Carbon (TOC)		1.0		5.6	5.000	0.4800	101.4	85	115	10/02/2023	

Batch R337210		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-019EMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Organic Carbon (TOC)		1.0		5.4	5.000	0.4800	99.2	5.550	2.00	10/02/2023		

Batch R337210		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-020FMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Dissolved Organic Carbon		1.0		6.0	5.000	1.040	98.8	85	115	10/02/2023	

Batch R337210		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-020FMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Dissolved Organic Carbon		1.0		6.0	5.000	1.040	100.0	5.980	1.00	10/02/2023		

Batch R337210		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-023EMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Organic Carbon (TOC)		1.0		6.2	5.000	1.300	98.8	85	115	10/02/2023	

Batch R337210		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-023EMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Organic Carbon (TOC)		1.0		6.2	5.000	1.300	97.8	6.240	0.80	10/02/2023		

Batch R337210		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-030EMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Organic Carbon (TOC)		1.0		5.8	5.000	0.5900	104.4	85	115	10/02/2023	

Batch R337210		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-030EMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Organic Carbon (TOC)		1.0		5.7	5.000	0.5900	102.2	5.810	1.91	10/02/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9060A

Batch R337210		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-030FMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Dissolved Organic Carbon		1.0		6.1	5.000	1.070	100.2	85	115	10/02/2023	

Batch R337210		SampType: MSD		Units mg/L							RPD Limit: 10	Date Analyzed
SampID: 23091473-030FMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Dissolved Organic Carbon		1.0		6.0	5.000	1.070	99.0	6.080	0.99	10/02/2023		

SW-846 9214 (TOTAL)

Batch R336932		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0500	0	0	-100	100	09/27/2023	

Batch R336932		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		1.02	1.000	0	101.6	90	110	09/27/2023	

Batch R336932		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-040AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.36	2.000	0.2480	105.8	75	125	09/27/2023	

Batch R336932		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23091473-040AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride		0.10		2.36	2.000	0.2480	105.8	2.365	0.00	09/27/2023		

Batch R336932		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-047AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.33	2.000	0.2730	102.8	75	125	09/27/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9214 (TOTAL)

Batch R336932		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 23091473-047AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.33	2.000	0.2730	102.6	2.328	0.09	09/27/2023	

Batch R337213		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0500	0	0	-100	100	10/03/2023	

Batch R337213		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		1.00	1.000	0	99.6	90	110	10/03/2023	

Batch R337213		SampType: MS		Units mg/L							
SampID: 23091473-011AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.20	2.000	0.2010	100.1	75	125	10/03/2023	

Batch R337213		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 23091473-011AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.23	2.000	0.2010	101.5	2.203	1.22	10/03/2023	

Batch R337213		SampType: MS		Units mg/L							
SampID: 23091473-028AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.52	2.000	0.3400	109.0	75	125	10/03/2023	

Batch R337213		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 23091473-028AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.56	2.000	0.3400	110.8	2.521	1.42	10/03/2023	

Batch R337213		SampType: MS		Units mg/L							
SampID: 23091473-029AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.73	2.000	0.3860	117.1	75	125	10/03/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9214 (TOTAL)

Batch R337213		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 23091473-029AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.63	2.000	0.3860	112.4	2.728	3.54	10/03/2023	

Batch R337213		SampType: MS		Units mg/L				RPD Limit: 15			
SampID: 23091473-046AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.15	2.000	0	107.4	75	125	10/03/2023	

Batch R337213		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 23091473-046AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.18	2.000	0	109.2	2.148	1.71	10/03/2023	

Batch R337213		SampType: MS		Units mg/L				RPD Limit: 15			
SampID: 23091473-048AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.42	2.000	0.2820	106.9	75	125	10/03/2023	

Batch R337213		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 23091473-048AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.38	2.000	0.2820	104.8	2.420	1.71	10/03/2023	

SW-846 9251 (DISSOLVED)

Batch R337023		SampType: MS		Units mg/L				RPD Limit: 15			
SampID: 23091473-035BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		25	20.00	3.760	107.0	85	115	09/27/2023	

Batch R337023		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 23091473-035BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4		24	20.00	3.760	102.4	25.17	3.81	09/27/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9251 (DISSOLVED)

Batch R337023		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-038BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		39	20.00	19.98	93.2	85	115	09/27/2023	

Batch R337023		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23091473-038BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		39	20.00	19.98	95.2	38.62	1.06	09/27/2023		

Batch R337287		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-006BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		38	20.00	20.49	87.8	85	115	10/03/2023	

Batch R337287		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23091473-006BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		39	20.00	20.49	91.6	38.05	1.98	10/03/2023		

Batch R337287		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-019BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		37	20.00	18.98	89.4	85	115	10/03/2023	

Batch R337287		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23091473-019BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		37	20.00	18.98	88.0	36.85	0.76	10/03/2023		

Batch R337287		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-022BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		40	20.00	22.06	88.0	85	115	10/03/2023	

Batch R337287		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23091473-022BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		40	20.00	22.06	87.6	39.67	0.20	10/03/2023		



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9251 (DISSOLVED)

Batch R337287		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-025BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		42	20.00	25.42	85.1	85	115	10/03/2023	

Batch R337287		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23091473-025BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		43	20.00	25.42	87.5	42.44	1.10	10/03/2023		

SW-846 9251 (TOTAL)

Batch R337023		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	09/27/2023	

Batch R337023		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		20	20.00	0	99.6	90	110	09/27/2023	

Batch R337023		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-035AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		24	20.00	3.980	100.2	85	115	09/27/2023	

Batch R337023		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23091473-035AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		24	20.00	3.980	98.1	24.03	1.81	09/27/2023		

Batch R337023		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-038AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		39	20.00	20.03	96.3	85	115	09/27/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9251 (TOTAL)

Batch R337023		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 23091473-038AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4		39	20.00	20.03	95.7	39.29	0.33	09/27/2023	

Batch R337157		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	09/29/2023	

Batch R337157		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		20	20.00	0	100.0	90	110	09/29/2023	

Batch R337287		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	10/03/2023	

Batch R337287		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		20	20.00	0	99.4	90	110	10/03/2023	

Batch R337287		SampType: MS		Units mg/L							
SampID: 23091473-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		38	20.00	20.78	87.2	85	115	10/03/2023	

Batch R337287		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 23091473-006AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4		39	20.00	20.78	89.7	38.21	1.33	10/03/2023	

Batch R337287		SampType: MS		Units mg/L							
SampID: 23091473-018AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		40	20.00	22.30	89.8	85	115	10/04/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 9251 (TOTAL)

Batch R337287		SampType: MSD		Units mg/L			RPD Limit: 15			
SampID: 23091473-018AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		4		41	20.00	22.30	91.1	40.27	0.62	10/04/2023

Batch R337287		SampType: MS		Units mg/L						
SampID: 23091473-030AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		37	20.00	19.01	88.0	85	115	10/04/2023

Batch R337287		SampType: MSD		Units mg/L			RPD Limit: 15			
SampID: 23091473-030AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		4		37	20.00	19.01	88.6	36.61	0.33	10/04/2023

Batch R337334		SampType: MBLK		Units mg/L						
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		< 4	0.5000	0	0	-100	100	10/04/2023

Batch R337334		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		20	20.00	0	100.3	90	110	10/04/2023

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 212672		SampType: MBLK		Units mg/L						
SampID: MBLK-212672										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		< 0.0250	0.0127	0	0	-100	100	10/02/2023
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	10/02/2023
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	10/02/2023
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	10/02/2023
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	10/02/2023
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	10/02/2023
Silicon	*	0.0500		< 0.0500	0.0122	0	0	-100	100	10/02/2023
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	10/02/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 212672 SampType: LCS Units mg/L
SampID: LCS-212672

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		2.33	2.500	0	93.3	85	115	10/02/2023
Iron		0.0400		1.77	2.000	0	88.7	85	115	10/02/2023
Magnesium		0.0500		2.35	2.500	0	94.1	85	115	10/03/2023
Manganese		0.0070		0.436	0.5000	0	87.2	85	115	10/02/2023
Potassium		0.100		2.30	2.500	0	92.2	85	115	10/02/2023
Silicon	*	0.0500		0.500	0.5000	0	99.9	85	115	10/03/2023
Sodium		0.0500		2.16	2.500	0	86.6	85	115	10/02/2023

Batch 212672 SampType: MS Units mg/L
SampID: 23091473-022DMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100	S	29.9	2.500	29.47	15.6	75	125	10/02/2023
Magnesium		0.0500	S	14.6	2.500	13.21	53.8	75	125	10/02/2023
Potassium		0.100		2.67	2.500	0.1971	98.8	75	125	10/02/2023
Silicon	*	0.0500	S	17.8	0.5000	18.31	-100.5	75	125	10/02/2023
Sodium		0.0500	S	60.5	2.500	60.96	-18.0	75	125	10/02/2023

Batch 212672 SampType: MSD Units mg/L
SampID: 23091473-022DMSD

RPD Limit: 20

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Calcium		0.100	S	29.9	2.500	29.47	17.6	29.86	0.17	10/02/2023
Magnesium		0.0500	S	14.6	2.500	13.21	54.5	14.56	0.11	10/02/2023
Potassium		0.100		2.70	2.500	0.1971	100.1	2.667	1.17	10/02/2023
Silicon	*	0.0500	S	17.8	0.5000	18.31	-99.5	17.81	0.03	10/02/2023
Sodium		0.0500	S	60.5	2.500	60.96	-18.4	60.51	0.02	10/02/2023

Batch 212672 SampType: MS Units mg/L
SampID: 23091473-023DMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100	S	132	2.500	132.4	-3.2	75	125	10/02/2023
Magnesium		0.0500	S	24.1	2.500	22.45	65.8	75	125	10/02/2023
Potassium		0.100		5.60	2.500	3.288	92.5	75	125	10/02/2023
Silicon	*	0.0500	S	7.16	0.5000	6.829	65.3	75	125	10/02/2023
Sodium		0.0500	S	34.0	2.500	32.48	62.4	75	125	10/02/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 212672		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23091473-023DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	130	2.500	132.4	-78.8	132.3	1.44	10/02/2023	
Magnesium		0.0500	S	23.9	2.500	22.45	56.7	24.09	0.95	10/02/2023	
Potassium		0.100		5.58	2.500	3.288	91.6	5.600	0.37	10/02/2023	
Silicon	*	0.0500	S	7.06	0.5000	6.829	45.4	7.155	1.40	10/02/2023	
Sodium		0.0500	S	33.7	2.500	32.48	48.0	34.04	1.06	10/02/2023	

Batch 212674		SampType: MBLK		Units mg/L							
SampID: MBLK-212674											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Aluminum		0.0250		< 0.0250	0.0127	0	0	-100	100	10/02/2023	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	10/02/2023	
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	10/02/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	10/02/2023	
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	10/02/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	10/02/2023	
Silicon	*	0.0500		< 0.0500	0.0122	0	0	-100	100	10/02/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	10/02/2023	

Batch 212674		SampType: LCS		Units mg/L							
SampID: LCS-212674											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Aluminum		0.0250		1.79	2.000	0	89.6	85	115	10/02/2023	
Calcium		0.100		2.46	2.500	0	98.5	85	115	10/02/2023	
Iron		0.0400		1.88	2.000	0	94.2	85	115	10/02/2023	
Magnesium		0.0500		2.21	2.500	0	88.3	85	115	10/02/2023	
Manganese		0.0070		0.462	0.5000	0	92.3	85	115	10/02/2023	
Potassium		0.100		2.42	2.500	0	96.8	85	115	10/02/2023	
Silicon	*	0.0500		0.485	0.5000	0	97.0	85	115	10/03/2023	
Sodium		0.0500		2.28	2.500	0	91.3	85	115	10/02/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 212674 SampType: MS Units mg/L

SampleID: 23091473-029DMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100	S	97.5	2.500	97.60	-3.2	75	125	10/02/2023
Magnesium		0.0500	S	25.0	2.500	23.38	66.6	75	125	10/02/2023
Potassium		0.100		3.97	2.500	1.506	98.6	75	125	10/02/2023
Silicon	*	0.0500	S	6.25	0.5000	5.921	66.4	75	125	10/02/2023
Sodium		0.0500	S	33.5	2.500	32.34	48.0	75	125	10/02/2023

Batch 212674 SampType: MSD Units mg/L

RPD Limit: 20

SampleID: 23091473-029DMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Calcium		0.100	S	96.2	2.500	97.60	-56.0	97.52	1.36	10/02/2023
Magnesium		0.0500	S	24.8	2.500	23.38	56.5	25.05	1.01	10/02/2023
Potassium		0.100		4.02	2.500	1.506	100.4	3.970	1.12	10/02/2023
Silicon	*	0.0500	S	6.16	0.5000	5.921	47.9	6.253	1.49	10/02/2023
Sodium		0.0500	S	33.2	2.500	32.34	34.8	33.54	0.99	10/02/2023

Batch 212674 SampType: MS Units mg/L

SampleID: 23091473-037DMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100	S	36.5	2.500	35.15	55.6	75	125	10/02/2023
Magnesium		0.0500	S	17.0	2.500	15.31	66.5	75	125	10/02/2023
Potassium		0.100		2.73	2.500	0.2692	98.4	75	125	10/02/2023
Silicon	*	0.0500	S	18.2	0.5000	18.32	-22.3	75	125	10/02/2023
Sodium		0.0500	S	46.4	2.500	45.84	21.6	75	125	10/02/2023

Batch 212674 SampType: MSD Units mg/L

RPD Limit: 20

SampleID: 23091473-037DMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Calcium		0.100	S	36.4	2.500	35.15	50.0	36.54	0.38	10/02/2023
Magnesium		0.0500	S	16.9	2.500	15.31	64.2	16.97	0.33	10/02/2023
Potassium		0.100		2.81	2.500	0.2692	101.8	2.730	3.06	10/02/2023
Silicon	*	0.0500	S	18.2	0.5000	18.32	-25.8	18.21	0.10	10/02/2023
Sodium		0.0500	S	46.6	2.500	45.84	30.0	46.38	0.45	10/02/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 212689 SampType: MBLK Units mg/L

SampID: MBLK-212689

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		< 0.0250	0.0127	0	0	-100	100	10/02/2023
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	10/02/2023
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	10/02/2023
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	10/02/2023
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	10/02/2023
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	10/02/2023
Silicon	*	0.0500		< 0.0500	0.0122	0	0	-100	100	10/02/2023
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	10/02/2023

Batch 212689 SampType: LCS Units mg/L

SampID: LCS-212689

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		1.78	2.000	0	88.8	85	115	10/02/2023
Calcium		0.100		2.47	2.500	0	98.9	85	115	10/02/2023
Iron		0.0400		1.89	2.000	0	94.6	85	115	10/02/2023
Magnesium		0.0500		2.22	2.500	0	88.8	85	115	10/02/2023
Manganese		0.0070		0.464	0.5000	0	92.9	85	115	10/02/2023
Potassium		0.100		2.42	2.500	0	96.9	85	115	10/02/2023
Silicon	*	0.0500		0.474	0.5000	0	94.7	85	115	10/03/2023
Sodium		0.0500		2.28	2.500	0	91.1	85	115	10/02/2023

Batch 212689 SampType: MS Units mg/L

SampID: 23091473-044DMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		13.4	2.500	10.96	98.4	75	125	10/02/2023
Magnesium		0.0500		2.37	2.500	0.03270	93.3	75	125	10/02/2023
Potassium		1.00		27.4	2.500	25.38	82.4	75	125	10/03/2023
Silicon	*	0.0500		5.56	0.5000	5.130	86.1	75	125	10/02/2023
Sodium		0.0500	S	99.1	2.500	97.76	53.6	75	125	10/02/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 212689		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23091473-044DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100		13.5	2.500	10.96	100.0	13.42	0.30	10/02/2023	
Magnesium		0.0500		2.39	2.500	0.03270	94.1	2.366	0.85	10/02/2023	
Potassium		1.00	S	26.7	2.500	25.38	53.6	27.44	2.67	10/03/2023	
Silicon	*	0.0500		5.60	0.5000	5.130	93.5	5.560	0.67	10/02/2023	
Sodium		0.0500		99.9	2.500	97.76	84.8	99.10	0.78	10/02/2023	

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 212544		SampType: MBLK		Units mg/L							
SampID: MBLK-212544											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	09/28/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	09/28/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	09/28/2023	
Silicon	*	0.0500		< 0.0500	0.0122	0	0	-100	100	09/28/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	09/28/2023	

