

Prepared for
Illinois Power Resources Generating, LLC

Date
January 31, 2024

Project No.
1940103649-005

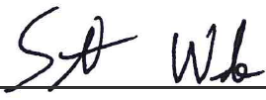
**2023 40 C.F.R. § 257 ANNUAL
GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
GYPSUM MANAGEMENT FACILITY POND
DUCK CREEK POWER PLANT
CANTON, ILLINOIS
CCR UNIT 203**

**2023 40 C.F.R. § 257 ANNUAL GROUNDWATER
MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT GYPSUM MANAGEMENT
FACILITY POND**

Project name **Duck Creek Power Plant Gypsum Management Facility Pond**
Project no. **1940103649-005**
Recipient **Illinois Power Resources Generating, LLC**
Document type **Annual Groundwater Monitoring and Corrective Action Report**
Version **FINAL**
Date **January 31, 2024**
Prepared by **Scott S. Woods**
Checked by **Lauren D. Cook**
Approved by **Eric J. Tlachac**
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>



Scott S. Woods
Hydrogeologist



Eric J. Tlachac, PE
Senior Managing Engineer

CONTENTS

EXECUTIVE SUMMARY	4
1. Introduction	5
2. Monitoring and Corrective Action Program Status	7
3. Key Actions Completed in 2023	8
4. Problems Encountered and Actions to Resolve the Problems	10
5. Key Activities Planned for 2024	11
6. References	12

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, January 9 and 16, 2023
Figure 3	Potentiometric Surface Map, May 8, 2023
Figure 4	Potentiometric Surface Map, July 17, 2023
Figure 5	Potentiometric Surface Map, October 16 and 18, 2023

APPENDICES

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

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternative Source Demonstration
CCR	coal combustion residuals
D11	Quarter 3, 2022 Detection Monitoring sampling event
D11R	Quarter 4, 2022 Detection Monitoring sampling event
D12	Quarter 1, 2023 Detection Monitoring sampling event
D12R	Quarter 2, 2023 Detection Monitoring sampling event
D13	Quarter 3, 2023 Detection Monitoring sampling event
D13R	Quarter 4, 2023 Detection Monitoring sampling event
DCPP	Duck Creek Power Plant
GMF Pond	Gypsum Management Facility Pond
GWPS	groundwater protection standard
IEPA	Illinois Environmental Protection Agency
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.) Section § 257.90(e) for the Gypsum Management Facility Pond (GMF Pond) located at the Duck Creek Power Plant (DCPP) near Canton, Illinois.

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

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

The following Statistically Significant Increases (SSIs) of 40 C.F.R. § 257 Appendix III parameter concentrations greater than background concentrations were reported in 2023:

- Calcium at wells G54S, G54L, G57S, and G60S
- Chloride at well G54L
- Sulfate at well G60L
- Total Dissolved Solids (TDS) at wells G54S, G54L, G57S, G60S, G60L, and G64L
- pH at well G60L

Alternative Source Demonstrations (ASDs) were completed in 2023 for the SSIs referenced above and the GMF Pond remains in the Detection Monitoring Program.

1. INTRODUCTION

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

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

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

- B. Provide the date when the Assessment Monitoring Program was initiated for the CCR unit.
- iv. If it was determined that there was a statistically significant level above the groundwater protection standard [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 GMF Pond 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 GMF Pond 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 included in **Table A** on the following page. The groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. Beginning in 2023, the monitoring system was updated to be consistent with that proposed for compliance with 35 I.A.C. § 845, which includes all monitoring wells used in the 2022 40 C.F.R. § 257 monitoring system (Ramboll, 2022a). No wells were installed or decommissioned in 2023 (the wells added from the 35 I.A.C. § 845 monitoring system were installed prior to 2023).

One groundwater sample was collected from each background and compliance well during each monitoring event. The GMF Pond is also regulated under 35 I.A.C. § 845, which requires quarterly monitoring. The groundwater monitoring systems for both programs (35 I.A.C. § 845 and 40 C.F.R. § 257) are identical, so all available data from the four quarterly monitoring events in 2023 are included in this report. All samples were collected and analyzed in accordance with the Multi-Site Sampling and Analysis Plan (SAP) (Ramboll, 2023). All data collected for the 40 C.F.R. § 257 monitoring program and 40 C.F.R. § 257 Appendix III parameters that were analyzed under the 35 I.A.C. § 845 program were compared to background concentrations in accordance with 40 C.F.R. § 257.94(e)(1).

Potentiometric surfaces for the quarterly sampling events are included in **Figures 2 through 5**. All monitoring data and analytical results obtained under 40 C.F.R. § 257.90 through 257.98 and 40 C.F.R. § 257 Appendix III parameters that were analyzed under the 35 I.A.C. § 845 program 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, 2022b), the Multi-Site Quality Assurance Project Plan (Ramboll, 2022c), and the Multi-Site Data Management Plan (Ramboll, 2022d) to determine any SSIs of Appendix III parameters greater than background values. 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**.

Potential alternative sources were evaluated as outlined in the 40 C.F.R. § 257.94(e)(2). ASDs were completed in 2023 for the SSIs summarized in **Table A**. The dates the ASDs were completed are also provided in **Table A**. The ASDs were certified by a qualified professional engineer and are included in **Appendix D**. The GMF Pond remains in the Detection Monitoring Program.

Table A. 2023 Detection Monitoring Program Summary

Event ID	Sampling Dates ^{1, 2, 3}	Analytical Data Receipt Date ⁴	SSI(s) Determination Date	SSI(s)	ASD Completion Date
D11 ⁵	July 19 – 21, 2022	October 06, 2022	January 04, 2023	Calcium at wells G54S, G57S, and G60S; TDS at wells G54S, G57S, and G60S	April 04, 2023
D11R	October 26, 2022	November 30, 2022	NA	NA	NA
D12	January 11 - January 16, 2023	February 15, 2023	May 16, 2023	Calcium at wells G54S, G54L, G57S, and G60S; Chloride at well G54L; Sulfate at well G60L; TDS at wells G54S, G54L, G57S, G60S, G60L, and G64L; pH at well G60L	August 14, 2023
D12R	May 10 – May 15, 2023	July 18, 2023	NA	NA	NA
D13	July 18 - July 27, 2023	October 19, 2023	January 17, 2024	Calcium at wells G54L, G57S, and G60S; Chloride at well G54L; Sulfate at wells G54L and G60L; TDS at wells G54S, G54L, G57S, G60S, G60L, and G64L; pH at well G60L	TBD
D13R	October 19 - 20, 23, 26, 27, and 31, 2023	January 2, 2024	January 17, 2024	NA	NA

Notes:

ASD: Alternative Source Demonstration

NA: not applicable

SSI: Statistically Significant Increase

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: G02S, G50S, and G51S

³ The following compliance wells were sampled for each event: G54S, G54L, G57S, G60S, G60L, G64S, G64L

⁴ All data collected for the 40 C.F.R. § 257 monitoring program and Appendix III parameters that were analyzed under the 35 I.A.C. § 845 program were included for background calculations in accordance with 40 C.F.R. § 257.94(e)(1).

⁵ Laboratory reports for this event were included in the 2022 Annual Groundwater Monitoring and Corrective Action Report.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

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

5. KEY ACTIVITIES PLANNED FOR 2024

The following key activities are planned for 2024:

- Continuation of the Detection Monitoring Program with semiannual sampling scheduled for the first and third quarters of 2024 (and sampling for 35 I.A.C. § 845 scheduled for the second and fourth quarters).
- Complete evaluation of analytical data from the compliance wells 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. 40 C.F.R. § 257 Groundwater Monitoring Plan, the Gypsum Management Facility Pond, Duck Creek Power Plant, Canton, Illinois. December 28, 2022.

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

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

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

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

TABLES

TABLE 1
GROUNDWATER ELEVATION DATA
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G02S	Background	UA	01/09/2023	13.16	608.50
G02S	Background	UA	04/08/2023	4.87	616.79
G02S	Background	UA	05/08/2023	5.57	616.09
G02S	Background	UA	07/25/2023	[10.47]	[611.19]
G02S	Background	UA	10/16/2023	14.23	607.43
G02S	Background	UA	11/20/2023	12.35	609.31
G02S	Background	UA	12/04/2023	10.71	610.95
G50S	Background	UA	01/09/2023	17.05	606.60
G50S	Background	UA	04/08/2023	10.78	612.87
G50S	Background	UA	05/08/2023	11.42	612.23
G50S	Background	UA	06/17/2023	15.08	608.56
G50S	Background	UA	07/17/2023	13.89	609.75
G50S	Background	UA	08/16/2023	13.11	610.54
G50S	Background	UA	09/16/2023	17.36	606.29
G50S	Background	UA	10/16/2023	18.80	604.85
G50S	Background	UA	11/20/2023	17.85	605.80
G50S	Background	UA	12/04/2023	15.96	607.69
G51S	Background	UA	01/09/2023	16.76	602.90
G51S	Background	UA	04/08/2023	8.58	611.07
G51S	Background	UA	05/08/2023	8.84	610.82
G51S	Background	UA	06/17/2023	16.10	603.55
G51S	Background	UA	07/17/2023	15.14	604.51
G51S	Background	UA	08/16/2023	13.92	605.74
G51S	Background	UA	09/16/2023	18.00	601.66
G51S	Background	UA	10/16/2023	19.81	599.85
G51S	Background	UA	11/20/2023	18.64	601.02
G51S	Background	UA	12/04/2023	17.80	601.86
G54L	Compliance	PMP	01/09/2023	26.95	596.00
G54L	Compliance	PMP	04/08/2023	23.09	599.86
G54L	Compliance	PMP	05/08/2023	22.31	600.64
G54L	Compliance	PMP	06/17/2023	22.38	600.57
G54L	Compliance	PMP	07/17/2023	22.52	600.42
G54L	Compliance	PMP	08/16/2023	21.85	601.10
G54L	Compliance	PMP	09/16/2023	21.52	601.43
G54L	Compliance	PMP	10/16/2023	21.89	601.06
G54L	Compliance	PMP	11/20/2023	22.85	600.10
G54L	Compliance	PMP	12/04/2023	23.32	599.63
G54S	Compliance	UA	01/09/2023	26.55	596.43
G54S	Compliance	UA	04/08/2023	24.32	598.66
G54S	Compliance	UA	05/08/2023	23.53	599.45
G54S	Compliance	UA	06/17/2023	23.65	599.32
G54S	Compliance	UA	07/17/2023	23.75	599.22
G54S	Compliance	UA	08/16/2023	23.05	599.93
G54S	Compliance	UA	09/16/2023	22.73	600.25
G54S	Compliance	UA	10/16/2023	23.12	599.86
G54S	Compliance	UA	11/20/2023	23.94	599.04