Batch 212544 SampType: LCS Units mg/L

SampID: LCS-212544											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.56	2.500	0	102.5	85	115	09/28/2023	
Magnesium		0.0500		2.32	2.500	0	92.9	85	115	09/28/2023	
Potassium		0.100		2.52	2.500	0	100.8	85	115	09/28/2023	
Silicon	*	0.0500		0.455	0.5000	0	91.0	85	115	09/28/2023	
Sodium		0.0500		2.46	2.500	0	98.3	85	115	09/28/2023	

Batch 212544 SampType: MS Units mg/L

SampID: 23091473-035CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		31.4	2.500	28.74	104.8	75	125	09/30/2023	
Magnesium		0.0500		14.6	2.500	12.16	98.8	75	125	09/30/2023	
Potassium		0.100		2.93	2.500	0.3187	104.5	75	125	09/30/2023	
Silicon	*	0.0500		23.8	0.5000	23.25	117.4	75	125	09/30/2023	
Sodium		0.0500		34.9	2.500	32.67	89.6	75	125	09/30/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 212544		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23091473-035CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100		31.5	2.500	28.74	110.0	31.36	0.41	09/30/2023	
Magnesium		0.0500		14.7	2.500	12.16	101.7	14.63	0.50	09/30/2023	
Potassium		0.100		2.93	2.500	0.3187	104.5	2.932	0.01	09/30/2023	
Silicon	*	0.0500	S	24.0	0.5000	23.25	160.3	23.83	0.90	09/30/2023	
Sodium		0.0500		35.1	2.500	32.67	96.0	34.91	0.46	09/30/2023	

Batch 212596		SampType: MBLK		Units mg/L							
SampID: MBLK-212596											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	09/29/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	09/29/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	09/29/2023	
Silicon	*	0.0500		< 0.0500	0.0122	0	0	-100	100	09/29/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	09/29/2023	

Batch 212596		SampType: LCS		Units mg/L							
SampID: LCS-212596											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.60	2.500	0	104.0	85	115	09/29/2023	
Magnesium		0.0500		2.52	2.500	0	100.9	85	115	09/29/2023	
Potassium		0.100		2.61	2.500	0	104.2	85	115	09/29/2023	
Silicon	*	0.0500		0.496	0.5000	0	99.2	85	115	09/29/2023	
Sodium		0.0500		2.49	2.500	0	99.7	85	115	09/29/2023	

Batch 212596		SampType: MS		Units mg/L							
SampID: 23091473-017CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100	S	88.3	2.500	84.83	140.0	75	125	09/29/2023	
Magnesium		0.0500		27.9	2.500	25.04	115.0	75	125	09/29/2023	
Potassium		0.100		4.37	2.500	1.685	107.3	75	125	09/29/2023	
Silicon	*	0.0500		7.46	0.5000	6.926	107.2	75	125	10/02/2023	
Sodium		0.0500		31.5	2.500	28.82	106.0	75	125	09/29/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 212596		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23091473-017CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100		87.6	2.500	84.83	112.0	88.33	0.80	09/29/2023	
Magnesium		0.0500		27.7	2.500	25.04	106.5	27.92	0.76	09/29/2023	
Potassium		0.100		4.30	2.500	1.685	104.6	4.366	1.50	09/29/2023	
Silicon	*	0.0500	S	7.29	0.5000	6.926	73.6	7.462	2.27	10/02/2023	
Sodium		0.0500		31.1	2.500	28.82	92.4	31.47	1.09	09/29/2023	

Batch 212657		SampType: MBLK		Units mg/L							
SampID: MBLK-212657											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	10/02/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	10/02/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	10/02/2023	
Silicon	*	0.0500		< 0.0500	0.0122	0	0	-100	100	10/02/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	10/02/2023	

Batch 212657		SampType: LCS		Units mg/L							
SampID: LCS-212657											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.65	2.500	0	105.9	85	115	10/02/2023	
Magnesium		0.0500		2.31	2.500	0	92.2	85	115	10/02/2023	
Potassium		0.100		2.73	2.500	0	109.1	85	115	10/02/2023	
Silicon	*	0.0500		0.474	0.5000	0	94.7	85	115	10/02/2023	
Sodium		0.0500		2.58	2.500	0	103.1	85	115	10/02/2023	

Batch 212657		SampType: MS		Units mg/L							
SampID: 23091473-026CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100	S	66.7	2.500	62.50	168.8	75	125	10/02/2023	
Magnesium		0.0500		22.3	2.500	19.33	117.2	75	125	10/02/2023	
Potassium		0.100		3.81	2.500	1.240	102.8	75	125	10/02/2023	
Silicon	*	0.0500		7.22	0.5000	6.601	124.7	75	125	10/02/2023	
Sodium		0.0500		37.9	2.500	35.70	86.8	75	125	10/02/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 212657		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23091473-026CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	67.5	2.500	62.50	198.4	66.72	1.10	10/02/2023	
Magnesium		0.0500	S	22.6	2.500	19.33	132.4	22.26	1.69	10/02/2023	
Potassium		0.100		3.91	2.500	1.240	106.6	3.809	2.49	10/02/2023	
Silicon	*	0.0500	S	7.40	0.5000	6.601	159.7	7.224	2.40	10/02/2023	
Sodium		0.0500	S	39.0	2.500	35.70	130.0	37.87	2.81	10/02/2023	

Batch 212717		SampType: MBLK		Units mg/L							
SampID: MBLK-212717											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	10/03/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	10/03/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	10/03/2023	
Silicon	*	0.0500		< 0.0500	0.0122	0	0	-100	100	10/03/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	10/03/2023	

Batch 212717		SampType: LCS		Units mg/L							
SampID: LCS-212717											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.58	2.500	0	103.0	85	115	10/03/2023	
Magnesium		0.0500		2.45	2.500	0	98.2	85	115	10/03/2023	
Potassium		0.100		2.61	2.500	0	104.2	85	115	10/03/2023	
Silicon	*	0.0500		0.497	0.5000	0	99.4	85	115	10/03/2023	
Sodium		0.0500		2.49	2.500	0	99.8	85	115	10/03/2023	

Batch 212717		SampType: MS		Units mg/L							
SampID: 23091473-031CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100	S	56.9	2.500	55.14	71.6	75	125	10/03/2023	
Magnesium		0.0500		18.1	2.500	15.95	87.1	75	125	10/03/2023	
Potassium		0.100		3.90	2.500	1.345	102.1	75	125	10/03/2023	
Silicon	*	0.0500		6.63	0.5000	6.190	87.5	75	125	10/03/2023	
Sodium		0.0500		21.1	2.500	19.22	75.2	75	125	10/03/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 212717		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23091473-031CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100		57.0	2.500	55.14	76.0	56.93	0.19	10/03/2023	
Magnesium		0.0500		18.1	2.500	15.95	86.2	18.13	0.12	10/03/2023	
Potassium		0.100		3.84	2.500	1.345	99.7	3.897	1.55	10/03/2023	
Silicon	*	0.0500		6.63	0.5000	6.190	88.0	6.628	0.03	10/03/2023	
Sodium		0.0500	S	20.8	2.500	19.22	61.2	21.10	1.67	10/03/2023	

Batch 212717		SampType: MS		Units mg/L							
SampID: 23091473-047CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100	S	48.3	2.500	44.82	139.2	75	125	10/03/2023	
Magnesium		0.0500		17.2	2.500	14.43	110.2	75	125	10/03/2023	
Potassium		0.100		3.33	2.500	0.7167	104.6	75	125	10/03/2023	
Silicon	*	0.0500	S	22.2	0.5000	21.38	161.2	75	125	10/03/2023	
Sodium		0.0500		28.8	2.500	26.52	90.0	75	125	10/03/2023	

Batch 212717		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 23091473-047CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100		47.3	2.500	44.82	100.8	48.30	2.01	10/03/2023	
Magnesium		0.0500		16.8	2.500	14.43	93.8	17.19	2.42	10/03/2023	
Potassium		0.100		3.31	2.500	0.7167	103.9	3.330	0.52	10/03/2023	
Silicon	*	0.0500		21.9	0.5000	21.38	104.9	22.19	1.28	10/03/2023	
Sodium		0.0500		28.6	2.500	26.52	81.2	28.77	0.77	10/03/2023	

Batch 212976		SampType: MBLK		Units mg/L							
SampID: MBLK-212976											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	10/09/2023	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	10/09/2023	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	10/09/2023	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	10/09/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 212976 SampType: LCS Units mg/L

SampID: LCS-212976

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		2.50	2.500	0	100.1	85	115	10/09/2023
Magnesium		0.0500		2.37	2.500	0	94.7	85	115	10/09/2023
Potassium		0.100		2.54	2.500	0	101.7	85	115	10/09/2023
Sodium		0.0500		2.43	2.500	0	97.1	85	115	10/09/2023

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

Batch 212672 SampType: MBLK Units mg/L

SampID: MBLK-212672

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		< 0.0250	0.0125	0	0	-100	100	10/03/2023
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/05/2023
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/03/2023

Batch 212672 SampType: LCS Units mg/L

SampID: LCS-212672

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		1.69	2.000	0	84.5	80	120	10/03/2023
Iron		0.0250		1.74	2.000	0	87.0	80	120	10/05/2023
Manganese		0.0020		0.455	0.5000	0	91.1	80	120	10/03/2023

Batch 212672 SampType: MS Units mg/L

SampID: 23091473-022DMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		1.77	2.000	0	88.5	75	125	10/03/2023
Iron		0.0250		1.80	2.000	0.1759	81.4	75	125	10/05/2023
Manganese		0.0020		0.433	0.5000	0	86.6	75	125	10/03/2023

Batch 212672 SampType: MSD Units mg/L

SampID: 23091473-022DMSD

RPD Limit: 20

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Aluminum		0.0250		1.70	2.000	0	85.0	1.769	3.98	10/03/2023
Iron		0.0250	R	2.57	2.000	0.1759	119.7	1.804	35.00	10/05/2023
Manganese		0.0020		0.440	0.5000	0	88.1	0.4328	1.72	10/03/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

Batch 212672		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-023DMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Aluminum		0.0250		1.66	2.000	0	82.9	75	125	10/03/2023	
Iron		0.0250		1.75	2.000	0.08038	83.2	75	125	10/05/2023	
Manganese		0.0080		9.21	0.5000	8.755	91.5	75	125	10/04/2023	

Batch 212672		SampType: MSD		Units mg/L							RPD Limit: 20	Date Analyzed
SampID: 23091473-023DMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Aluminum		0.0250		1.67	2.000	0	83.4	1.657	0.72	10/03/2023		
Iron		0.0250	S	1.56	2.000	0.08038	74.2	1.745	10.99	10/05/2023		
Manganese		0.0080		9.35	0.5000	8.755	119.8	9.212	1.53	10/04/2023		

Batch 212674		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-212674											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Aluminum		0.0250		< 0.0250	0.0125	0	0	-100	100	10/03/2023	
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/04/2023	
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/03/2023	

Batch 212674		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-212674											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Aluminum		0.0250		1.89	2.000	0	94.4	80	120	10/03/2023	
Iron		0.0250		1.92	2.000	0	96.1	80	120	10/04/2023	
Manganese		0.0020		0.484	0.5000	0	96.8	80	120	10/03/2023	

Batch 212674		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-029DMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Aluminum		0.0250		1.84	2.000	0	91.8	75	125	10/03/2023	
Iron		0.0250		2.81	2.000	0.9849	91.1	75	125	10/04/2023	
Manganese		0.0020		0.621	0.5000	0.1397	96.3	75	125	10/03/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

Batch 212674		SampType: MSD		Units mg/L				RPD Limit: 20			Date Analyzed
SampID: 23091473-029DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Aluminum		0.0250		1.88	2.000	0	94.2	1.837	2.53	10/03/2023	
Iron		0.0250		2.86	2.000	0.9849	93.5	2.807	1.74	10/04/2023	
Manganese		0.0020		0.634	0.5000	0.1397	98.8	0.6213	2.00	10/03/2023	

Batch 212674		SampType: MS		Units mg/L				RPD Limit: 20		Date Analyzed
SampID: 23091473-037DMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		1.74	2.000	0	86.9	75	125	10/04/2023
Iron		0.0250		1.77	2.000	0.1009	83.4	75	125	10/05/2023
Manganese		0.0020		0.551	0.5000	0.1718	75.9	75	125	10/04/2023

Batch 212674		SampType: MSD		Units mg/L				RPD Limit: 20			Date Analyzed
SampID: 23091473-037DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Aluminum		0.0250		1.87	2.000	0	93.3	1.739	7.07	10/04/2023	
Iron		0.0250		1.63	2.000	0.1009	76.6	1.769	8.03	10/05/2023	
Manganese		0.0020		0.602	0.5000	0.1718	86.0	0.5513	8.76	10/04/2023	

Batch 212689		SampType: MBLK		Units mg/L				RPD Limit: 20		Date Analyzed
SampID: MBLK-212689										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		< 0.0250	0.0125	0	0	-100	100	10/04/2023
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/04/2023
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/04/2023

Batch 212689		SampType: LCS		Units mg/L				RPD Limit: 20		Date Analyzed
SampID: LCS-212689										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		1.91	2.000	0	95.6	80	120	10/04/2023
Iron		0.0250	S	3.36	2.000	0	168.2	80	120	10/04/2023
Iron		0.0250		1.76	2.000	0	88.1	80	120	10/05/2023
Manganese		0.0020		0.503	0.5000	0	100.6	80	120	10/04/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

Batch 212689		SampType: MS		Units mg/L						
SampID: 23091473-044DMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		8.99	2.000	7.136	92.5	75	125	10/04/2023
Iron		0.0250		1.80	2.000	0	89.8	75	125	10/04/2023
Manganese		0.0020		0.477	0.5000	0	95.3	75	125	10/04/2023

Batch 212689		SampType: MSD		Units mg/L						
SampID: 23091473-044DMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Aluminum		0.0250		9.07	2.000	7.136	96.7	8.985	0.94	10/04/2023
Iron		0.0250		1.82	2.000	0	91.0	1.795	1.39	10/04/2023
Manganese		0.0020		0.472	0.5000	0	94.4	0.4765	0.94	10/04/2023

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212544		SampType: MBLK		Units mg/L						
SampID: MBLK-212544										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		< 0.0250	0.0125	0	0	-100	100	10/02/2023
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	09/29/2023
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	09/29/2023
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	09/29/2023
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	09/29/2023
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	09/29/2023
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	09/29/2023
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	10/02/2023
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	09/29/2023
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	09/29/2023
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	09/29/2023
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	09/29/2023
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	09/29/2023
Molybdenum	*	0.0015		< 0.0015	0.0006	0	0	-100	100	09/29/2023
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	09/29/2023
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	09/29/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212544		SampType: LCS		Units mg/L							Date
SampID: LCS-212544											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Aluminum		0.0250		2.03	2.000	0	101.7	80	120	10/02/2023	
Antimony		0.0010		0.533	0.5000	0	106.6	80	120	10/02/2023	
Arsenic		0.0010		0.523	0.5000	0	104.5	80	120	10/02/2023	
Barium		0.0010		2.17	2.000	0	108.4	80	120	09/29/2023	
Beryllium		0.0010		0.0528	0.0500	0	105.6	80	120	09/29/2023	
Boron		0.0250		0.491	0.5000	0	98.1	80	120	09/29/2023	
Cadmium		0.0010		0.0523	0.0500	0	104.7	80	120	09/29/2023	
Chromium		0.0015		0.205	0.2000	0	102.5	80	120	10/02/2023	
Cobalt		0.0010		0.500	0.5000	0	100.0	80	120	09/29/2023	
Iron		0.0250		2.10	2.000	0	104.8	80	120	09/29/2023	
Lead		0.0010		0.543	0.5000	0	108.5	80	120	09/29/2023	
Lithium	*	0.0030		0.568	0.5000	0	113.5	80	120	09/29/2023	
Manganese		0.0020		0.515	0.5000	0	103.0	80	120	10/02/2023	
Molybdenum	*	0.0015		0.495	0.5000	0	99.0	80	120	09/29/2023	
Selenium		0.0010		0.495	0.5000	0	99.1	80	120	10/02/2023	
Thallium		0.0020		0.259	0.2500	0	103.8	80	120	09/29/2023	