TABLE 1
GROUNDWATER ELEVATION DATA
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G54S	Compliance	UA	12/04/2023	24.36	598.62
G57S	Compliance	UA	01/09/2023	28.51	594.25
G57S	Compliance	UA	04/08/2023	20.42	602.34
G57S	Compliance	UA	05/08/2023	20.37	602.39
G57S	Compliance	UA	06/17/2023	22.67	600.08
G57S	Compliance	UA	07/17/2023	22.24	600.52
G57S	Compliance	UA	08/16/2023	21.61	601.14
G57S	Compliance	UA	09/16/2023	23.18	599.57
G57S	Compliance	UA	10/16/2023	24.83	597.93
G57S	Compliance	UA	11/20/2023	25.87	596.89
G57S	Compliance	UA	12/04/2023	26.24	596.52
G60L	Compliance	PMP	01/09/2023	24.15	591.24
G60L	Compliance	PMP	04/08/2023	8.49	606.90
G60L	Compliance	PMP	05/08/2023	12.10	603.29
G60L	Compliance	PMP	06/17/2023	15.93	599.46
G60L	Compliance	PMP	07/17/2023	12.01	603.38
G60L	Compliance	PMP	08/16/2023	10.25	605.14
G60L	Compliance	PMP	09/16/2023	15.40	599.99
G60L	Compliance	PMP	10/16/2023	18.65	596.74
G60L	Compliance	PMP	11/20/2023	20.90	594.49
G60L	Compliance	PMP	12/04/2023	21.58	593.81
G60S	Compliance	UA	01/09/2023	28.33	586.70
G60S	Compliance	UA	04/08/2023	24.95	590.07
G60S	Compliance	UA	05/08/2023	25.34	589.69
G60S	Compliance	UA	06/17/2023	26.23	588.80
G60S	Compliance	UA	07/17/2023	24.60	590.43
G60S	Compliance	UA	08/16/2023	26.50	588.52
G60S	Compliance	UA	09/16/2023	26.62	588.40
G60S	Compliance	UA	10/16/2023	26.67	588.36
G60S	Compliance	UA	11/20/2023	26.20	588.83
G60S	Compliance	UA	12/04/2023	23.65	591.38
G64L	Compliance	PMP	01/09/2023	26.84	595.62
G64L	Compliance	PMP	04/08/2023	20.85	601.61
G64L	Compliance	PMP	05/08/2023	20.89	601.57
G64L	Compliance	PMP	06/17/2023	22.43	600.02
G64L	Compliance	PMP	07/17/2023	22.64	599.81
G64L	Compliance	PMP	08/16/2023	22.69	599.77
G64L	Compliance	PMP	09/16/2023	23.47	598.99
G64L	Compliance	PMP	10/16/2023	24.58	597.88
G64L	Compliance	PMP	11/20/2023	25.16	597.30
G64L	Compliance	PMP	12/04/2023	25.51	596.95
G64S	Compliance	UA	01/09/2023	27.82	595.24
G64S	Compliance	UA	04/08/2023	23.54	599.52
G64S	Compliance	UA	05/08/2023	23.40	599.66
G64S	Compliance	UA	06/17/2023	24.39	598.67
G64S	Compliance	UA	07/17/2023	24.02	599.04

TABLE 1
GROUNDWATER ELEVATION DATA
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G64S	Compliance	UA	08/16/2023	23.89	599.17
G64S	Compliance	UA	09/16/2023	24.62	598.44
G64S	Compliance	UA	10/16/2023	25.50	597.56
G64S	Compliance	UA	11/20/2023	26.02	597.04
G64S	Compliance	UA	12/04/2023	26.29	596.77

Notes:
Only wells with groundwater elevations measured are included.
BMP = below measuring point
Bracketing [] indicates that the measurement was obtained outside of the episodic depth to groundwater measurements time frame.
NAVD88 = North American Vertical Datum of 1988
Monitored Unit Abbreviations:
PMP = potential migration pathway
UA = uppermost aquifer

Generated 2024-01-22 20:53:20.148052 by banoffra

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G02S	UA	Background	01/11/2023	D12	Boron, total	mg/L	0.130	NA	NA
G02S	UA	Background	05/15/2023	D12R	Boron, total	mg/L	0.0640 J+	NA	NA
G02S	UA	Background	07/25/2023	D13	Boron, total	mg/L	0.0370 J+	NA	NA
G02S	UA	Background	10/19/2023	D13R	Boron, total	mg/L	0.0400	NA	NA
G02S	UA	Background	01/11/2023	D12	Calcium, total	mg/L	97.0	NA	NA
G02S	UA	Background	05/15/2023	D12R	Calcium, total	mg/L	96.0 J+	NA	NA
G02S	UA	Background	07/25/2023	D13	Calcium, total	mg/L	100	NA	NA
G02S	UA	Background	10/19/2023	D13R	Calcium, total	mg/L	96.0	NA	NA
G02S	UA	Background	01/11/2023	D12	Chloride, total	mg/L	4.8 UJ	NA	NA
G02S	UA	Background	05/15/2023	D12R	Chloride, total	mg/L	2.60	NA	NA
G02S	UA	Background	07/25/2023	D13	Chloride, total	mg/L	1.60	NA	NA
G02S	UA	Background	10/19/2023	D13R	Chloride, total	mg/L	2.30	NA	NA
G02S	UA	Background	01/11/2023	D12	Fluoride, total	mg/L	0.320	NA	NA
G02S	UA	Background	05/15/2023	D12R	Fluoride, total	mg/L	0.282	NA	NA
G02S	UA	Background	07/25/2023	D13	Fluoride, total	mg/L	0.397 J+	NA	NA
G02S	UA	Background	10/19/2023	D13R	Fluoride, total	mg/L	0.242	NA	NA
G02S	UA	Background	01/11/2023	D12	pH (field)	SU	6.6	NA	NA
G02S	UA	Background	05/15/2023	D12R	pH (field)	SU	6.8	NA	NA
G02S	UA	Background	07/25/2023	D13	pH (field)	SU	6.6	NA	NA
G02S	UA	Background	10/19/2023	D13R	pH (field)	SU	6.7	NA	NA
G02S	UA	Background	01/11/2023	D12	Sulfate, total	mg/L	0.18 U	NA	NA
G02S	UA	Background	05/15/2023	D12R	Sulfate, total	mg/L	0.19 J	NA	NA
G02S	UA	Background	07/25/2023	D13	Sulfate, total	mg/L	1 UJ	NA	NA
G02S	UA	Background	10/19/2023	D13R	Sulfate, total	mg/L	0.18 U	NA	NA
G02S	UA	Background	01/11/2023	D12	Total Dissolved Solids	mg/L	490	NA	NA
G02S	UA	Background	05/15/2023	D12R	Total Dissolved Solids	mg/L	430	NA	NA
G02S	UA	Background	07/25/2023	D13	Total Dissolved Solids	mg/L	440	NA	NA
G02S	UA	Background	10/19/2023	D13R	Total Dissolved Solids	mg/L	430	NA	NA
G50S	UA	Background	01/12/2023	D12	Boron, total	mg/L	0.0170	NA	NA
G50S	UA	Background	05/15/2023	D12R	Boron, total	mg/L	0.0300 J+	NA	NA
G50S	UA	Background	07/27/2023	D13	Boron, total	mg/L	0.0190 J+	NA	NA
G50S	UA	Background	10/23/2023	D13R	Boron, total	mg/L	0.0220 J+	NA	NA
G50S	UA	Background	01/12/2023	D12	Calcium, total	mg/L	87.0	NA	NA
G50S	UA	Background	05/15/2023	D12R	Calcium, total	mg/L	90.0 J+	NA	NA
G50S	UA	Background	07/27/2023	D13	Calcium, total	mg/L	92.0	NA	NA
G50S	UA	Background	10/23/2023	D13R	Calcium, total	mg/L	87.0	NA	NA
G50S	UA	Background	01/12/2023	D12	Chloride, total	mg/L	11.0	NA	NA
G50S	UA	Background	05/15/2023	D12R	Chloride, total	mg/L	9.50	NA	NA
G50S	UA	Background	07/27/2023	D13	Chloride, total	mg/L	13.0	NA	NA
G50S	UA	Background	10/23/2023	D13R	Chloride, total	mg/L	10.0	NA	NA
G50S	UA	Background	01/12/2023	D12	Fluoride, total	mg/L	0.259	NA	NA
G50S	UA	Background	05/15/2023	D12R	Fluoride, total	mg/L	0.225 J	NA	NA
G50S	UA	Background	07/27/2023	D13	Fluoride, total	mg/L	0.322	NA	NA
G50S	UA	Background	10/23/2023	D13R	Fluoride, total	mg/L	0.202	NA	NA
G50S	UA	Background	01/12/2023	D12	pH (field)	SU	6.8	NA	NA
G50S	UA	Background	05/15/2023	D12R	pH (field)	SU	7.3	NA	NA