Batch 212544		SampType: MS		Units mg/L							Date
SampID: 23091473-035CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Aluminum		0.0250		2.20	2.000	0.3315	93.4	75	125	10/02/2023	
Antimony		0.0010		0.493	0.5000	0	98.6	75	125	10/02/2023	
Arsenic		0.0010		0.454	0.5000	0	90.7	75	125	10/02/2023	
Barium		0.0010		1.96	2.000	0.03486	96.1	75	125	10/02/2023	
Beryllium		0.0010	S	0.0710	0.0500	0	141.9	75	125	09/29/2023	
Cadmium		0.0010	S	0.0708	0.0500	0	141.5	75	125	09/29/2023	
Chromium		0.0015		0.179	0.2000	0.001690	88.7	75	125	10/02/2023	
Cobalt		0.0010		0.444	0.5000	0.0007748	88.7	75	125	10/02/2023	
Iron		0.0250	S	1.94	2.000	0.5421	70.1	75	125	10/05/2023	
Lead		0.0010	S	0.718	0.5000	0	143.6	75	125	09/29/2023	
Lithium	*	0.0030		0.476	0.5000	0.005808	94.0	75	125	10/02/2023	
Manganese		0.0020		0.456	0.5000	0.02214	86.8	75	125	10/02/2023	
Molybdenum	*	0.0015	S	0.671	0.5000	0	134.3	75	125	09/29/2023	
Selenium		0.0010		0.433	0.5000	0.005102	85.5	75	125	10/02/2023	
Thallium		0.0020	S	0.340	0.2500	0	135.9	75	125	09/29/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212544		SampType: MSD		Units mg/L			RPD Limit: 20			
SampID: 23091473-035CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Aluminum		0.0250		2.29	2.000	0.3315	98.1	2.199	4.22	10/02/2023
Antimony		0.0010		0.497	0.5000	0	99.4	0.4929	0.82	10/02/2023
Arsenic		0.0010		0.480	0.5000	0	96.0	0.4536	5.62	10/02/2023
Barium		0.0010		2.00	2.000	0.03486	98.4	1.956	2.31	10/02/2023
Beryllium		0.0010	S	0.0702	0.0500	0	140.3	0.07097	1.13	09/29/2023
Cadmium		0.0010	S	0.0691	0.0500	0	138.2	0.07076	2.38	09/29/2023
Chromium		0.0015		0.187	0.2000	0.001690	92.9	0.1791	4.56	10/02/2023
Cobalt		0.0010		0.472	0.5000	0.0007748	94.3	0.4441	6.12	10/02/2023
Iron		0.0250		2.17	2.000	0.5421	81.4	1.945	10.91	10/05/2023
Lead		0.0010	S	0.693	0.5000	0	138.6	0.7179	3.52	09/29/2023
Lithium	*	0.0030		0.490	0.5000	0.005808	96.8	0.4760	2.90	10/02/2023
Manganese		0.0020		0.487	0.5000	0.02214	93.0	0.4562	6.58	10/02/2023
Molybdenum	*	0.0015	S	0.655	0.5000	0	131.1	0.6713	2.38	09/29/2023
Selenium		0.0010		0.462	0.5000	0.005102	91.4	0.4326	6.63	10/02/2023
Thallium		0.0020	S	0.323	0.2500	0	129.3	0.3396	4.97	09/29/2023

Batch 212596 SampType: MBLK Units mg/L

SampID: MBLK-212596										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		< 0.0250	0.0125	0	0	-100	100	10/02/2023
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	10/02/2023
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	10/02/2023
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	10/03/2023
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	10/02/2023
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	10/02/2023
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	10/02/2023
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	10/02/2023
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	10/02/2023
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/02/2023
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	10/02/2023
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	10/02/2023
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/02/2023
Molybdenum	*	0.0015		< 0.0015	0.0006	0	0	-100	100	10/02/2023
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	10/02/2023
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	10/02/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212596		SampType: LCS		Units mg/L							Date
SampID: LCS-212596											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Aluminum		0.0250		1.83	2.000	0	91.6	80	120	10/02/2023	
Antimony		0.0010		0.559	0.5000	0	111.9	80	120	10/02/2023	
Arsenic		0.0010		0.560	0.5000	0	112.0	80	120	10/02/2023	
Barium		0.0010		1.92	2.000	0	96.1	80	120	10/03/2023	
Beryllium		0.0010		0.0536	0.0500	0	107.2	80	120	10/02/2023	
Boron		0.0250		0.466	0.5000	0	93.3	80	120	10/02/2023	
Cadmium		0.0010		0.0515	0.0500	0	103.0	80	120	10/02/2023	
Chromium		0.0015		0.203	0.2000	0	101.7	80	120	10/02/2023	
Cobalt		0.0010		0.521	0.5000	0	104.2	80	120	10/02/2023	
Iron		0.0250		2.17	2.000	0	108.6	80	120	10/02/2023	
Lead		0.0010		0.492	0.5000	0	98.3	80	120	10/02/2023	
Lithium	*	0.0030		0.534	0.5000	0	106.7	80	120	10/02/2023	
Manganese		0.0020		0.496	0.5000	0	99.2	80	120	10/02/2023	
Molybdenum	*	0.0015		0.500	0.5000	0	100.0	80	120	10/02/2023	
Selenium		0.0010		0.468	0.5000	0	93.6	80	120	10/02/2023	
Thallium		0.0020		0.246	0.2500	0	98.5	80	120	10/02/2023	

Batch 212596		SampType: MS		Units mg/L							Date
SampID: 23091473-017CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Aluminum		0.0250		1.97	2.000	0	98.7	75	125	10/02/2023	
Antimony		0.0010		0.575	0.5000	0	115.1	75	125	10/02/2023	
Arsenic		0.0010		0.558	0.5000	0	111.6	75	125	10/02/2023	
Barium		0.0010		1.99	2.000	0.02822	98.2	75	125	10/03/2023	
Beryllium		0.0010		0.0618	0.0500	0	123.7	75	125	10/02/2023	
Boron		0.0250		7.07	0.5000	6.576	99.7	75	125	10/02/2023	
Cadmium		0.0010		0.0540	0.0500	0	108.0	75	125	10/02/2023	
Chromium		0.0015		0.210	0.2000	0.0007244	104.8	75	125	10/02/2023	
Cobalt		0.0010		0.517	0.5000	0	103.3	75	125	10/02/2023	
Iron		0.0250		2.09	2.000	0.06497	101.3	75	125	10/02/2023	
Lead		0.0010		0.520	0.5000	0	103.9	75	125	10/02/2023	
Lithium	*	0.0030		0.598	0.5000	0	119.6	75	125	10/02/2023	
Manganese		0.0020		0.508	0.5000	0.004257	100.7	75	125	10/02/2023	
Molybdenum	*	0.0015		0.504	0.5000	0	100.8	75	125	10/02/2023	
Selenium		0.0010		0.459	0.5000	0	91.9	75	125	10/02/2023	
Thallium		0.0020		0.265	0.2500	0	106.0	75	125	10/02/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212596		SampType: MSD		Units mg/L				RPD Limit: 20			Date
SampID: 23091473-017CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Aluminum		0.0250		1.88	2.000	0	94.1	1.974	4.73	10/02/2023	
Antimony		0.0010		0.537	0.5000	0	107.4	0.5755	6.90	10/02/2023	
Arsenic		0.0010		0.575	0.5000	0	115.0	0.5578	3.00	10/02/2023	
Barium		0.0010		1.96	2.000	0.02822	96.7	1.992	1.47	10/03/2023	
Beryllium		0.0010		0.0618	0.0500	0	123.5	0.06185	0.15	10/02/2023	
Boron		0.0250		7.05	0.5000	6.576	95.6	7.075	0.29	10/02/2023	
Cadmium		0.0010		0.0505	0.0500	0	101.0	0.05398	6.66	10/02/2023	
Chromium		0.0015		0.204	0.2000	0.0007244	101.7	0.2103	2.95	10/02/2023	
Cobalt		0.0010		0.515	0.5000	0	102.9	0.5166	0.36	10/02/2023	
Iron		0.0250		2.13	2.000	0.06497	103.4	2.090	1.99	10/02/2023	
Lead		0.0010		0.493	0.5000	0	98.5	0.5195	5.34	10/02/2023	
Lithium	*	0.0030		0.588	0.5000	0	117.5	0.5982	1.80	10/02/2023	
Manganese		0.0020		0.511	0.5000	0.004257	101.3	0.5078	0.60	10/02/2023	
Molybdenum	*	0.0015		0.500	0.5000	0	100.0	0.5042	0.88	10/02/2023	
Selenium		0.0010		0.479	0.5000	0	95.7	0.4593	4.11	10/02/2023	
Thallium		0.0020		0.238	0.2500	0	95.1	0.2650	10.89	10/02/2023	

Batch 212657 SampType: MBLK Units mg/L

SampID: MBLK-212657										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		< 0.0250	0.0125	0	0	-100	100	10/06/2023
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	10/03/2023
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	10/03/2023
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	10/03/2023
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	10/03/2023
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	10/03/2023
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	10/03/2023
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	10/03/2023
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	10/03/2023
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/05/2023
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	10/03/2023
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	10/03/2023
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/03/2023
Molybdenum	*	0.0015		< 0.0015	0.0006	0	0	-100	100	10/03/2023
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	10/03/2023
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	10/03/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212657		SampType: LCS		Units mg/L							Date
SampID: LCS-212657											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Aluminum		0.0250		2.20	2.000	0	110.2	80	120	10/06/2023	
Antimony		0.0010		0.494	0.5000	0	98.8	80	120	10/03/2023	
Arsenic		0.0010		0.511	0.5000	0	102.3	80	120	10/03/2023	
Barium		0.0010		2.01	2.000	0	100.5	80	120	10/03/2023	
Beryllium		0.0010		0.0490	0.0500	0	98.0	80	120	10/03/2023	
Boron		0.0250		0.518	0.5000	0	103.6	80	120	10/03/2023	
Cadmium		0.0010		0.0490	0.0500	0	97.9	80	120	10/03/2023	
Chromium		0.0015		0.191	0.2000	0	95.3	80	120	10/03/2023	
Cobalt		0.0010		0.493	0.5000	0	98.7	80	120	10/03/2023	
Iron		0.0250		1.95	2.000	0	97.4	80	120	10/05/2023	
Lead		0.0010		0.502	0.5000	0	100.5	80	120	10/03/2023	
Lithium	*	0.0030		0.504	0.5000	0	100.9	80	120	10/03/2023	
Manganese		0.0020		0.495	0.5000	0	99.0	80	120	10/03/2023	
Molybdenum	*	0.0015		0.489	0.5000	0	97.8	80	120	10/03/2023	
Selenium		0.0010		0.478	0.5000	0	95.6	80	120	10/03/2023	
Thallium		0.0020		0.265	0.2500	0	106.1	80	120	10/03/2023	

Batch 212657		SampType: MS		Units mg/L							Date
SampID: 23091473-026CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Aluminum		0.0250		2.06	2.000	0.02151	101.8	75	125	10/06/2023	
Antimony		0.0010		0.472	0.5000	0	94.3	75	125	10/03/2023	
Arsenic		0.0010		0.495	0.5000	0	99.0	75	125	10/03/2023	
Barium		0.0010		1.99	2.000	0.07412	95.9	75	125	10/03/2023	
Beryllium		0.0010		0.0489	0.0500	0	97.7	75	125	10/03/2023	
Boron		0.0250		1.13	0.5000	0.6680	91.8	75	125	10/03/2023	
Cadmium		0.0010		0.0471	0.0500	0	94.2	75	125	10/03/2023	
Chromium		0.0015		0.187	0.2000	0.001241	92.6	75	125	10/03/2023	
Cobalt		0.0010		0.471	0.5000	0.0001511	94.1	75	125	10/03/2023	
Iron		0.0250		2.01	2.000	0.2050	90.0	75	125	10/05/2023	
Lead		0.0010		0.511	0.5000	0	102.3	75	125	10/03/2023	
Lithium	*	0.0030		0.495	0.5000	0.001896	98.6	75	125	10/03/2023	
Manganese		0.0020		0.485	0.5000	0.01078	94.8	75	125	10/03/2023	
Molybdenum	*	0.0015		0.485	0.5000	0	97.0	75	125	10/04/2023	
Selenium		0.0010		0.457	0.5000	0.001224	91.1	75	125	10/03/2023	
Thallium		0.0020		0.245	0.2500	0	98.1	75	125	10/03/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212657		SampType: MSD		Units mg/L			RPD Limit: 20			
SampID: 23091473-026CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Aluminum		0.0250		2.08	2.000	0.02151	103.0	2.058	1.11	10/06/2023
Antimony		0.0010		0.484	0.5000	0	96.7	0.4717	2.46	10/03/2023
Arsenic		0.0010		0.516	0.5000	0	103.3	0.4950	4.26	10/03/2023
Barium		0.0010		2.06	2.000	0.07412	99.1	1.992	3.14	10/03/2023
Beryllium		0.0010		0.0502	0.0500	0	100.5	0.04887	2.74	10/03/2023
Boron		0.0250		1.23	0.5000	0.6680	112.1	1.127	8.62	10/03/2023
Cadmium		0.0010		0.0475	0.0500	0	95.0	0.04712	0.78	10/03/2023
Chromium		0.0015		0.192	0.2000	0.001241	95.2	0.1865	2.71	10/03/2023
Cobalt		0.0010		0.485	0.5000	0.0001511	97.0	0.4707	3.03	10/03/2023
Iron		0.0250		1.93	2.000	0.2050	86.2	2.005	3.91	10/05/2023
Lead		0.0010		0.514	0.5000	0	102.8	0.5115	0.45	10/03/2023
Lithium	*	0.0030		0.509	0.5000	0.001896	101.5	0.4951	2.81	10/03/2023
Manganese		0.0020		0.495	0.5000	0.01078	96.9	0.4848	2.19	10/03/2023
Molybdenum	*	0.0015		0.499	0.5000	0	99.8	0.4851	2.80	10/04/2023
Selenium		0.0010		0.481	0.5000	0.001224	96.0	0.4568	5.21	10/03/2023
Thallium		0.0020		0.250	0.2500	0	100.2	0.2452	2.12	10/03/2023

Batch 212717		SampType: MBLK		Units mg/L						
SampID: MBLK-212717										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		< 0.0250	0.0125	0	0	-100	100	10/04/2023
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	10/04/2023
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	10/04/2023
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	10/04/2023
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	10/04/2023
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	10/04/2023
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	10/04/2023
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	10/04/2023
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	10/04/2023
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/09/2023
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	10/04/2023
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	10/04/2023
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/04/2023
Molybdenum	*	0.0015		< 0.0015	0.0006	0	0	-100	100	10/04/2023
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	10/04/2023
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	10/04/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212717		SampType: LCS		Units mg/L							Date
SampID: LCS-212717											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Aluminum		0.0250		2.07	2.000	0	103.5	80	120	10/04/2023	
Antimony		0.0010		0.547	0.5000	0	109.4	80	120	10/04/2023	
Arsenic		0.0010		0.512	0.5000	0	102.5	80	120	10/04/2023	
Barium		0.0010		2.16	2.000	0	107.9	80	120	10/04/2023	
Beryllium		0.0010		0.0506	0.0500	0	101.2	80	120	10/04/2023	
Boron		0.0250		0.521	0.5000	0	104.2	80	120	10/04/2023	
Cadmium		0.0010		0.0517	0.0500	0	103.4	80	120	10/04/2023	
Chromium		0.0015		0.201	0.2000	0	100.6	80	120	10/04/2023	
Cobalt		0.0010		0.495	0.5000	0	99.1	80	120	10/04/2023	
Iron		0.0250		1.71	2.000	0	85.4	80	120	10/09/2023	
Lead		0.0010		0.542	0.5000	0	108.4	80	120	10/04/2023	
Lithium	*	0.0030		0.531	0.5000	0	106.2	80	120	10/04/2023	
Manganese		0.0020		0.521	0.5000	0	104.2	80	120	10/04/2023	
Molybdenum	*	0.0015		0.495	0.5000	0	99.1	80	120	10/04/2023	
Selenium		0.0010		0.497	0.5000	0	99.3	80	120	10/04/2023	
Thallium		0.0020		0.254	0.2500	0	101.5	80	120	10/04/2023	