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G50S	UA	Background	07/27/2023	D13	pH (field)	SU	6.6	NA	NA
G50S	UA	Background	10/23/2023	D13R	pH (field)	SU	7.1	NA	NA
G50S	UA	Background	01/12/2023	D12	Sulfate, total	mg/L	38.0	NA	NA
G50S	UA	Background	05/15/2023	D12R	Sulfate, total	mg/L	40.0	NA	NA
G50S	UA	Background	07/27/2023	D13	Sulfate, total	mg/L	48.0	NA	NA
G50S	UA	Background	10/23/2023	D13R	Sulfate, total	mg/L	42.0	NA	NA
G50S	UA	Background	01/12/2023	D12	Total Dissolved Solids	mg/L	410	NA	NA
G50S	UA	Background	05/15/2023	D12R	Total Dissolved Solids	mg/L	380	NA	NA
G50S	UA	Background	07/27/2023	D13	Total Dissolved Solids	mg/L	440	NA	NA
G50S	UA	Background	10/23/2023	D13R	Total Dissolved Solids	mg/L	610	NA	NA
G51S	UA	Background	01/12/2023	D12	Boron, total	mg/L	0.0120	NA	NA
G51S	UA	Background	05/15/2023	D12R	Boron, total	mg/L	0.0210 J+	NA	NA
G51S	UA	Background	07/18/2023	D13	Boron, total	mg/L	0.0130	NA	NA
G51S	UA	Background	10/26/2023	D13R	Boron, total	mg/L	0.01 UJ	NA	NA
G51S	UA	Background	01/12/2023	D12	Calcium, total	mg/L	94.0	NA	NA
G51S	UA	Background	05/15/2023	D12R	Calcium, total	mg/L	98.0 J+	NA	NA
G51S	UA	Background	07/18/2023	D13	Calcium, total	mg/L	98.0	NA	NA
G51S	UA	Background	10/26/2023	D13R	Calcium, total	mg/L	91.0	NA	NA
G51S	UA	Background	01/12/2023	D12	Chloride, total	mg/L	13.0	NA	NA
G51S	UA	Background	05/15/2023	D12R	Chloride, total	mg/L	12.0	NA	NA
G51S	UA	Background	07/18/2023	D13	Chloride, total	mg/L	15.0	NA	NA
G51S	UA	Background	10/26/2023	D13R	Chloride, total	mg/L	14.0	NA	NA
G51S	UA	Background	01/12/2023	D12	Fluoride, total	mg/L	0.236 J	NA	NA
G51S	UA	Background	05/15/2023	D12R	Fluoride, total	mg/L	0.206 J	NA	NA
G51S	UA	Background	07/18/2023	D13	Fluoride, total	mg/L	0.278	NA	NA
G51S	UA	Background	10/26/2023	D13R	Fluoride, total	mg/L	0.19	NA	NA
G51S	UA	Background	01/12/2023	D12	pH (field)	SU	6.4	NA	NA
G51S	UA	Background	05/15/2023	D12R	pH (field)	SU	7.1	NA	NA
G51S	UA	Background	07/18/2023	D13	pH (field)	SU	6.9	NA	NA
G51S	UA	Background	10/26/2023	D13R	pH (field)	SU	7.1	NA	NA
G51S	UA	Background	01/12/2023	D12	Sulfate, total	mg/L	51.0	NA	NA
G51S	UA	Background	05/15/2023	D12R	Sulfate, total	mg/L	56.0	NA	NA
G51S	UA	Background	07/18/2023	D13	Sulfate, total	mg/L	59.0	NA	NA
G51S	UA	Background	10/26/2023	D13R	Sulfate, total	mg/L	60.0	NA	NA
G51S	UA	Background	01/12/2023	D12	Total Dissolved Solids	mg/L	440	NA	NA
G51S	UA	Background	05/15/2023	D12R	Total Dissolved Solids	mg/L	430	NA	NA
G51S	UA	Background	07/18/2023	D13	Total Dissolved Solids	mg/L	420	NA	NA
G51S	UA	Background	10/26/2023	D13R	Total Dissolved Solids	mg/L	420	NA	NA
G54L	PMP	Compliance	01/16/2023	D12	Boron, total	mg/L	0.0120	0.0590	No Exceedance
G54L	PMP	Compliance	05/12/2023	D12R	Boron, total	mg/L	0.0950 J+	0.0590	Exceedance Not Confirmed
G54L	PMP	Compliance	07/20/2023	D13	Boron, total	mg/L	0.0320 J+	0.0590	No Exceedance
G54L	PMP	Compliance	10/27/2023	D13R	Boron, total	mg/L	0.0380 J+	0.0590	No Exceedance
G54L	PMP	Compliance	01/16/2023	D12	Calcium, total	mg/L	170	112	Confirmed
G54L	PMP	Compliance	05/12/2023	D12R	Calcium, total	mg/L	190	112	Confirmed
G54L	PMP	Compliance	07/20/2023	D13	Calcium, total	mg/L	180	112	Confirmed
G54L	PMP	Compliance	10/27/2023	D13R	Calcium, total	mg/L	190	112	Confirmed