Batch 212717		SampType: MS		Units mg/L							Date
SampID: 23091473-031CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Aluminum		0.0250		2.09	2.000	0.1052	99.4	75	125	10/04/2023	
Antimony		0.0010		0.529	0.5000	0	105.9	75	125	10/04/2023	
Arsenic		0.0010		0.496	0.5000	0.0005566	99.0	75	125	10/04/2023	
Barium		0.0010		2.17	2.000	0.1183	102.4	75	125	10/04/2023	
Beryllium		0.0010		0.0507	0.0500	0	101.5	75	125	10/04/2023	
Boron		0.0250	S	1.19	0.5000	0.8962	58.8	75	125	10/04/2023	
Cadmium		0.0010		0.0507	0.0500	0	101.3	75	125	10/04/2023	
Chromium		0.0015		0.196	0.2000	0.001699	97.0	75	125	10/04/2023	
Cobalt		0.0010		0.476	0.5000	0.0005268	95.1	75	125	10/04/2023	
Iron		0.0250		3.25	2.000	0.9571	114.7	75	125	10/09/2023	
Lead		0.0010		0.531	0.5000	0	106.2	75	125	10/04/2023	
Lithium	*	0.0030		0.515	0.5000	0	103.0	75	125	10/04/2023	
Manganese		0.0020		0.558	0.5000	0.05514	100.7	75	125	10/09/2023	
Molybdenum	*	0.0015		0.480	0.5000	0.004482	95.0	75	125	10/04/2023	
Selenium		0.0010		0.476	0.5000	0	95.1	75	125	10/04/2023	
Thallium		0.0020		0.248	0.2500	0	99.1	75	125	10/04/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212717		SampType: MSD		Units mg/L				RPD Limit: 20			Date
SampID: 23091473-031CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Aluminum		0.0250		2.11	2.000	0.1052	100.5	2.093	1.02	10/04/2023	
Antimony		0.0010		0.527	0.5000	0	105.5	0.5293	0.36	10/04/2023	
Arsenic		0.0010		0.484	0.5000	0.0005566	96.7	0.4955	2.30	10/04/2023	
Barium		0.0010		2.19	2.000	0.1183	103.5	2.167	0.94	10/04/2023	
Beryllium		0.0010		0.0502	0.0500	0	100.4	0.05074	1.09	10/04/2023	
Boron		0.0250	S	1.19	0.5000	0.8962	57.8	1.190	0.42	10/04/2023	
Cadmium		0.0010		0.0491	0.0500	0	98.2	0.05067	3.13	10/04/2023	
Chromium		0.0015		0.196	0.2000	0.001699	97.1	0.1957	0.12	10/04/2023	
Cobalt		0.0010		0.477	0.5000	0.0005268	95.2	0.4761	0.13	10/04/2023	
Iron		0.0250	R	2.49	2.000	0.9571	76.9	3.252	26.34	10/09/2023	
Lead		0.0010		0.527	0.5000	0	105.5	0.5308	0.64	10/04/2023	
Lithium	*	0.0030		0.519	0.5000	0	103.8	0.5151	0.71	10/04/2023	
Manganese		0.0020		0.556	0.5000	0.05514	100.1	0.5585	0.53	10/09/2023	
Molybdenum	*	0.0015		0.478	0.5000	0.004482	94.7	0.4796	0.29	10/04/2023	
Selenium		0.0010		0.471	0.5000	0	94.2	0.4756	0.96	10/04/2023	
Thallium		0.0020		0.244	0.2500	0	97.5	0.2478	1.63	10/04/2023	

Batch 212717		SampType: MS		Units mg/L						Date
SampID: 23091473-047CMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aluminum		0.0250		1.97	2.000	0.03177	97.0	75	125	10/04/2023
Antimony		0.0010		0.524	0.5000	0	104.9	75	125	10/04/2023
Arsenic		0.0010		0.550	0.5000	0.001276	109.7	75	125	10/09/2023
Barium		0.0010		2.32	2.000	0.2419	103.7	75	125	10/04/2023
Beryllium		0.0010		0.0495	0.0500	0	99.0	75	125	10/04/2023
Boron		0.0250		0.522	0.5000	0.03137	98.1	75	125	10/04/2023
Cadmium		0.0010		0.0495	0.0500	0	99.0	75	125	10/04/2023
Chromium		0.0015		0.194	0.2000	0	96.8	75	125	10/04/2023
Cobalt		0.0010		0.505	0.5000	0.003189	100.4	75	125	10/09/2023
Iron		0.0250		2.87	2.000	0.6584	110.8	75	125	10/09/2023
Lead		0.0010		0.526	0.5000	0	105.2	75	125	10/04/2023
Lithium	*	0.0030		0.515	0.5000	0.002571	102.4	75	125	10/04/2023
Manganese		0.0020		0.690	0.5000	0.1897	100.0	75	125	10/09/2023
Molybdenum	*	0.0015		0.511	0.5000	0.001260	101.9	75	125	10/10/2023
Selenium		0.0010		0.477	0.5000	0	95.3	75	125	10/04/2023
Thallium		0.0020		0.245	0.2500	0	98.1	75	125	10/04/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212717		SampType: MSD		Units mg/L			RPD Limit: 20				Date Analyzed
SampID: 23091473-047CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Aluminum		0.0250		2.03	2.000	0.03177	100.1	1.971	3.10	10/04/2023	
Antimony		0.0010		0.542	0.5000	0	108.4	0.5244	3.26	10/04/2023	
Arsenic		0.0010		0.543	0.5000	0.001276	108.3	0.5498	1.33	10/09/2023	
Barium		0.0010		2.48	2.000	0.2419	111.9	2.316	6.84	10/04/2023	
Beryllium		0.0010		0.0502	0.0500	0	100.5	0.04949	1.48	10/04/2023	
Boron		0.0250		0.521	0.5000	0.03137	97.9	0.5218	0.20	10/04/2023	
Cadmium		0.0010		0.0506	0.0500	0	101.2	0.04950	2.21	10/04/2023	
Chromium		0.0015		0.198	0.2000	0	99.1	0.1935	2.43	10/04/2023	
Cobalt		0.0010		0.505	0.5000	0.003189	100.4	0.5053	0.00	10/09/2023	
Iron		0.0250	SR	3.71	2.000	0.6584	152.8	2.874	25.50	10/09/2023	
Lead		0.0010		0.519	0.5000	0	103.8	0.5258	1.30	10/04/2023	
Lithium	*	0.0030		0.517	0.5000	0.002571	102.9	0.5146	0.53	10/04/2023	
Manganese		0.0020		0.695	0.5000	0.1897	101.0	0.6898	0.70	10/09/2023	
Molybdenum	*	0.0015		0.507	0.5000	0.001260	101.2	0.5105	0.69	10/10/2023	
Selenium		0.0010		0.489	0.5000	0	97.8	0.4765	2.55	10/04/2023	
Thallium		0.0020		0.247	0.2500	0	98.8	0.2452	0.77	10/04/2023	

Batch 212976		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-212976											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	10/10/2023	
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	10/10/2023	
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	10/10/2023	

Batch 212976		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-212976											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Arsenic		0.0010		0.518	0.5000	0	103.6	85	115	10/10/2023	
Boron		0.0250		0.499	0.5000	0	99.9	80	120	10/10/2023	
Selenium		0.0010		0.471	0.5000	0	94.3	80	120	10/10/2023	

Batch 212976		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-035CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Boron		0.0250	S	1.15	0.5000	0.8993	50.7	75	125	10/10/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 212976		SampType: MSD		Units mg/L		RPD Limit: 20				
SampID: 23091473-035CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Boron		0.0250	S	1.12	0.5000	0.8993	43.4	1.153	3.24	10/10/2023

SW-846 7470A (TOTAL)

Batch 212516		SampType: MBLK		Units mg/L						
SampID: MBLK-212516										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	09/29/2023

Batch 212516		SampType: LCS		Units mg/L						
SampID: LCS-212516										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00522	0.0050	0	104.3	85	115	09/29/2023

Batch 212516		SampType: MS		Units mg/L						
SampID: 23091473-041CMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00512	0.0050	0	102.4	75	125	09/29/2023

Batch 212516		SampType: MSD		Units mg/L		RPD Limit: 15				
SampID: 23091473-041CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		0.00498	0.0050	0	99.6	0.005119	2.74	09/29/2023

Batch 212711		SampType: MBLK		Units mg/L						
SampID: MBLK-212711										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	10/03/2023

Batch 212711		SampType: LCS		Units mg/L						
SampID: LCS-212711										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00425	0.0050	0	85.1	85	115	10/03/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

SW-846 7470A (TOTAL)

Batch 212711		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-006CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00520	0.0050	0.00006420	102.7	75	125	10/03/2023	

Batch 212711		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23091473-006CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		0.00518	0.0050	0.00006420	102.3	0.005198	0.40	10/03/2023		

Batch 212712		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-212712											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	10/03/2023	

Batch 212712		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-212712											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00519	0.0050	0	103.9	85	115	10/03/2023	

Batch 212712		SampType: MS		Units mg/L							Date Analyzed
SampID: 23091473-025CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00515	0.0050	0.00006360	101.8	75	125	10/03/2023	

Batch 212712		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 23091473-025CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		0.00528	0.0050	0.00006360	104.4	0.005151	2.52	10/03/2023		



Receiving Check List

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 23091473

Client Project: JOP-23Q3

Report Date: 16-Nov-23

Carrier: Frank Barthol

Received By: MBP

Completed by:

Amber Dilallo

Reviewed by:

Ellie Hopkins

On:

26-Sep-23

Amber Dilallo

On:

29-Sep-23

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Temp °C 5.6
Type of thermal preservation?	None <input type="checkbox"/>	Ice <input checked="" type="checkbox"/>	Blue Ice <input type="checkbox"/>	Dry Ice <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Reported field parameters measured:	Field <input checked="" type="checkbox"/>	Lab <input type="checkbox"/>	NA <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials <input checked="" type="checkbox"/>
Water - TOX containers have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No TOX containers <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/>
NPDES/CWA TCN interferences checked/treated in the field?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Any No responses must be detailed below or on the COC.

pH strip #90719. - amberdilallo - 9/26/2023 5:01:57 PM

pH strip #90719. - amberdilallo - 9/28/2023 9:07:58 AM

Samples collected on 9/27/23 were delivered to the laboratory on 9/27/23 at 1842 (on ice 5.6C - LTG1). AMD/ERH 9/28/23

pH strip #90719. - amberdilallo - 9/29/2023 8:00:30 AM

Samples collected on 9/28/23 were delivered to the laboratory on 9/28/23 at 1505 (on ice 5.8C - LTG1). AMD/ERH 9/29/23

Samples collected on 9/28/23 (G107 and G151) were delivered to the laboratory on 9/29/23 at 0930 (on ice 5.6C - LTG5). Samples were collected in unpreserved containers. Nitric Acid (92447) preservative was added to G107 upon arrival. G151 was split, filtered for the dissolved parameters, and preserved with Nitric Acid (92447) and Sulfuric Acid (90128). - Imaddox - 9/29/2023 12:32:04 PM

Samples collected on 9/28/23 were delivered to the laboratory on 9/28/23 at 0930 (on ice 5.6C - LTG5). LM/ERH 9/29/23

CHAIN-OF-CUSTODY / Analytical Request Document

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT LANDFILL

23091473
JOP-257-402

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 3			
Company: Vistra Corp-Joppa		Report To: Brian Voelker/Sam Davies		Attention: Roger Faughn		REGULATORY AGENCY			
Address: 2100 Portland Road		Copy To: Roger Faughn		Company Name: Vistra Corp				NPDES GROUND WATER DRINKING WATER	
Email To: Brian.Voelker@VistraCorp.com		roger.faughn@vistracorp.com		Address: see Section A				UST RCRA OTHER	
samantha.davies@vistracorp.com		Purchase Order No.:		Quote Reference:		Site Location			
Phone: (217) 753-8911 Fax:		Project Name:		Project Manager:				STATE: 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)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No. / Lab I.D.										
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other																							
1	G01D				9/25/23	1307	6	2	2	2								✓	✓	✓																			23091473-001
2	G02D				9/25/23	1406	6	2	2	2								✓	✓	✓																			002
3	G03				9/26/23	1235	6	2	2	2								✓	✓	✓																			003
4	G05						6	2	2	2								✓	✓	✓																			004
5	G06						6	2	2	2								✓	✓	✓																			005
6	G07						6	2	2	2								✓	✓	✓																			006
7	G08						6	2	2	2								✓	✓	✓																			007
8	G09						6	2	2	2								✓	✓	✓																			008
9	G10						6	2	2	2								✓	✓	✓																			009
10	G101-LF						2	1	1									✓	✓																				010
11	G102						2	1	1									✓	✓																				011
12	G105						2	1	1									✓	✓																				012
13	G107						2	1	1									✓	✓																				013
14	G109						2	1	1									✓	✓																				014
15	G11				9/26/23	1147	6	2	2	2								✓	✓	✓																			015
16	G111-LF						2	1	1									✓	✓																				016

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
JOP-23Q3 Rev 2	<i>Jenny Carroll</i>	9/26/23	1315	<i>FB</i>	9.26.23	1315	5.u	Y	N	Y
	<i>FB</i>	9.26.23	1600	<i>Morgan Perin</i>	9/26/23	1600				

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>Jenny Carroll</i>				
SIGNATURE of SAMPLER:	<i>Jenny Carroll</i>	DATE Signed (MM/DD/YY):	9/26/23		

*Ph checked 90719-WP
9/26*

LTA5

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 3	
Company: Vistra Corp-Joppa		Report To: Brian Voelker/Sam Davies		Attention: Roger Faughn		REGULATORY AGENCY	
Address: 2100 Portland Road		Copy To: Roger Faughn		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		roger.faughn@vistracorp.com		Address: see Section A			
Phone: (217) 753-8911		Purchase Order No.:		Quote Reference:		NPDES GROUND WATER DRINKING WATER	
Requested Due Date/TAT: 10 day		Project Name:		Project Manager:		UST RCRA OTHER	
Fax:		Project Number: 2285		Profile #:		Site Location	
						STATE: IL	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓ Analysis Test ↑	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		JOP-257-401	JOP-257-402	JOP-845-401	JOP-PGMP-401	JOP-SUP-000				
1	G12D					6	2	2	2															23091473-017
2	G12S					6	2	2	2															018
3	G13D					6	2	2	2															019
4	G13S					6	2	2	2															020
5	G151					6	2	2	2															021
6	G153					6	2	2	2															022
7	G16S					6	2	2	2															023
8	G18S					6	2	2	2															024
9	G19D					6	2	2	2															025
10	G19S					6	2	2	2															026
11	G20D					6	2	2	2															027
12	G20S					6	2	2	2															028
13	G21D					6	2	2	2															029
14	G21S					6	2	2	2															030
15	G22D					6	2	2	2															031
16	G22S					6	2	2	2															032

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS		
JOP-23Q3 Rev 2		<i>Tracy Carroll</i>		9/26/23	1315	<i>FB</i>		9.26	1315			
		<i>FB</i>		9.26.23	1600	<i>Monique Perin</i>		9/26/23	1600			

Ph checked 90719 MP 9/26

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>Tracy Carroll</i>				
SIGNATURE of SAMPLER:	<i>Tracy Carroll</i>	DATE Signed (MM/DD/YY):	9/26/23		

CHAIN-OF-CUSTODY / Analytical Request Document

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

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

JOPPA POWER PLANT LANDFILL

JOP-257-402

APPENDIX A.