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G54L	PMP	Compliance	01/16/2023	D12	Chloride, total	mg/L	29.0	22.5	Confirmed
G54L	PMP	Compliance	05/12/2023	D12R	Chloride, total	mg/L	33.0	22.5	Confirmed
G54L	PMP	Compliance	07/20/2023	D13	Chloride, total	mg/L	43.0	22.5	Confirmed
G54L	PMP	Compliance	10/27/2023	D13R	Chloride, total	mg/L	43.0	22.5	Confirmed
G54L	PMP	Compliance	01/16/2023	D12	Fluoride, total	mg/L	0.04 U	0.564	No Exceedance
G54L	PMP	Compliance	05/12/2023	D12R	Fluoride, total	mg/L	0.188 J	0.564	No Exceedance
G54L	PMP	Compliance	07/20/2023	D13	Fluoride, total	mg/L	0.306	0.564	No Exceedance
G54L	PMP	Compliance	10/27/2023	D13R	Fluoride, total	mg/L	0.204	0.564	No Exceedance
G54L	PMP	Compliance	01/16/2023	D12	pH (field)	SU	6.9	6.5/7.5	No Exceedance
G54L	PMP	Compliance	05/12/2023	D12R	pH (field)	SU	6.5	6.5/7.5	No Exceedance
G54L	PMP	Compliance	07/20/2023	D13	pH (field)	SU	6.5	6.5/7.5	No Exceedance
G54L	PMP	Compliance	10/27/2023	D13R	pH (field)	SU	6.5	6.5/7.5	No Exceedance
G54L	PMP	Compliance	01/16/2023	D12	Sulfate, total	mg/L	87.0	97.0	No Exceedance
G54L	PMP	Compliance	05/12/2023	D12R	Sulfate, total	mg/L	120	97.0	Exceedance Not Confirmed
G54L	PMP	Compliance	07/20/2023	D13	Sulfate, total	mg/L	120	97.0	Confirmed
G54L	PMP	Compliance	10/27/2023	D13R	Sulfate, total	mg/L	110	97.0	Confirmed
G54L	PMP	Compliance	01/16/2023	D12	Total Dissolved Solids	mg/L	900	499	Confirmed
G54L	PMP	Compliance	05/12/2023	D12R	Total Dissolved Solids	mg/L	520	499	Confirmed
G54L	PMP	Compliance	07/20/2023	D13	Total Dissolved Solids	mg/L	1,100 J	499	Confirmed
G54L	PMP	Compliance	10/27/2023	D13R	Total Dissolved Solids	mg/L	930	499	Confirmed
G54S	UA	Compliance	01/16/2023	D12	Boron, total	mg/L	0.0310	0.0590	No Exceedance
G54S	UA	Compliance	05/12/2023	D12R	Boron, total	mg/L	0.0620 J+	0.0590	Exceedance Not Confirmed
G54S	UA	Compliance	07/20/2023	D13	Boron, total	mg/L	0.0380 J+	0.0590	No Exceedance
G54S	UA	Compliance	10/27/2023	D13R	Boron, total	mg/L	0.0480 J+	0.0590	No Exceedance
G54S	UA	Compliance	01/16/2023	D12	Calcium, total	mg/L	120	112	Confirmed
G54S	UA	Compliance	05/12/2023	D12R	Calcium, total	mg/L	130	112	Confirmed
G54S	UA	Compliance	07/20/2023	D13	Calcium, total	mg/L	110	112	No Exceedance
G54S	UA	Compliance	10/27/2023	D13R	Calcium, total	mg/L	120	112	Exceedance Not Confirmed
G54S	UA	Compliance	01/16/2023	D12	Chloride, total	mg/L	3.70	22.5	No Exceedance
G54S	UA	Compliance	05/12/2023	D12R	Chloride, total	mg/L	4.8 U	22.5	No Exceedance
G54S	UA	Compliance	07/20/2023	D13	Chloride, total	mg/L	6.40	22.5	No Exceedance
G54S	UA	Compliance	10/27/2023	D13R	Chloride, total	mg/L	4.50	22.5	No Exceedance
G54S	UA	Compliance	01/16/2023	D12	Fluoride, total	mg/L	0.04 U	0.564	No Exceedance
G54S	UA	Compliance	05/12/2023	D12R	Fluoride, total	mg/L	0.186 J	0.564	No Exceedance
G54S	UA	Compliance	07/20/2023	D13	Fluoride, total	mg/L	0.374	0.564	No Exceedance
G54S	UA	Compliance	10/27/2023	D13R	Fluoride, total	mg/L	0.187	0.564	No Exceedance
G54S	UA	Compliance	01/16/2023	D12	pH (field)	SU	6.9	6.5/7.5	No Exceedance
G54S	UA	Compliance	05/12/2023	D12R	pH (field)	SU	6.7	6.5/7.5	No Exceedance
G54S	UA	Compliance	07/20/2023	D13	pH (field)	SU	6.8	6.5/7.5	No Exceedance
G54S	UA	Compliance	10/27/2023	D13R	pH (field)	SU	6.8	6.5/7.5	No Exceedance
G54S	UA	Compliance	01/16/2023	D12	Sulfate, total	mg/L	30.0	97.0	No Exceedance
G54S	UA	Compliance	05/12/2023	D12R	Sulfate, total	mg/L	31.0	97.0	No Exceedance
G54S	UA	Compliance	07/20/2023	D13	Sulfate, total	mg/L	36.0	97.0	No Exceedance
G54S	UA	Compliance	10/27/2023	D13R	Sulfate, total	mg/L	33.0	97.0	No Exceedance
G54S	UA	Compliance	01/16/2023	D12	Total Dissolved Solids	mg/L	580	499	Confirmed

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G54S	UA	Compliance	05/12/2023	D12R	Total Dissolved Solids	mg/L	540	499	Confirmed
G54S	UA	Compliance	07/20/2023	D13	Total Dissolved Solids	mg/L	610 J	499	Confirmed
G54S	UA	Compliance	10/27/2023	D13R	Total Dissolved Solids	mg/L	550	499	Confirmed
G57S	UA	Compliance	01/12/2023	D12	Boron, total	mg/L	0.0092 J	0.0590	No Exceedance
G57S	UA	Compliance	05/11/2023	D12R	Boron, total	mg/L	0.01 UJ	0.0590	No Exceedance
G57S	UA	Compliance	07/20/2023	D13	Boron, total	mg/L	0.0130 J+	0.0590	No Exceedance
G57S	UA	Compliance	10/20/2023	D13R	Boron, total	mg/L	0.0086	0.0590	No Exceedance
G57S	UA	Compliance	01/12/2023	D12	Calcium, total	mg/L	160	112	Confirmed
G57S	UA	Compliance	05/11/2023	D12R	Calcium, total	mg/L	170	112	Confirmed
G57S	UA	Compliance	07/20/2023	D13	Calcium, total	mg/L	150	112	Confirmed
G57S	UA	Compliance	10/20/2023	D13R	Calcium, total	mg/L	170	112	Confirmed
G57S	UA	Compliance	01/12/2023	D12	Chloride, total	mg/L	18.0	22.5	No Exceedance
G57S	UA	Compliance	05/11/2023	D12R	Chloride, total	mg/L	16.0	22.5	No Exceedance
G57S	UA	Compliance	07/20/2023	D13	Chloride, total	mg/L	20.0	22.5	No Exceedance
G57S	UA	Compliance	10/20/2023	D13R	Chloride, total	mg/L	15.0	22.5	No Exceedance
G57S	UA	Compliance	01/12/2023	D12	Fluoride, total	mg/L	0.279	0.564	No Exceedance
G57S	UA	Compliance	05/11/2023	D12R	Fluoride, total	mg/L	0.243 J	0.564	No Exceedance
G57S	UA	Compliance	07/20/2023	D13	Fluoride, total	mg/L	0.253	0.564	No Exceedance
G57S	UA	Compliance	10/20/2023	D13R	Fluoride, total	mg/L	0.2	0.564	No Exceedance
G57S	UA	Compliance	01/12/2023	D12	pH (field)	SU	6.7	6.5/7.5	No Exceedance
G57S	UA	Compliance	05/11/2023	D12R	pH (field)	SU	6.9	6.5/7.5	No Exceedance
G57S	UA	Compliance	07/20/2023	D13	pH (field)	SU	6.7	6.5/7.5	No Exceedance
G57S	UA	Compliance	10/20/2023	D13R	pH (field)	SU	6.4	6.5/7.5	Exceedance Not Confirmed
G57S	UA	Compliance	01/12/2023	D12	Sulfate, total	mg/L	49.0	97.0	No Exceedance
G57S	UA	Compliance	05/11/2023	D12R	Sulfate, total	mg/L	49.0	97.0	No Exceedance
G57S	UA	Compliance	07/20/2023	D13	Sulfate, total	mg/L	49.0	97.0	No Exceedance
G57S	UA	Compliance	10/20/2023	D13R	Sulfate, total	mg/L	46.0	97.0	No Exceedance
G57S	UA	Compliance	01/12/2023	D12	Total Dissolved Solids	mg/L	780	499	Confirmed
G57S	UA	Compliance	05/11/2023	D12R	Total Dissolved Solids	mg/L	890 J+	499	Confirmed
G57S	UA	Compliance	07/20/2023	D13	Total Dissolved Solids	mg/L	930 J	499	Confirmed
G57S	UA	Compliance	10/20/2023	D13R	Total Dissolved Solids	mg/L	820	499	Confirmed
G60L	PMP	Compliance	01/12/2023	D12	Boron, total	mg/L	0.0280	0.0590	No Exceedance
G60L	PMP	Compliance	05/12/2023	D12R	Boron, total	mg/L	0.0420 J+	0.0590	No Exceedance
G60L	PMP	Compliance	07/20/2023	D13	Boron, total	mg/L	0.0310 J+	0.0590	No Exceedance
G60L	PMP	Compliance	10/23/2023	D13R	Boron, total	mg/L	0.0280 J+	0.0590	No Exceedance
G60L	PMP	Compliance	01/12/2023	D12	Calcium, total	mg/L	110	112	No Exceedance
G60L	PMP	Compliance	05/12/2023	D12R	Calcium, total	mg/L	100	112	No Exceedance
G60L	PMP	Compliance	07/20/2023	D13	Calcium, total	mg/L	87.0	112	No Exceedance
G60L	PMP	Compliance	10/23/2023	D13R	Calcium, total	mg/L	91.0	112	No Exceedance
G60L	PMP	Compliance	01/12/2023	D12	Chloride, total	mg/L	15.0	22.5	No Exceedance
G60L	PMP	Compliance	05/12/2023	D12R	Chloride, total	mg/L	11.0	22.5	No Exceedance
G60L	PMP	Compliance	07/20/2023	D13	Chloride, total	mg/L	12.0	22.5	No Exceedance
G60L	PMP	Compliance	10/23/2023	D13R	Chloride, total	mg/L	9.30	22.5	No Exceedance
G60L	PMP	Compliance	01/12/2023	D12	Fluoride, total	mg/L	0.105 J	0.564	No Exceedance
G60L	PMP	Compliance	05/12/2023	D12R	Fluoride, total	mg/L	0.072 J	0.564	No Exceedance
G60L	PMP	Compliance	07/20/2023	D13	Fluoride, total	mg/L	0.198 J	0.564	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G60L	PMP	Compliance	10/23/2023	D13R	Fluoride, total	mg/L	0.0733	0.564	No Exceedance