Page: **3** of **3**

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		REGULATORY AGENCY					
Company: Vistra Corp-Joppa		Report To: Brian Voelker/Sam Davies		Attention: Roger Faughn					NPDES GROUND WATER DRINKING WATER		
Address: 2100 Portland Road		Copy To: Roger Faughn		Company Name: Vistra Corp					UST RCRA OTHER		
Email To: Brian.Voelker@VistraCorp.com		roger.faughn@vistracorp.com		Address: see Section A					Site Location		
samantha.davies@vistracorp.com		Purchase Order No.:		Quote Reference:					STATE: IL		
Phone: (217) 753-8911 Fax:		Project Name:		Project Manager:							
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 (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓ 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 S ₂ O ₃	Methanol	Other				
		DRINKING WATER	DW																		
1	G23S							6	2	2	2									23091473-033	
2	G24S							6	2	2	2									034	
3	G51D					9/25/23	1536	6	2	2	2									035	
4	G52D					9/26/23	1030	6	2	2	2									036	
5	G53D							6	2	2	2									037	
6	G54D					9/26/23	1235	6	2	2	2									038	
7	SG02							0												039	
8	Well 2					9/26/23	0908	6	2	2	2									040	
9	Well 3					9/26/23	0958	6	2	2	2									041	
10	XPW01					9/26/23	926	6	2	2	2									042	
11	XPW02					9/26/23	1011	6	2	2	2									043	
12	XPW03					9/26/23	1051	6	2	2	2									044	
13	XSG01							0												045	
14	Field Blank							6	2	2	2									046	
15	G52D Duplicate					9/26/23	1030	6	2	2	2									047	
16	G12S Duplicate							6	2	2	2									048	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS															
JOP-23Q3 Rev 2	<i>Tracy Council</i>	9/26/23	1315	<i>FB</i>	9.26.23	1315																
	<i>FB</i>	9.26.23	1600	<i>Morgan Peterson</i>	9/26/23	1600																

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>Tracy Council</i>	DATE Signed (MM/DD/YY): <i>9/26/23</i>				
SIGNATURE of SAMPLER: <i>Tracy Council</i>					

PH checked 90719-11P 9/26

JOP-257-402 13

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		REGULATORY AGENCY							
Company: Vistra Corp-Joppa		Report To: Brian Voelker/Sam Davies		Attention: Roger Faughn		Company Name: Vistra Corp		NPDES		GROUND WATER		DRINKING WATER	
Address: 2100 Portland Road		Copy To: Roger Faughn		Address: see Section A		Quote Reference:		UST		RCRA		OTHER	
Email To: Brian.Voelker@VistraCorp.com		roger_faughn@vistracorp.com		Project Name:		Project Manager:		Site Location		IL			
samantha.davies@vistracorp.com		Purchase Order No.:		Profile #:		STATE:							
Phone: (217) 753-8911		Fax:		Project Number: 2285									
Requested Due Date/TAT: 10 day													

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	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	Analysis Test ↓	JOP-257-401	JOP-257-402	JOP-845-401	JOP-PGMP-401	JOP-SUP-000							
1	G01D				6	2	2	2																		23091493-021
2	G02D				6	2	2	2																		022
3	G03				6	2	2	2																		023
4	G05		9/21/23	10:4	6	2	2	2																		024
5	G06		9/21/23	11:16	6	2	2	2																		025
6	G07		9/21/23	11:57	6	2	2	2																		026
7	G08		9/26/23	14:32	6	2	2	2																		027
8	G09		9-26-23	14:10	6	2	2	2																		028
9	G10		9-26-23	13:32	6	2	2	2																		029
10	G101-LF		9-27-23	13:06	2	1		1																		010
11	G102		9-27-23	10:14	2	1		1																		011
12	G105		9-27-23	09:03	2	1		1																		012
13	G107 Dry during purge		9-27-23	dry	2	1		1																		013
14	G109		9-26-23	15:28	2	1		1																		014
15	G11				6	2	2	2																		015
16	G111-LF		9-26-23	14:57	2	1		1																		016

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
JOP-23Q3 Rev 2	J. Goff	9-27	1842	Justin Goff	9/27/23	1842	5.6	Y	N	Y
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: Justin Goff										
SIGNATURE of SAMPLER: <i>Justin Goff</i>							DATE Signed (MM/DD/YY): 9-27-23			

PH ✓ 907A
LTCU
10/11/23 011/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

23091473
JOP-257-402

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 3 of 3	
Company: <u>Vistra Corp-Joppa</u>		Report To: <u>Brian Voelker/Sam Davies</u>		Attention: <u>Roger Faughn</u>		REGULATORY AGENCY	
Address: <u>2100 Portland Road</u>		Copy To: <u>Roger Faughn</u>		Company Name: <u>Vistra Corp</u>			
Email To: <u>Brian.Voelker@VistraCorp.com</u>		<u>roger.faughn@vistracorp.com</u>		Address: <u>see Section A</u>		NPDES GROUND WATER DRINKING WATER	
<u>samantha.davies@vistracorp.com</u>		Purchase Order No.:		Quote Reference:		UST RCRA OTHER	
Phone: (217) 753-8911 Fax:		Project Name:		Project Manager:		Site Location	
Requested Due Date/TAT: 10 day		Project Number: <u>2285</u>		Profile #:		STATE: IL	

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 ↓	Requested Analysis Filtered (Y/N)					Residual Chlorine (Y/N)	Project No./ Lab I.D.			
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		JOP-257-401	JOP-257-402	JOP-845-401	JOP-PGMP-401	JOP-SUP-000					
1	G23S				9-27-23	12:32		6	2	2	2														23091473-033		
2	G24S							6	2	2	2														034		
3	G51D							6	2	2	2														035		
4	G52D							6	2	2	2														036		
5	G53D				9/27/23	931		6	2	2	2														037		
6	G54D							6	2	2	2														038		
7	SG02							0																	039		
8	Well 2							6	2	2	2														040		
9	Well 3							6	2	2	2														041		
10	XPW01							6	2	2	2														042		
11	XPW02							6	2	2	2														043		
12	XPW03							6	2	2	2														044		
13	XSG01							0																	045		
14	Field Blank							6	2	2	2														046		
15	G52D Duplicate							6	2	2	2														047		
16	G12S Duplicate							6	2	2	2														048		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
JOP-23Q3 Rev 2	<u>J. Colp</u>	<u>9-27</u>	<u>1842</u>	<u>Justin Colp</u>	<u>9/27/23</u>	<u>1842</u>	

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: <u>Justin Colp</u>							
SIGNATURE of SAMPLER: <u>[Signature]</u>			DATE Signed (MM/DD/YY): <u>9-27-23</u>				

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:	
Company: <u>Vistra Corp-Joppa</u>		Report To: <u>Brian Voelker/Sam Davies</u>		Attention: <u>Roger Faughn</u>	
Address: <u>2100 Portland Road</u>		Copy To: <u>Roger Faughn</u>		Company Name: <u>Vistra Corp</u>	
Email To: <u>Brian.Voelker@VistraCorp.com</u>		<u>roger.faughn@vistracorp.com</u>		Address: <u>see Section A</u>	
<u>samantha.davies@vistracorp.com</u>		Purchase Order No.:		Quote Reference:	
Phone: (217) 753-8911 Fax:		Project Name:		Project Manager:	
Requested Due Date/TAT: 10 day		Project Number: <u>2285</u>		Profile #:	
REGULATORY AGENCY					
NPDES		GROUND WATER		DRINKING WATER	
UST		RCRA		OTHER	
Site Location				STATE: <u>IL</u>	

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								Requested Analysis Filtered (Y/N)					Residual Chlorine (Y/N)	Project No. / Lab I.D.		
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test ↓	JOP-257-401	JOP-257-402	JOP-845-401	JOP-PGMP-401			JOP-SUP-000	
																									Y
1	G01D						6	2	2	2															230914 93-021
2	G02D						6	2	2	2															002
3	G03						6	2	2	2															003
4	G05						6	2	2	2															004
5	G06						10	2	2	2															005
6	G07						6	2	2	2															006
7	G08						6	2	2	2															007
8	G09						6	2	2	2															008
9	G10						6	2	2	2															009
10	G101-LF						2	1		1															010
11	G102						2	1		1															011
12	G105						2	1		1															012
13	G107						2	1		1															013
14	G109						2	1		1															014
15	G11						6	2	2	2															015
16	G111-LF						2	1		1															016

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
JOP-23Q3 Rev 2	<i>Brett Gilligan</i>	9-28-23	15:05	<i>Brett Gilligan</i>	9-28-23	15:05	58	Y	N	Y

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>Brett Gilligan</i>					
SIGNATURE of SAMPLER: <i>Brett Gilligan</i>					
DATE Signed (MM/DD/YY): <i>9-28-23</i>					

PH V 907K Jms G18hs LGAU

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:		REGULATORY AGENCY	
Company: <u>Vistra Corp-Joppa</u>		Report To: <u>Brian Voelker/Sam Davies</u>		Attention: <u>Roger Faughn</u>		NPDES GROUND WATER DRINKING WATER	
Address: <u>2100 Portland Road</u>		Copy To: <u>Roger Faughn</u>		Company Name: <u>Vistra Corp</u>		UST RCRA OTHER	
Email To: <u>Brian.Voelker@VistraCorp.com</u>		<u>roger.faughn@vistracorp.com</u>		Address: <u>see Section A</u>		Site Location	
<u>samantha.davies@vistracorp.com</u>		Purchase Order No.:		Quote Reference:		STATE: <u>IL</u>	
Phone: (217) 753-8911 Fax:		Project Name:		Project Manager:			
Requested Due Date/TAT: 10 day		Project Number: <u>2285</u>		Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX 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.	
						Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	JOP-257-401	JOP-257-402		JOP-845-401	JOP-PGMP-401	JOP-SUP-000					
						DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME		DATE	TIME	DATE	TIME				
1	G12D				6	2	2	2																23291473-017
2	G12S				6	2	2	2																018
3	G13D				6	2	2	2																019
4	G13S				6	2	2	2																020
5	G151				6	2	2	2																021
6	G153				6	2	2	2																022
7	G16S				6	2	2	2																023
8	G18S				6	2	2	2																024
9	G19D				6	2	2	2																025
10	G19S				6	2	2	2																026
11	G20D				6	2	2	2																027
12	G20S				6	2	2	2																028
13	G21D				6	2	2	2																029
14	G21S				6	2	2	2																030
15	G22D				6	2	2	2																031
16	G22S				6	2	2	2																032

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
JOP-23Q3 Rev 2	<i>Brett Gillman</i>	9-28-23	15:05	<i>Brett Gillman</i>	9-28-23	15:15	
SAMPLER NAME AND SIGNATURE				Temp in °C			
PRINT Name of SAMPLER: <i>Brett Gillman</i>				Received on ice (Y/N)			
SIGNATURE of SAMPLER: <i>Brett Gillman</i>				Custody Sealed Cooler (Y/N)			
DATE Signed (MM/DD/YY): 9-28-23				Samples Intact (Y/N)			

JOP-257-402 73

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:			
Company: <u>Vistra Corp-Joppa</u>		Report To: <u>Brian Voelker/Sam Davies</u>		Attention: <u>Roger Faughn</u>			
Address: <u>2100 Portland Road</u>		Copy To: <u>Roger Faughn</u>		Company Name: <u>Vistra Corp</u>		REGULATORY AGENCY	
Email To: <u>Brian.Voelker@VistraCorp.com</u>		<u>roger.faughn@vistracorp.com</u>		Address: <u>see Section A</u>			
<u>samantha.davies@vistracorp.com</u>		Purchase Order No.:		Quote Reference:		NPDES <u>GROUND WATER</u> <u>DRINKING WATER</u>	
Phone: (217) 753-8911 Fax:		Project Name:		Project Manager:		UST <u>RCRA</u> <u>OTHER</u>	
Requested Due Date/TAT: <u>10 day</u>		Project Number: <u>2285</u>		Profile #:		Site Location <u>IL</u>	
						STATE:	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.	
							Preservatives												
							Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ O ₃	Methanol	Other	Analysis Test ↓	JOP-257-401			JOP-257-402
1	G23S					6	2	2	2										23091473-033
2	G24S		9-29-23	8 34		6	2	2	2										034
3	G51D					6	2	2	2										035
4	G52D					6	2	2	2										036
5	G53D					6	2	2	2										037
6	G54D					6	2	2	2										038
7	SG02					0													039
8	Well 2					6	2	2	2										040
9	Well 3					6	2	2	2										041
10	XPW01					6	2	2	2										042
11	XPW02					6	2	2	2										043
12	XPW03					6	2	2	2										044
13	XSG01					0													045
14	Field Blank		9-29-23	11 16		6	2	2	2										046
15	G52D Duplicate					6	2	2	2										047
16	G12S Duplicate		9-28-23	0919		6	2	2	2										048

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
JOP-23Q3 Rev 2	<u>Brett Gillman</u>	9-28-23	15:05	<u>Brett Gillman</u>	9-28-23	15:05	
				<u>Morgan Perin</u>	9/28/23	15:05	

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: <u>Brett Gillman</u>					
SIGNATURE of SAMPLER: <u>Brett Gillman</u>					
DATE Signed (MM/DD/YY): <u>9-28-23</u>					

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q																		
LIMS Workorder	23091473																		
Technician	JR, BG, JC, TC																		
WO Sample	Well ID	Date	Time	Time (adj)	DTB (ft)	DTW (ft)	MP Elev (ft)	GW Elev (ft)	Well Condition	Sampling Device	Samling Method	Field Filtered	Appearance	Odor	Color	Turbidity (visible)	Ferrous Iron	Comments	
001A	G01D	09/25/2023	1307	1307		44.16			Good	Bladder Pump	Low Flow	Yes	Clear	None	None		0.049		
002A	G02D	09/25/2023	1406	1406		44.46			Good	Bladder Pump	Low Flow	Yes	Clear	None	None		0.021		
003A	G03	09/26/2023	1235	1235		39.49			Good	Bladder Pump	Low Flow	Yes	Cloudy	None	None		0.032		
004A	G05	09/27/2023	1014	1014		44.47			Good	Bladder Pump	Low Flow	Yes	Clear	Slight	None		0.389		
005A	G06	09/27/2023	1116	1116		41.49			Good	Bladder Pump	Low Flow	Yes	Clear	Slight	None		0.034		
006A	G07	09/27/2023	1157	1157		41.58			Good	Bladder Pump	Low Flow	Yes	Clear	None	None		0.119		
007A	G08	09/26/2023	1432	1432		32.69			Good	Bladder Pump	Low Flow	Yes	Cloudy	Slight	Lt. Brown		1.009		
008A	G09	09/26/2023	1410	1410		41.48			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	4.126		
009A	G10	09/26/2023	1331	1331		41.8			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	5.633		
010A	G101-LF	09/27/2023	1103	1103		43.38			Good	Bladder Pump	Low Flow	No	Cloudy	None	Rust	Heavy			
011A	G102	09/27/2023	1014	1014		59			Good	Bladder Pump	Low Flow	No	Cloudy	None	None	Slight			
012A	G105	09/27/2023	903	0903		56.18			Good	Bladder Pump	Low Flow	No	Clear	None	None	None			
013A	G107	09/28/2023	1523	1523		55.51			Needs Work	Submersible Pump	Low Flow	No						pump in well does not work	
014A	G109	09/26/2023	1528	1528		52.55			Good	Bladder Pump	Low Flow	No	Clear	None	None	None			
015A	G11	09/26/2023	1147	1147		48.69			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	3.244		
016A	G111-LF	09/26/2023	1457	1457		50.61			Good	Bladder Pump	Low Flow	No	Clear	None	None	None			
017A	G12D	09/28/2023	949	0949		48.11			Good	Bladder Pump	Low Flow	Yes	Clear	None	None		0.446		
018A	G12S	09/28/2023	919	0919		48.17			Good	Bladder Pump	Low Flow	Yes	Clear	None	None		2.765		
019A	G13D	09/27/2023	1337	1337		42.88			Good	Bladder Pump	Low Flow	Yes	Clear	None	None		0.055		
020A	G13S	09/27/2023	1314	1314		42.9			Good	Bladder Pump	Low Flow	Yes	Clear	None	None		0.022		
021A	G151	09/28/2023	1545	1545		39.33			Good	Bailer	Low Flow								
022A	G153	09/27/2023	904	0904		37.81			Good	Bladder Pump	Low Flow	Yes	Clear	Slight	None		0.045	ODO takes awhile to drop and was still high after resetting cell	
023A	G16S	09/27/2023	1342	1342		45.58			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None			
024A	G18S	09/27/2023	1149	1149		38.88			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	4.1		
025A	G19D	09/28/2023	916	0916		46.65			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	1.726		
026A	G19S	09/28/2023	947	0947		46.78			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	2.884		
027A	G20D	09/27/2023	1423	1423		45.08			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	2.695		
028A	G20S	09/27/2023	1442	1442		44.49			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	2.67		
029A	G21D	09/27/2023	1449	1449		46.27			Good	Bladder Pump	Low Flow	Yes	Clear	Slight	None		0.983		
030A	G21S	09/27/2023	1426	1426		46.81			Good	Bladder Pump	Low Flow	Yes	Clear	None	None		0.071		
031A	G22D	09/28/2023	1028	1028		46.99			Good	Bladder Pump	Low Flow	Yes	Clear	Slight	None		0.886		
032A	G22S	09/28/2023	1022	1022		46.84			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	3.713		
033A	G23S	09/27/2023	1232	1232		46.06			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	3.613		
034A	G24S	09/28/2023	834	0834		48.6			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	3.54		
035A	G51D	09/25/2023	1536	1536		45.38			Good	Bladder Pump	Low Flow	Yes	Clear	None	None		0.067		
036A	G52D	09/26/2023	1235	1235		28.81			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	Slight	3.767		
037A	G53D	09/27/2023	931	0931		39.36			Good	Bladder Pump	Low Flow	Yes	Clear	Slight	None		0.102		
038A	G54D	09/26/2023	1235	1235		43.85			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	Slight	3.767		
039A	SG02	09/25/2023																Broken	
040A	well2	09/26/2023	908	0908		47.09			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	2.377		
041A	well3	09/26/2023	958	0958		33.75			Good	Bladder Pump	Low Flow	Yes	Clear	None	None	None	3.221		
042A	XPW01	09/26/2023	926	0926		16.84			Good	Bladder Pump	Low Flow	Yes	Clear	Moderate	None		0.938		
043A	XPW02	09/26/2023	1011	1011		6.56			Good	Bladder Pump	Low Flow	Yes	Clear	Slight	None		3.702		
044A	XPW03	09/26/2023	1051	1051		14.02			Good	Bladder Pump	Low Flow	Yes	Clear	Slight	None		0.015		
045A	XSG01	09/25/2023																Insufficient water	
046A	FB	09/28/2023	1116	1116															
047A	G52DDUP	09/26/2023	1030	1030		28.81													
048A	G12SDUP	09/28/2023	919	0919		48.17													