G60L	PMP	Compliance	01/12/2023	D12	pH (field)	SU	5.9	6.5/7.5	Confirmed
G60L	PMP	Compliance	05/12/2023	D12R	pH (field)	SU	6.0	6.5/7.5	Confirmed
G60L	PMP	Compliance	07/20/2023	D13	pH (field)	SU	5.8	6.5/7.5	Confirmed
G60L	PMP	Compliance	10/23/2023	D13R	pH (field)	SU	6.0	6.5/7.5	Confirmed
G60L	PMP	Compliance	01/12/2023	D12	Sulfate, total	mg/L	150	97.0	Confirmed
G60L	PMP	Compliance	05/12/2023	D12R	Sulfate, total	mg/L	160	97.0	Confirmed
G60L	PMP	Compliance	07/20/2023	D13	Sulfate, total	mg/L	190	97.0	Confirmed
G60L	PMP	Compliance	10/23/2023	D13R	Sulfate, total	mg/L	170	97.0	Confirmed
G60L	PMP	Compliance	01/12/2023	D12	Total Dissolved Solids	mg/L	630	499	Confirmed
G60L	PMP	Compliance	05/12/2023	D12R	Total Dissolved Solids	mg/L	510	499	Confirmed
G60L	PMP	Compliance	07/20/2023	D13	Total Dissolved Solids	mg/L	660	499	Confirmed
G60L	PMP	Compliance	10/23/2023	D13R	Total Dissolved Solids	mg/L	600	499	Confirmed
G60S	UA	Compliance	01/12/2023	D12	Boron, total	mg/L	0.0210	0.0590	No Exceedance
G60S	UA	Compliance	05/12/2023	D12R	Boron, total	mg/L	0.0300 J+	0.0590	No Exceedance
G60S	UA	Compliance	07/20/2023	D13	Boron, total	mg/L	0.0310 J+	0.0590	No Exceedance
G60S	UA	Compliance	10/31/2023	D13R	Boron, total	mg/L	0.0380 J+	0.0590	No Exceedance
G60S	UA	Compliance	01/12/2023	D12	Calcium, total	mg/L	170	112	Confirmed
G60S	UA	Compliance	05/12/2023	D12R	Calcium, total	mg/L	140	112	Confirmed
G60S	UA	Compliance	07/20/2023	D13	Calcium, total	mg/L	130	112	Confirmed
G60S	UA	Compliance	10/31/2023	D13R	Calcium, total	mg/L	180	112	Confirmed
G60S	UA	Compliance	01/12/2023	D12	Chloride, total	mg/L	8.40 B	22.5	No Exceedance
G60S	UA	Compliance	05/12/2023	D12R	Chloride, total	mg/L	7.00	22.5	No Exceedance
G60S	UA	Compliance	07/20/2023	D13	Chloride, total	mg/L	5.70	22.5	No Exceedance
G60S	UA	Compliance	10/31/2023	D13R	Chloride, total	mg/L	8.40	22.5	No Exceedance
G60S	UA	Compliance	01/12/2023	D12	Fluoride, total	mg/L	0.226 J	0.564	No Exceedance
G60S	UA	Compliance	05/12/2023	D12R	Fluoride, total	mg/L	0.179 J	0.564	No Exceedance
G60S	UA	Compliance	07/20/2023	D13	Fluoride, total	mg/L	0.328	0.564	No Exceedance
G60S	UA	Compliance	10/31/2023	D13R	Fluoride, total	mg/L	0.162	0.564	No Exceedance
G60S	UA	Compliance	01/12/2023	D12	pH (field)	SU	6.7	6.5/7.5	No Exceedance
G60S	UA	Compliance	05/12/2023	D12R	pH (field)	SU	6.8	6.5/7.5	No Exceedance
G60S	UA	Compliance	07/20/2023	D13	pH (field)	SU	6.7	6.5/7.5	No Exceedance
G60S	UA	Compliance	10/31/2023	D13R	pH (field)	SU	6.6	6.5/7.5	No Exceedance
G60S	UA	Compliance	01/12/2023	D12	Sulfate, total	mg/L	69.0	97.0	No Exceedance
G60S	UA	Compliance	05/12/2023	D12R	Sulfate, total	mg/L	68.0	97.0	No Exceedance
G60S	UA	Compliance	07/20/2023	D13	Sulfate, total	mg/L	77.0	97.0	No Exceedance
G60S	UA	Compliance	10/31/2023	D13R	Sulfate, total	mg/L	74.0	97.0	No Exceedance
G60S	UA	Compliance	01/12/2023	D12	Total Dissolved Solids	mg/L	620	499	Confirmed
G60S	UA	Compliance	05/12/2023	D12R	Total Dissolved Solids	mg/L	600	499	Confirmed
G60S	UA	Compliance	07/20/2023	D13	Total Dissolved Solids	mg/L	1,200 J	499	Confirmed
G60S	UA	Compliance	10/31/2023	D13R	Total Dissolved Solids	mg/L	660	499	Confirmed
G64L	PMP	Compliance	01/11/2023	D12	Boron, total	mg/L	0.0140	0.0590	No Exceedance
G64L	PMP	Compliance	05/15/2023	D12R	Boron, total	mg/L	0.0310 J+	0.0590	No Exceedance
G64L	PMP	Compliance	07/27/2023	D13	Boron, total	mg/L	0.0410 J+	0.0590	No Exceedance
G64L	PMP	Compliance	10/26/2023	D13R	Boron, total	mg/L	0.0071 U	0.0590	No Exceedance
G64L	PMP	Compliance	01/11/2023	D12	Calcium, total	mg/L	110	112	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G64L	PMP	Compliance	05/15/2023	D12R	Calcium, total	mg/L	110 J+	112	No Exceedance
G64L	PMP	Compliance	07/27/2023	D13	Calcium, total	mg/L	110	112	No Exceedance
G64L	PMP	Compliance	10/26/2023	D13R	Calcium, total	mg/L	110	112	No Exceedance