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q																
LIMS Workorder	23091473																
Technician	JR, BG, JC, TC																
Well ID	Date	Time	Time (adj)	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)	DTB (ft)	DTW (ft)	MP Elev (ft)	GW Elev (ft)	LIMS ID
G01D	9/25/2023	13:07	1307	18.1	64.58	6.53	532.6	532.6	0.65	9.91	29.9			44.16			23091473-001A
G02D	9/25/2023	14:06	1406	16.1	60.98	6.4	411.5	411.5	1.51	11.7	68.5			44.46			23091473-002A
G03	9/26/2023	12:35	1235	17.8	64.04	6.43	445.4	445.4	3.89	34.57	40.2			39.49			23091473-003A
G05	9/27/2023	10:14	1014	17.4	63.32	6.42	565.1	565.1	0.94	19.94	-16.8			44.47			23091473-004A
G06	9/27/2023	11:16	1116	16.2	61.16	6.56	716.2	716.2	0.88	42.64	13.9			41.49			23091473-005A
G07	9/27/2023	11:57	1157	16	60.8	6.43	847.3	847.3	0.72	13.16	31.2			41.58			23091473-006A
G08	9/26/2023	14:32	1432	17.3	63.14	7.01	912.1	912.1	0.65	39.85	-91.5			32.69			23091473-007A
G09	9/26/2023	14:10	1410	17.7	63.86	6.24	789.4	789.4	0.81	16.72	33.4			41.48			23091473-008A
G10	9/26/2023	13:31	1331	17.5	63.5	6.65	1247.9	1247.9	0.47	16.33	64.8			41.8			23091473-009A
G101-LF	9/27/2023	11:03	1103	15.6	60.08	6.45	341	341	5.81	483.78	87.6			43.38			23091473-010A
G102	9/27/2023	10:14	1014	16.8	62.24	6.32	334.6	334.6	6.59	46.35	82.7			59			23091473-011A
G105	9/27/2023	9:03	0903	17.8	64.04	6.17	507.5	507.5	7.06	7.99	53.6			56.18			23091473-012A
G107	9/28/2023	15:23	1523	18.4	65.12	6.4	907.8	907.8	4.43	185.29	143.9			55.51			23091473-013A
G109	9/26/2023	15:28	1528	18.3	64.94	6.4	313.7	313.7	5.94	8.67	76.8			52.55			23091473-014A
G11	9/26/2023	11:47	1147	17.8	64.04	5.97	748.2	748.2	0.76	8.86	98.5			48.69			23091473-015A
G111-LF	9/26/2023	14:57	1457	18.1	64.58	6.56	394	394	4.39	18.14	58			50.61			23091473-016A
G12D	9/28/2023	9:49	0949	15.5	59.9	6.55	720.5	720.5	0.68	8.46	111.6			48.11			23091473-017A
G12S	9/28/2023	9:19	0919	15.3	59.54	6.61	715.7	715.7	0.99	7.41	108.4			48.17			23091473-018A
G13D	9/27/2023	13:37	1337	17.2	62.96	6.65	637.9	637.9	1.07	9.86	10.4			42.88			23091473-019A
G13S	9/27/2023	13:14	1314	15.6	60.08	6.71	636.5	636.5	0.77	8.07	6.7			42.9			23091473-020A
G151	9/28/2023	15:45	1545	18.2	64.76	5.83	423.3	423.3	7.4	129.84	173			39.33			23091473-021A
G153	9/27/2023	9:04	0904	16.7	62.06	6.77	502	502	7.18	13.55	36.6			37.81			23091473-022A
G16S	9/27/2023	13:42	1342	14.9	58.82	6.74	1034.8	1034.8	0.63	4.32	113.4			45.58			23091473-023A
G18S	9/27/2023	11:49	1149	16.8	62.24	6.58	525	525	2.83	4.63	80.1			38.88			23091473-024A
G19D	9/28/2023	9:22	0922	15.5	59.9	6.38	535.4	535.4	2.27	5.25	125.3			46.65			23091473-025A
G19S	9/28/2023	9:44	0944	15.4	59.72	6.37	683.1	683.1	3.27	1.22	127			46.78			23091473-026A
G20D	9/27/2023	14:23	1423	15.4	59.72	6.88	650.4	650.4	0.65	2.29	88.2			45.08			23091473-027A
G20S	9/27/2023	14:42	1442	15.5	59.9	6.64	645.5	645.5	4.11	1.93	98.9			44.49			23091473-028A
G21D	9/27/2023	14:49	1449	15.4	59.72	6.84	741.9	741.9	0.93	14.03	-52.3			46.27			23091473-029A
G21S	9/27/2023	14:26	1426	15	59	6.61	866	866	1.72	9.42	34.9			46.81			23091473-030A
G22D	9/28/2023	10:28	1028	16.6	61.88	6.53	489.7	489.7	0.76	15.7	21.7			46.99			23091473-031A
G22S	9/28/2023	10:22	1022	15.7	60.26	6.49	547.8	547.8	2.82	3.34	111.6			46.84			23091473-032A
G23S	9/27/2023	12:57	1257	15.7	60.26	6.6	452	452	4.04	9.3	92.4			46.06			23091473-033A
G24S	9/28/2023	8:40	0840	16.2	61.16	6.29	491	491	3.93	7.09	143.5			48.6			23091473-034A
G51D	9/25/2023	15:36	1536	18.4	65.12	5.45	426.1	426.1	1.75	17.36	139.2			45.38			23091473-035A
G52D	9/26/2023	10:30	1030	15.9	60.62	6.34	462.3	462.3	0.56	3.37	54.9			28.81			23091473-036A
G53D	9/27/2023	9:31	0931	17	62.6	6.46	489.1	489.1	0.6	10.39	-23.3			39.36			23091473-037A
G54D	9/26/2023	12:35	1235	17.2	62.96	6.64	845.7	845.7	3.04	7.85	38.5			43.85			23091473-038A
																	23091473-039A
well2	9/26/2023	9:08	0908	19.3	66.74	6.14	859.5	859.5	3.47	9.78	131.1			47.09			23091473-040A
well3	9/26/2023	9:58	0958	15.7	60.26	6.53	1066	1066	7.28	21.95	121.6			33.75			23091473-041A
XPW01	9/26/2023	9:26	0926	18.1	64.58	8.18	937.1	937.1	0.64	7.64	-151.8			16.84			23091473-042A
XPW02	9/26/2023	10:11	1011	17.7	63.86	7.63	4751.8	4751.8	0.51	9.86	-165.8			6.56			23091473-043A
XPW03	9/26/2023	10:51	1051	18.5	65.3	10.82	663.1	663.1	0.68	7.96	-126			14.02			23091473-044A
																	23091473-045A
FB	09/28/2023	11:16	1116														23091473-046A
G52DUP	09/26/2023	10:30	1030											28.81			23091473-047A
G12SDUP	09/28/2023	9:19	0919											48.17			23091473-048A

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-001A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G01D	9/25/2023	12:55	1255	44.16		18.2	64.76	6.69	539.9	539.9	1.04	10.97	29.2	
G01D	9/25/2023	12:58	1258	44.16		18.2	64.76	6.6	536.9	536.9	0.66	10.72	29.2	
G01D	9/25/2023	13:01	1301	44.16		18.1	64.58	6.56	534.6	534.6	0.62	11.64	29.4	
G01D	9/25/2023	13:04	1304	44.16		18.1	64.58	6.54	533.7	533.7	0.65	9.67	29.5	
G01D	9/25/2023	13:07	1307	44.16		18.1	64.58	6.53	532.6	532.6	0.65	9.91	29.9	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-002A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G02D	9/25/2023	14:00	1400	44.46		15.9	60.62	6.46	411.3	411.3	0.72	12.8	68.4	
G02D	9/25/2023	14:03	1403	44.46		16	60.8	6.42	411.1	411.1	1.08	12.84	68	
G02D	9/25/2023	14:06	1406	44.46		16.1	60.98	6.4	411.5	411.5	1.51	11.7	68.5	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q														
LIMS Workorder	23091473-003A														
Technician	JR, BG, JC, TC														
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)	
G03	9/26/2023	11:41	1141	39.49		17.4	63.32	6.88	648.1	648.1	2.2	13.5	8.7		
G03	9/26/2023	11:44	1144	39.49		17.4	63.32	6.77	652.8	652.8	2.18	17.55	11.6		
G03	9/26/2023	11:47	1147	39.49		17.4	63.32	6.7	642.2	642.2	2.23	33.58	14.1		
G03	9/26/2023	11:50	1150	39.49		17.4	63.32	6.65	617.2	617.2	2.41	72.24	16.3		
G03	9/26/2023	11:53	1153	39.49		17.5	63.5	6.62	574.5	574.5	2.78	104.37	18.5		
G03	9/26/2023	11:56	1156	39.49		17.5	63.5	6.61	535.1	535.1	3.07	124.58	20.8		
G03	9/26/2023	11:59	1159	39.49		17.5	63.5	6.58	517.3	517.3	3.21	123.88	23.2		
G03	9/26/2023	12:02	1202	39.49		17.5	63.5	6.56	504.1	504.1	3.33	112.58	25.7		
G03	9/26/2023	12:05	1205	39.49		17.6	63.68	6.54	493.2	493.2	3.44	102.58	27.6		
G03	9/26/2023	12:08	1208	39.49		17.6	63.68	6.53	485.1	485.1	3.5	86.79	29.5		
G03	9/26/2023	12:11	1211	39.49		17.6	63.68	6.51	476.7	476.7	3.55	77.24	31		
G03	9/26/2023	12:14	1214	39.49		17.6	63.68	6.5	471.3	471.3	3.64	66.19	32.6		
G03	9/26/2023	12:17	1217	39.49		17.7	63.86	6.49	466.6	466.6	3.67	59.23	34		
G03	9/26/2023	12:20	1220	39.49		17.7	63.86	6.48	462.4	462.4	3.7	53.68	35.3		
G03	9/26/2023	12:23	1223	39.49		17.7	63.86	6.46	458.9	458.9	3.72	48.42	36.5		
G03	9/26/2023	12:26	1226	39.49		17.7	63.86	6.46	453.3	453.3	3.75	43.64	37.5		
G03	9/26/2023	12:29	1229	39.49		17.7	63.86	6.45	450.9	450.9	3.77	40.73	38.5		
G03	9/26/2023	12:32	1232	39.49		17.6	63.68	6.44	449.4	449.4	3.8	37.93	39.4		
G03	9/26/2023	12:35	1235	39.49		17.8	64.04	6.43	445.4	445.4	3.89	34.57	40.2		

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-004A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G05	9/27/2023	10:05	1005	44.47		17	62.6	6.47	577.9	577.9	0.95	24.92	-8.2	
G05	9/27/2023	10:08	1008	44.47		17	62.6	6.45	575.5	575.5	0.84	18.49	-11.4	
G05	9/27/2023	10:11	1011	44.47		17.4	63.32	6.43	571.1	571.1	0.87	17.7	-14.2	
G05	9/27/2023	10:14	1014	44.47		17.4	63.32	6.42	565.1	565.1	0.94	19.94	-16.8	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-005A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G06	9/27/2023	11:01	1101	41.49		16.3	61.34	6.6	725.1	725.1	1.2	66.11	20.6	
G06	9/27/2023	11:04	1104	41.49		16.3	61.34	6.59	720.1	720.1	1.07	61.5	18.8	
G06	9/27/2023	11:07	1107	41.49		16.3	61.34	6.57	717.5	717.5	1	52.48	17.3	
G06	9/27/2023	11:10	1110	41.49		16.3	61.34	6.57	716.5	716.5	0.95	49.37	16	
G06	9/27/2023	11:13	1113	41.49		16.3	61.34	6.56	716.2	716.2	0.91	50.61	14.9	
G06	9/27/2023	11:16	1116	41.49		16.2	61.16	6.56	716.2	716.2	0.88	42.64	13.9	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-006A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G07	9/27/2023	11:51	1151	41.58		16	60.8	6.53	845.5	845.5	0.81	14.62	35.9	
G07	9/27/2023	11:54	1154	41.58		16	60.8	6.46	837.5	837.5	0.77	13.16	33.4	
G07	9/27/2023	11:57	1157	41.58		16	60.8	6.43	847.3	847.3	0.72	13.16	31.2	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-007A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G08	9/26/2023	14:14	1414	32.69		17.4	63.32	7.01	912.7	912.7	0.68	55.04	-87.9	
G08	9/26/2023	14:17	1417	32.69		17.3	63.14	7.01	912.5	912.5	0.67	49.32	-88.7	
G08	9/26/2023	14:20	1420	32.69		17.3	63.14	7.01	913.5	913.5	0.67	46.99	-89.4	
G08	9/26/2023	14:23	1423	32.69		17.3	63.14	7.01	912.1	912.1	0.67	44.87	-89.9	
G08	9/26/2023	14:26	1426	32.69		17.3	63.14	7.01	912.2	912.2	0.65	40.79	-90.6	
G08	9/26/2023	14:29	1429	32.69		17.3	63.14	7.01	912.4	912.4	0.66	39.28	-91.1	
G08	9/26/2023	14:32	1432	32.69		17.3	63.14	7.01	912.1	912.1	0.65	39.85	-91.5	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-008A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G09	9/26/2023	14:01	1401	41.48		17.8	64.04	6.27	784.8	784.8	0.9	13.74	30.6	
G09	9/26/2023	14:04	1404	41.48		17.8	64.04	6.25	785.8	785.8	0.9	14.93	31.9	
G09	9/26/2023	14:07	1407	41.48		17.8	64.04	6.24	786.6	786.6	0.86	16.53	33.1	
G09	9/26/2023	14:10	1410	41.48		17.7	63.86	6.24	789.4	789.4	0.81	16.72	33.4	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-009A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G10	9/26/2023	13:19	1319	41.8		17.6	63.68	6.66	1277.2	1277.2	0.6	20.74	73.9	
G10	9/26/2023	13:22	1322	41.8		17.6	63.68	6.66	1266.3	1266.3	0.54	20.52	71.1	
G10	9/26/2023	13:25	1325	41.8		17.6	63.68	6.66	1258.6	1258.6	0.51	18.37	68.4	
G10	9/26/2023	13:28	1328	41.8		17.6	63.68	6.65	1254	1254	0.48	16.67	66.5	
G10	9/26/2023	13:31	1331	41.8		17.5	63.5	6.65	1247.9	1247.9	0.47	16.33	64.8	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-010A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G101-LF	9/27/2023	10:57	1057	43.38		15.1	59.18	6.55	338.9	338.9	6.88	445.35	85	
G101-LF	9/27/2023	11:00	1100	43.38		15.6	60.08	6.47	341.1	341.1	5.94	498.76	86.4	
G101-LF	9/27/2023	11:03	1103	43.38		15.6	60.08	6.45	341	341	5.81	483.78	87.6	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q														
LIMS Workorder	23091473-011A														
Technician	JR, BG, JC, TC														
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)	
G102	9/27/2023	9:47	0947	59		15.7	60.26	6.34	342.5	342.5	6.41	25.99	72.8		
G102	9/27/2023	9:50	0950	59		15.7	60.26	6.33	337.6	337.6	6.53	32.28	73.8		
G102	9/27/2023	9:53	0953	59		15.8	60.44	6.32	334	334	6.65	35.11	75.1		
G102	9/27/2023	9:56	0956	59		15.7	60.26	6.31	329.6	329.6	6.69	36.86	76.3		
G102	9/27/2023	9:59	0959	59		15.7	60.26	6.3	328	328	6.63	52.59	78		
G102	9/27/2023	10:02	1002	59		15.8	60.44	6.3	329.5	329.5	6.6	59.21	79		
G102	9/27/2023	10:05	1005	59		15.9	60.62	6.3	330.1	330.1	6.57	58.68	80.2		
G102	9/27/2023	10:08	1008	59		16	60.8	6.3	331.7	331.7	6.59	47.69	81.3		
G102	9/27/2023	10:11	1011	59		16.4	61.52	6.31	333.6	333.6	6.6	46.31	81.9		
G102	9/27/2023	10:14	1014	59		16.8	62.24	6.32	334.6	334.6	6.59	46.35	82.7		

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-012A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G105	9/27/2023	8:57	0857	56.18		17.9	64.22	6.18	541	541	6.77	12.34	46.3	
G105	9/27/2023	9:00	0900	56.18		17.8	64.04	6.18	517.4	517.4	6.98	10	49.8	
G105	9/27/2023	9:03	0903	56.18		17.8	64.04	6.17	507.5	507.5	7.06	7.99	53.6	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-013A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G107	9/28/2023	15:08	1508	55.51		20.4	68.72	6.01	961.8	961.8	2.54	35.07	115.9	
G107	9/28/2023	15:11	1511	55.51		18.2	64.76	6.26	903.1	903.1	3.57	228.96	124	
G107	9/28/2023	15:14	1514	55.51		18.9	66.02	6.28	902.1	902.1	3.42	204.28	130.4	
G107	9/28/2023	15:17	1517	55.51		19.3	66.74	6.31	903.1	903.1	3.38	196.2	135.2	
G107	9/28/2023	15:20	1520	55.51		19.7	67.46	6.34	905.5	905.5	3.35	192.45	138.7	
G107	9/28/2023	15:23	1523	55.51		18.4	65.12	6.4	907.8	907.8	4.43	185.29	143.9	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-014A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G109	9/26/2023	15:09	1509	52.55		20.6	69.08	6.84	330.1	330.1	8.39	8.54	53.7	
G109	9/26/2023	15:12	1512	52.55		21.5	70.7	6.78	332.2	332.2	8.28	6.55	57.1	
G109	9/26/2023	15:15	1515	52.55		22.3	72.14	6.77	333.2	333.2	8.17	5.34	59.9	
G109	9/26/2023	15:22	1522	52.55		18.2	64.76	6.44	317.5	317.5	6.37	11	72.8	
G109	9/26/2023	15:25	1525	52.55		18.1	64.58	6.41	314.7	314.7	6.14	8.26	75.2	
G109	9/26/2023	15:28	1528	52.55		18.3	64.94	6.4	313.7	313.7	5.94	8.67	76.8	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-015A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G11	9/26/2023	11:20	1120	48.69		17.7	63.86	5.99	855.3	855.3	1.42	6.34	91.4	
G11	9/26/2023	11:23	1123	48.69		17.7	63.86	5.97	835.5	835.5	1.17	11.48	92.4	
G11	9/26/2023	11:26	1126	48.69		17.6	63.68	5.97	816.8	816.8	1.04	17.99	93.3	
G11	9/26/2023	11:29	1129	48.69		17.8	64.04	5.97	805.5	805.5	0.96	24.84	94.2	
G11	9/26/2023	11:32	1132	48.69		17.6	63.68	5.97	792.6	792.6	0.9	31.49	95	
G11	9/26/2023	11:35	1135	48.69		17.7	63.86	5.96	785.7	785.7	0.86	41.49	95.7	
G11	9/26/2023	11:38	1138	48.69		17.6	63.68	5.97	776	776	0.84	45.5	96.5	
G11	9/26/2023	11:41	1141	48.69		17.7	63.86	5.97	768	768	0.81	56.29	97.2	
G11	9/26/2023	11:44	1144	48.69		17.8	64.04	5.95	757.9	757.9	0.78	5.05	99	
G11	9/26/2023	11:47	1147	48.69		17.8	64.04	5.97	748.2	748.2	0.76	8.86	98.5	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-016A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G111-LF	9/26/2023	14:45	1445	50.61		18.5	65.3	6.68	397.1	397.1	4.57	16.64	47.6	
G111-LF	9/26/2023	14:48	1448	50.61		18.1	64.58	6.62	395.4	395.4	4.36	17.03	51.3	
G111-LF	9/26/2023	14:51	1451	50.61		18	64.4	6.57	395	395	4.31	22.9	54.8	
G111-LF	9/26/2023	14:54	1454	50.61		18.1	64.58	6.57	394.6	394.6	4.39	18.58	56.3	
G111-LF	9/26/2023	14:57	1457	50.61		18.1	64.58	6.56	394	394	4.39	18.14	58	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-017A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G12D	9/28/2023	9:37	0937	48.11		15.5	59.9	6.65	721.3	721.3	1.12	9.41	128.7	
G12D	9/28/2023	9:40	0940	48.11		15.5	59.9	6.61	720.9	720.9	0.83	9.12	123.9	
G12D	9/28/2023	9:43	0943	48.11		15.5	59.9	6.58	720.6	720.6	0.74	9.15	119.4	
G12D	9/28/2023	9:46	0946	48.11		15.5	59.9	6.57	720.4	720.4	0.7	9.1	115.3	
G12D	9/28/2023	9:49	0949	48.11		15.5	59.9	6.55	720.5	720.5	0.68	8.46	111.6	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-018A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G12S	9/28/2023	9:01	0901	48.17		15.4	59.72	7.38	719.6	719.6	1.14	7.67	105.8	
G12S	9/28/2023	9:04	0904	48.17		15.3	59.54	7.05	717.9	717.9	1	7.59	109.9	
G12S	9/28/2023	9:07	0907	48.17		15.3	59.54	6.88	716.4	716.4	1.02	7.53	111.1	
G12S	9/28/2023	9:10	0910	48.17		15.3	59.54	6.77	716	716	1	7.49	111.5	
G12S	9/28/2023	9:13	0913	48.17		15.3	59.54	6.7	715.8	715.8	0.99	7.43	110.9	
G12S	9/28/2023	9:16	0916	48.17		15.3	59.54	6.65	715.7	715.7	0.99	7.44	109.8	
G12S	9/28/2023	9:19	0919	48.17		15.3	59.54	6.61	715.7	715.7	0.99	7.41	108.4	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-019A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G13D	9/27/2023	13:31	1331	42.88		17.3	63.14	6.71	638.5	638.5	1.67	10.08	6.3	
G13D	9/27/2023	13:34	1334	42.88		17.2	62.96	6.68	638.1	638.1	1.37	9.94	8.7	
G13D	9/27/2023	13:37	1337	42.88		17.2	62.96	6.65	637.9	637.9	1.07	9.86	10.4	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-020A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G13S	9/27/2023	13:08	1308	42.9		15.6	60.08	6.85	636.3	636.3	0.89	9.18	2.1	
G13S	9/27/2023	13:11	1311	42.9		15.5	59.9	6.76	636.8	636.8	0.82	8.16	5.2	
G13S	9/27/2023	13:14	1314	42.9		15.6	60.08	6.71	636.5	636.5	0.77	8.07	6.7	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-021A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G151	9/28/2023	15:39	1539	39.33		18.4	65.12	6.69	449.7	449.7	7.06	66.16	148.8	
G151	9/28/2023	15:42	1542	39.33		18.8	65.84	6.04	459.3	459.3	6.98	43.31	165.9	
G151	9/28/2023	15:45	1545	39.33		18.2	64.76	5.83	423.3	423.3	7.4	129.84	173	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-022A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G153	9/27/2023	8:58	0858	37.81		16.6	61.88	6.82	498.2	498.2	7.81	12.09	35.2	
G153	9/27/2023	9:01	0901	37.81		16.6	61.88	6.8	499.8	499.8	7.62	12.36	35.6	
G153	9/27/2023	9:04	0904	37.81		16.7	62.06	6.77	502	502	7.18	13.55	36.6	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-023A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G16S	9/27/2023	13:36	1336	45.58		15	59	6.76	1032	1032	1.09	5.72	109.8	
G16S	9/27/2023	13:39	1339	45.58		15	59	6.75	1033.2	1033.2	0.77	4.48	111.9	
G16S	9/27/2023	13:42	1342	45.58		14.9	58.82	6.74	1034.8	1034.8	0.63	4.32	113.4	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-024A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G18S	9/27/2023	11:43	1143	38.88		16.8	62.24	6.57	525.3	525.3	3	9.72	78.5	
G18S	9/27/2023	11:46	1146	38.88		16.8	62.24	6.57	524.9	524.9	2.93	5.81	79.8	
G18S	9/27/2023	11:49	1149	38.88		16.8	62.24	6.58	525	525	2.83	4.63	80.1	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-025A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G19D	9/28/2023	9:16	0916	46.65		15.5	59.9	6.38	536.5	536.5	2.31	9.4	124.8	
G19D	9/28/2023	9:19	0919	46.65		15.5	59.9	6.38	536	536	2.28	6.7	125.1	
G19D	9/28/2023	9:22	0922	46.65		15.5	59.9	6.38	535.4	535.4	2.27	5.25	125.3	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-026A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G19S	9/28/2023	9:38	0938	46.78		15.6	60.08	6.45	681.7	681.7	3.57	3.13	126.8	
G19S	9/28/2023	9:41	0941	46.78		15.5	59.9	6.39	683.5	683.5	3.34	2.02	126.8	
G19S	9/28/2023	9:44	0944	46.78		15.4	59.72	6.37	683.1	683.1	3.27	1.22	127	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-027A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G20D	9/27/2023	14:17	1417	45.08		15.4	59.72	6.95	651.1	651.1	1.37	2.58	87.1	
G20D	9/27/2023	14:20	1420	45.08		15.4	59.72	6.9	650.5	650.5	0.9	2.79	87.8	
G20D	9/27/2023	14:23	1423	45.08		15.4	59.72	6.88	650.4	650.4	0.65	2.29	88.2	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-028A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G20S	9/27/2023	14:36	1436	44.49		15.6	60.08	6.72	645.3	645.3	4.74	2.41	97.6	
G20S	9/27/2023	14:39	1439	44.49		15.5	59.9	6.66	645.4	645.4	4.27	2.12	98.3	
G20S	9/27/2023	14:42	1442	44.49		15.5	59.9	6.64	645.5	645.5	4.11	1.93	98.9	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-029A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G21D	9/27/2023	14:43	1443	46.27		15.4	59.72	6.89	742.5	742.5	1.34	16.36	-24	
G21D	9/27/2023	14:49	1449	46.27		15.4	59.72	6.84	741.9	741.9	0.93	14.03	-52.3	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-030A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G21S	9/27/2023	14:17	1417	46.81		15.1	59.18	6.75	856.9	856.9	2.03	10.73	40.9	
G21S	9/27/2023	14:20	1420	46.81		15	59	6.68	858.2	858.2	1.92	9.54	38.7	
G21S	9/27/2023	14:23	1423	46.81		15	59	6.64	861.7	861.7	1.81	9.2	36.7	
G21S	9/27/2023	14:26	1426	46.81		15	59	6.61	866	866	1.72	9.42	34.9	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-031A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G22D	9/28/2023	10:19	1019	46.99		16.7	62.06	6.72	483.1	483.1	0.85	16.36	71.7	
G22D	9/28/2023	10:22	1022	46.99		16.6	61.88	6.6	488.8	488.8	0.79	17.71	46.8	
G22D	9/28/2023	10:25	1025	46.99		16.6	61.88	6.55	489.2	489.2	0.77	16.89	30.4	
G22D	9/28/2023	10:28	1028	46.99		16.6	61.88	6.53	489.7	489.7	0.76	15.7	21.7	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-032A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G22S	9/28/2023	10:16	1016	46.84		15.8	60.44	6.61	548.2	548.2	3.39	4.45	108.1	
G22S	9/28/2023	10:19	1019	46.84		15.7	60.26	6.52	547.5	547.5	2.92	4.09	110.2	
G22S	9/28/2023	10:22	1022	46.84		15.7	60.26	6.49	547.8	547.8	2.82	3.34	111.6	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-033A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G23S	9/27/2023	12:33	1233	46.06		16	60.8	6.64	452.8	452.8	4.09	19.6	87.6	
G23S	9/27/2023	12:36	1236	46.06		15.9	60.62	6.62	452.7	452.7	4.04	19.26	88.8	
G23S	9/27/2023	12:39	1239	46.06		15.9	60.62	6.62	452.4	452.4	4.02	18.09	89.4	
G23S	9/27/2023	12:42	1242	46.06		15.9	60.62	6.61	452.3	452.3	4.01	16.41	90	
G23S	9/27/2023	12:45	1245	46.06		15.8	60.44	6.61	452.4	452.4	4.01	14.29	90.8	
G23S	9/27/2023	12:48	1248	46.06		15.8	60.44	6.61	452.2	452.2	4.01	12.89	91.1	
G23S	9/27/2023	12:51	1251	46.06		15.8	60.44	6.6	452.1	452.1	4.02	11.19	91.5	
G23S	9/27/2023	12:54	1254	46.06		15.7	60.26	6.6	452.1	452.1	4.03	10.38	92	
G23S	9/27/2023	12:57	1257	46.06		15.7	60.26	6.6	452	452	4.04	9.3	92.4	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-034A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (μS/cm)	Sp Cond (μmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G24S	9/28/2023	8:34	0834	48.6		16.1	60.98	6.3	491.6	491.6	4	9.62	145.7	
G24S	9/28/2023	8:37	0837	48.6		16.2	61.16	6.3	491.3	491.3	3.96	7.65	144.4	
G24S	9/28/2023	8:40	0840	48.6		16.2	61.16	6.29	491	491	3.93	7.09	143.5	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-035A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G51D	9/25/2023	15:27	1527	45.38		18.9	66.02	5.51	428.1	428.1	1.99	26.68	132	
G51D	9/25/2023	15:30	1530	45.38		18.6	65.48	5.48	426.6	426.6	1.8	21.22	135	
G51D	9/25/2023	15:33	1533	45.38		18.4	65.12	5.47	426.6	426.6	1.82	19.43	137.3	
G51D	9/25/2023	15:36	1536	45.38		18.4	65.12	5.45	426.1	426.1	1.75	17.36	139.2	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-036A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G52D	9/26/2023	10:24	1024	28.81		15.8	60.44	6.43	463.4	463.4	0.95	3.66	73.8	
G52D	9/26/2023	10:27	1027	28.81		15.9	60.62	6.36	462.2	462.2	0.66	3.15	62.5	
G52D	9/26/2023	10:30	1030	28.81		15.9	60.62	6.34	462.3	462.3	0.56	3.37	54.9	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-037A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G53D	9/27/2023	9:25	0925	39.36		17.1	62.78	6.56	488.4	488.4	0.78	14.07	-16.7	
G53D	9/27/2023	9:28	0928	39.36		17	62.6	6.49	489.3	489.3	0.65	13.46	-20.6	
G53D	9/27/2023	9:31	0931	39.36		17	62.6	6.46	489.1	489.1	0.6	10.39	-23.3	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-038A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G54D	9/26/2023	12:29	1229	43.85		17.2	62.96	6.63	733.3	733.3	3.01	13.53	40.2	
G54D	9/26/2023	12:32	1232	43.85		17.2	62.96	6.63	842.3	842.3	3.05	9.48	39.8	
G54D	9/26/2023	12:35	1235	43.85		17.2	62.96	6.64	845.7	845.7	3.04	7.85	38.5	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q
LIMS Workorder	23091473-039A
Technician	JR, BG, JC, TC

Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (μS/cm)	Sp Cond (μmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
---------	------	------	------------	-----	----------	--------------	--------------	---------	-----------------	-------------------------	------------	-----------------	----------	--------------------

SG02

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-040A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
well2	9/26/2023	8:44	0844	47.09		19.8	67.64	6.16	844.5	844.5	4.25	22.58	136.1	
well2	9/26/2023	8:47	0847	47.09		19.4	66.92	6.14	860.5	860.5	3.8	23.31	135.8	
well2	9/26/2023	8:50	0850	47.09		19.3	66.74	6.13	849.1	849.1	3.73	19.52	134.9	
well2	9/26/2023	8:53	0853	47.09		19.3	66.74	6.12	851.5	851.5	3.66	17.96	134.4	
well2	9/26/2023	8:56	0856	47.09		19.3	66.74	6.12	854.8	854.8	3.59	14.47	133.7	
well2	9/26/2023	8:59	0859	47.09		19.3	66.74	6.12	856.8	856.8	3.55	12.44	133.1	
well2	9/26/2023	9:02	0902	47.09		19.3	66.74	6.13	857.3	857.3	3.52	11.5	132.4	
well2	9/26/2023	9:05	0905	47.09		19.3	66.74	6.13	858.8	858.8	3.49	10.5	131.8	
well2	9/26/2023	9:08	0908	47.09		19.3	66.74	6.14	859.5	859.5	3.47	9.78	131.1	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-041A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
well3	9/26/2023	9:52	0952	33.75		15.7	60.26	6.52	1066.6	1066.6	7.28	21.51	122.3	
well3	9/26/2023	9:55	0955	33.75		15.7	60.26	6.52	1066.1	1066.1	7.28	22.43	121.9	
well3	9/26/2023	9:58	0958	33.75		15.7	60.26	6.53	1066	1066	7.28	21.95	121.6	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-042A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
XPW01	9/26/2023	9:17	0917	16.84		17.5	63.5	7.79	921.6	921.6	0.7	9.92	-125.6	
XPW01	9/26/2023	9:20	0920	16.84		18	64.4	7.95	926.6	926.6	0.7	9.25	-135.5	
XPW01	9/26/2023	9:23	0923	16.84		18.1	64.58	8.1	935	935	0.66	8.37	-145.4	
XPW01	9/26/2023	9:26	0926	16.84		18.1	64.58	8.18	937.1	937.1	0.64	7.64	-151.8	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q														
LIMS Workorder	23091473-043A														
Technician	JR, BG, JC, TC														
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)	
XPW02	9/26/2023	10:02	1002	6.56		17.8	64.04	7.52	4738.6	4738.6	0.6	16.61	-101.3		
XPW02	9/26/2023	10:05	1005	6.56		17.7	63.86	7.57	4752.8	4752.8	0.54	12.36	-134.3		
XPW02	9/26/2023	10:08	1008	6.56		17.7	63.86	7.6	4753.2	4753.2	0.52	11.09	-153.4		
XPW02	9/26/2023	10:11	1011	6.56		17.7	63.86	7.63	4751.8	4751.8	0.51	9.86	-165.8		

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-044A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
XPW03	9/26/2023	10:42	1042	14.02		17.9	64.22	10.77	658.8	658.8	0.73	9.56	-117.7	
XPW03	9/26/2023	10:45	1045	14.02		18.2	64.76	10.79	660.6	660.6	0.7	9.25	-121.1	
XPW03	9/26/2023	10:48	1048	14.02		18.4	65.12	10.81	661.5	661.5	0.69	8.38	-123.9	
XPW03	9/26/2023	10:51	1051	14.02		18.5	65.3	10.82	663.1	663.1	0.68	7.96	-126	

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q
LIMS Workorder	23091473-045A
Technician	JR, BG, JC, TC

Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (μS/cm)	Sp Cond (μmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
---------	------	------	------------	-----	----------	--------------	--------------	---------	-----------------	-------------------------	------------	-----------------	----------	--------------------

XSG01

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q
LIMS Workorder	23091473-046A
Technician	JR, BG, JC, TC

Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (μS/cm)	Sp Cond (μmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
---------	------	------	------------	-----	----------	--------------	--------------	---------	-----------------	-------------------------	------------	-----------------	----------	--------------------

FB

APPENDIX A.
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL
 JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-047A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (μS/cm)	Sp Cond (μmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G52DDUP	9/26/2023	10:24	1024	28.8		15.8	60.44	6.43	463.4	463.4	0.95	3.66	73.8	
G52DDUP	9/26/2023	10:27	1027	28.8		15.9	60.62	6.36	462.2	462.2	0.66	3.15	62.5	
G52DDUP	9/26/2023	10:30	1030	28.8		15.9	60.62	6.34	462.3	462.3	0.56	3.37	54.9	

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL
JOP-257-402

Site Sampling Event	Joppa 3Q													
LIMS Workorder	23091473-048A													
Technician	JR, BG, JC, TC													
Well ID	Date	Time	Time (adj)	DTW	Drawdown	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	Purge Volume (gal)
G12SDUP	9/28/2023	9:01	0901	48.2		15.4	59.72	7.38	719.6	719.6	1.14	7.67	105.8	
G12SDUP	9/28/2023	9:04	0904	48.2		15.3	59.54	7.05	717.9	717.9	1	7.59	109.9	
G12SDUP	9/28/2023	9:07	0907	48.2		15.3	59.54	6.88	716.4	716.4	1.02	7.53	111.1	
G12SDUP	9/28/2023	9:10	0910	48.2		15.3	59.54	6.77	716	716	1	7.49	111.5	
G12SDUP	9/28/2023	9:13	0913	48.2		15.3	59.54	6.7	715.8	715.8	0.99	7.43	110.9	
G12SDUP	9/28/2023	9:16	0916	48.2		15.3	59.54	6.65	715.7	715.7	0.99	7.44	109.8	
G12SDUP	9/28/2023	9:19	0919	48.2		15.3	59.54	6.61	715.7	715.7	0.99	7.41	108.4	

Field Analysis Log GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
JOPPA POWER PLANT, LANDFILL

APPENDIX A.

Cross Reference to Sample ID	Date mm/dd/yy	Time	Temp. C	pH Results			Conductivity			Other: JOP-257-402				
				Reading 1	Reading 2	LCSD	Range Factor	Reading 1	Reading 2	DF	Read1/units	DF	Read2/unit	
LCS	9/25/23	12:31e	26.6	7.06				1413						
CCV		11:10	28.4	7.09				1428						

**** Field Meter ID for Temp, pH & Conductivity: Pine 49331

**** Field Meter ID for (): _____

Field Temp SOP 1156	SW846	Std Methods	Lot #	Lot #	Lot #
pH in the Field SOP 1152	9040B	2550 B	pH 4.0 Buffer	WP 285126G	Conductivity Std. 1412
Field Cond. SOP 1155	9050A	4500-H B	pH 7.0 Buffer	WP 230501B	Conductivity Std. _____
Other: _____		2510 B	pH 10.0 Buffer	WP 230504C	Conductivity Std. _____
			pH LCS/LCSD 7	WP 230501F	Conductivity LCS/LCSD _____

pH Calibration	4.00	Reading	4.01	Conductivity Calibration	Reading	units	_____	Calibration	Reading
Date: 9/25/23	7.00		7.00	_____	1412	µS	0-199.9	Std _____	Units _____
Time: 12:20	10.00		9.99	_____	_____	µS	0-1999	Std _____	Units _____
				_____	_____	mS	0-19.99	Std _____	Units _____

Field Analyst Sig & Date: Jeany Carroll 9/25/23
 Reviewed By & Date: _____
 Reviewed By & Date: _____

Field Analyst Sig & Date: Jeany Carroll 9/25/23
 Reviewed By & Date: _____
 Reviewed By & Date: _____

Field Analyst Sig & Date: _____
 Reviewed By & Date: _____
 Reviewed By & Date: _____

Comments:

Field Analysis Log

APPENDIX A.
 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 JOPPA POWER PLANT, LANDFILL

Cross Reference to Sample ID	Date mm/dd/yy	Time	Temp. C	pH Results			Conductivity			Other: JOP-257-402				
				Reading 1	Reading 2	LCSD	Range Factor	Reading 1	Reading 2	DF	Read1/units	DF	Read2/unit	
LCS	9/27/23	8:40	22.9	7.04				1412						
CCV	9/27/23	1453	24.1	7.02				1453						

**** Field Meter ID for Temp, pH & Conductivity: Pine 49331

**** Field Meter ID for (): _____

Field Temp SOP 1156	SW846	Std Methods	Lot #	Lot #	Lot #
pH in the Field SOP 1152	9040B	2550 B	pH 4.0 Buffer	Lot #	Lot #
Field Cond. SOP 1155	9050A	4500-H B	pH 7.0 Buffer	Lot #	Lot #
Other: _____		2510 B	pH 10.0 Buffer	Lot #	Lot #
			pH LCS/LCSD	Lot #	Lot #

pH Calibration	Reading	Conductivity Calibration	Reading	units	Calibration	Reading
Date: 9/27/23	4.00	_____ μS	_____	_____ μS	Std _____	Units _____
Time: 8:28	7.00	1412 μS	0-1999	1412 μS	Std _____	Units _____
	10.00	_____ mS	0-19.99	_____ mS	Std _____	Units _____

Field Analyst Sig & Date: Mary Carron 9/27/23
 Reviewed By & Date: _____
 Reviewed By & Date: _____

Field Analyst Sig & Date: Mary Carron 9/27/23
 Reviewed By & Date: _____
 Reviewed By & Date: _____

Field Analyst Sig & Date: _____
 Reviewed By & Date: _____
 Reviewed By & Date: _____

Comments:

Field Analysis Log

Cross Reference to Sample ID	Date mm/dd/yy	Time	Temp. C	pH Results			Conductivity			Other: _____				
				Reading 1	Reading 2	LCSD	Range Factor	Reading 1	Reading 2	DF	Read1/units	DF	Read2/units	
LCS	9-26-23	0826	20.1		7.01			1413						
CCV	9-26-23	1546	21.9		7.03			1436						

**** Field Meter ID for Temp, pH & Conductivity : PINE **** Field Meter ID for (): _____

SW846	Std Methods	Lot #	Lot #
Field Temp SOP 1156	2550 B	pH 4.0 Buffer	Conductivity Std. _____
pH in the Field SOP 1152	9040B	4500-H B	Conductivity Std. <u>1410</u>
Field Cond. SOP 1155	9050A	2510 B	Conductivity Std. <u>04955</u>
Other: _____		pH 10.0 Buffer	Conductivity Std. _____
		pH LCS/LCSD <u>7</u>	Conductivity LCS/LCSD _____

pH Calibration	Reading	Conductivity Calibration	Reading	units	Calibration	Reading
Date: <u>9-26-23</u>	<u>4.00</u>	_____ μ S	<u>1413</u>	μ S	Std _____	Units _____
Time: <u>0810</u>	<u>7.01</u>	_____ μ S	_____	μ S	Std _____	Units _____
	<u>9.99</u>	_____ mS	_____	mS	Std _____	Units _____

Field Analyst Sig & Date: <u>[Signature] Ca 9-26-23</u>	Field Analyst Sig & Date: <u>9-26-23 [Signature]</u>	Field Analyst Sig & Date: _____
Reviewed By & Date: _____	Reviewed By & Date: _____	Reviewed By & Date: _____
Reviewed By & Date: _____	Reviewed By & Date: _____	Reviewed By & Date: _____

Comments:

Field Analysis Log

Cross Reference to Sample ID	Date mm/dd/yy	Time	Temp. C	pH Results			Conductivity			Other:				
				Reading 1	Reading 2	LCSD	Range Factor	Reading 1	Reading 2	DF	Read1/units	DF	Read2/units	
LCS	9-27-23	0821	20.2		7.00			1415						
CCV	9-27-23	1456	21.3		7.03			1429						

**** Field Meter ID for Temp, pH & Conductivity : PINE

**** Field Meter ID for (): _____

Field Temp SOP 1156	SW846	Std Methods	2550 B	pH 4.0 Buffer	Lot # <u>W230720G</u>	Conductivity Std. _____	Std. _____	Lot # _____	Lot # _____
pH in the Field SOP 1152	9040B	4500-H B		pH 7.0 Buffer	<u>W230616F</u>	Conductivity Std. <u>1410</u>	Std. _____	<u>04955</u>	Std. _____
Field Cond. SOP 1155	9050A	2510 B		pH 10.0 Buffer	<u>W230504C</u>	Conductivity Std. _____	Std. _____	_____	Std. _____
Other: _____				pH LCS/LCSD <u>7</u>	<u>W230504B</u>	Conductivity LCS/LCSD _____	Std. _____	_____	LCS/LCSD _____

pH Calibration	Reading	<u>4.00</u>	Conductivity Calibration	Reading	units	Std _____	Calibration	Reading
Date: <u>9-27-23</u>		<u>7.00</u>	_____ μ S	_____	μ S	_____	Std _____	Units _____
Time: <u>0806</u>		<u>10.01</u>	_____ μ S	_____	μ S	_____	Std _____	Units _____
			_____ mS	_____	mS	_____	Std _____	Units _____

Field Analyst Sig & Date: <u>[Signature] 9-27-23</u>	Field Analyst Sig & Date: <u>[Signature] 9-27-23</u>	Field Analyst Sig & Date: _____
Reviewed By & Date: _____	Reviewed By & Date: _____	Reviewed By & Date: _____
Reviewed By & Date: _____	Reviewed By & Date: _____	Reviewed By & Date: _____

Comments:

Field Analysis Log

Cross Reference to Sample ID	Date mm/dd/yy	Time	Temp. C	pH Results			Conductivity			Other:			
				Reading 1	Reading 2	LCSD	Range Factor	Reading 1	Reading 2	DF	Read1/units	DF	Read2/units
LCS	9-28-23	8:38	24.3	7:02	7:01			1412					
CCV	9-28-23	11:40	25.6	7:02	7:02			1410					

**** Field Meter ID for Temp, pH & Conductivity : PINE

**** Field Meter ID for (04955) :

Field Temp SOP 1156	SW846	Std Methods
pH in the Field SOP 1152	9040B	2550 B
Field Cond. SOP 1155	9050A	4500-H B
Other: _____		2510 B

	Lot #	
pH 4.0 Buffer	<u>4-00 Wc230725</u>	Conductivity Std. <u>1410</u>
pH 7.0 Buffer	<u>7-01 Wc230666</u>	Conductivity Std. _____
pH 10.0 Buffer	<u>10-00 Wc230508</u>	Conductivity Std. _____
pH LCS/LCSD __7__	<u>7-00</u>	Conductivity LCS/LCSD _____

	Lot #	
	<u>04955</u>	Std. _____
		Std. _____
		Std. _____
		LCS/LCSD _____

pH Calibration

Reading	<u>4.00</u>
Date: <u>9-28-23</u>	<u>7.01</u>
Time: <u>8:06</u>	<u>10.00</u>

Field Analyst Sig & Date: Burt [Signature] - 9-28-23

Reviewed By & Date: _____

Reviewed By & Date: _____

Conductivity Calibration

_____ μ S	0-199.9	Reading _____	units μ S
_____ μ S	0-1999	_____	μ S
_____ mS	0-19.99	_____	mS

Field Analyst Sig & Date: Burt [Signature] - 9-28-23

Reviewed By & Date: _____

Reviewed By & Date: _____

_____ Calibration	Reading _____
Std _____ Units _____	_____
Std _____ Units _____	_____
Std _____ Units _____	_____

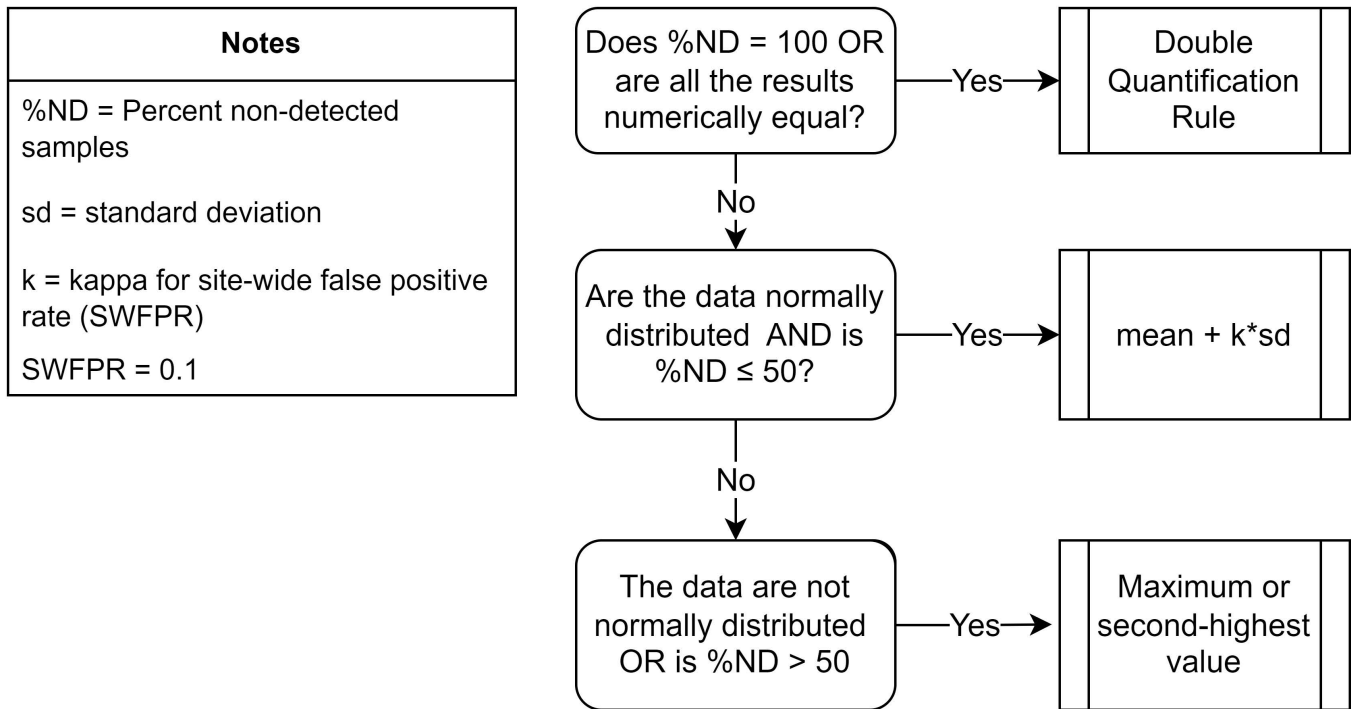
Field Analyst Sig & Date: _____

Reviewed By & Date: _____

Reviewed By & Date: _____

Comments:

**APPENDIX B
STATISTICAL METHODOLOGY FOR DETERMINATION
OF BACKGROUND VALUES**



When data are not normally distributed or %ND > 50, the maximum value is used if the background sample size is < 60. Where the background sample size is ≥ 60, the achievable per-constituent false positive rates for the maximum and second-highest background values will be compared, and the background value with the achievable per-constituent false positive rate that is closest to, but does not exceed, the target per-constituent false positive rate of 0.015% is used.