G64L	PMP	Compliance	01/11/2023	D12	Chloride, total	mg/L	4.8 U	22.5	No Exceedance
G64L	PMP	Compliance	05/15/2023	D12R	Chloride, total	mg/L	2.80	22.5	No Exceedance
G64L	PMP	Compliance	07/27/2023	D13	Chloride, total	mg/L	1.80	22.5	No Exceedance
G64L	PMP	Compliance	10/26/2023	D13R	Chloride, total	mg/L	2.90	22.5	No Exceedance
G64L	PMP	Compliance	01/11/2023	D12	Fluoride, total	mg/L	0.287	0.564	No Exceedance
G64L	PMP	Compliance	05/15/2023	D12R	Fluoride, total	mg/L	0.241 J	0.564	No Exceedance
G64L	PMP	Compliance	07/27/2023	D13	Fluoride, total	mg/L	0.444	0.564	No Exceedance
G64L	PMP	Compliance	10/26/2023	D13R	Fluoride, total	mg/L	0.224	0.564	No Exceedance
G64L	PMP	Compliance	01/11/2023	D12	pH (field)	SU	6.6	6.5/7.5	No Exceedance
G64L	PMP	Compliance	05/15/2023	D12R	pH (field)	SU	7.0	6.5/7.5	No Exceedance
G64L	PMP	Compliance	07/27/2023	D13	pH (field)	SU	7.0	6.5/7.5	No Exceedance
G64L	PMP	Compliance	10/26/2023	D13R	pH (field)	SU	6.8	6.5/7.5	No Exceedance
G64L	PMP	Compliance	01/11/2023	D12	Sulfate, total	mg/L	33.0	97.0	No Exceedance
G64L	PMP	Compliance	05/15/2023	D12R	Sulfate, total	mg/L	69.0	97.0	No Exceedance
G64L	PMP	Compliance	07/27/2023	D13	Sulfate, total	mg/L	43.0	97.0	No Exceedance
G64L	PMP	Compliance	10/26/2023	D13R	Sulfate, total	mg/L	41.0	97.0	No Exceedance
G64L	PMP	Compliance	01/11/2023	D12	Total Dissolved Solids	mg/L	600	499	Confirmed
G64L	PMP	Compliance	05/15/2023	D12R	Total Dissolved Solids	mg/L	600	499	Confirmed
G64L	PMP	Compliance	07/27/2023	D13	Total Dissolved Solids	mg/L	600	499	Confirmed
G64L	PMP	Compliance	10/26/2023	D13R	Total Dissolved Solids	mg/L	540	499	Confirmed
G64S	UA	Compliance	01/11/2023	D12	Boron, total	mg/L	0.0190	0.0590	No Exceedance
G64S	UA	Compliance	05/11/2023	D12R	Boron, total	mg/L	0.0140 J+	0.0590	No Exceedance
G64S	UA	Compliance	07/25/2023	D13	Boron, total	mg/L	0.0150 J+	0.0590	No Exceedance
G64S	UA	Compliance	10/26/2023	D13R	Boron, total	mg/L	0.0130 J+	0.0590	No Exceedance
G64S	UA	Compliance	01/11/2023	D12	Calcium, total	mg/L	97.0	112	No Exceedance
G64S	UA	Compliance	05/11/2023	D12R	Calcium, total	mg/L	97.0	112	No Exceedance
G64S	UA	Compliance	07/25/2023	D13	Calcium, total	mg/L	100	112	No Exceedance
G64S	UA	Compliance	10/26/2023	D13R	Calcium, total	mg/L	98.0	112	No Exceedance
G64S	UA	Compliance	01/11/2023	D12	Chloride, total	mg/L	5.90 B	22.5	No Exceedance
G64S	UA	Compliance	05/11/2023	D12R	Chloride, total	mg/L	3.40	22.5	No Exceedance
G64S	UA	Compliance	07/25/2023	D13	Chloride, total	mg/L	3.20	22.5	No Exceedance
G64S	UA	Compliance	10/26/2023	D13R	Chloride, total	mg/L	4.10	22.5	No Exceedance
G64S	UA	Compliance	01/11/2023	D12	Fluoride, total	mg/L	0.272	0.564	No Exceedance
G64S	UA	Compliance	05/11/2023	D12R	Fluoride, total	mg/L	0.294	0.564	No Exceedance
G64S	UA	Compliance	07/25/2023	D13	Fluoride, total	mg/L	0.348 J+	0.564	No Exceedance
G64S	UA	Compliance	10/26/2023	D13R	Fluoride, total	mg/L	0.217	0.564	No Exceedance
G64S	UA	Compliance	01/11/2023	D12	pH (field)	SU	6.8	6.5/7.5	No Exceedance
G64S	UA	Compliance	05/11/2023	D12R	pH (field)	SU	6.9	6.5/7.5	No Exceedance
G64S	UA	Compliance	07/25/2023	D13	pH (field)	SU	6.8	6.5/7.5	No Exceedance
G64S	UA	Compliance	10/26/2023	D13R	pH (field)	SU	6.9	6.5/7.5	No Exceedance
G64S	UA	Compliance	01/11/2023	D12	Sulfate, total	mg/L	24.0	97.0	No Exceedance
G64S	UA	Compliance	05/11/2023	D12R	Sulfate, total	mg/L	23.0	97.0	No Exceedance
G64S	UA	Compliance	07/25/2023	D13	Sulfate, total	mg/L	25.0	97.0	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G64S	UA	Compliance	10/26/2023	D13R	Sulfate, total	mg/L	26.0	97.0	No Exceedance
G64S	UA	Compliance	01/11/2023	D12	Total Dissolved Solids	mg/L	490	499	No Exceedance
G64S	UA	Compliance	05/11/2023	D12R	Total Dissolved Solids	mg/L	450 J+	499	No Exceedance
G64S	UA	Compliance	07/25/2023	D13	Total Dissolved Solids	mg/L	800	499	Exceedance Not Confirmed
G64S	UA	Compliance	10/26/2023	D13R	Total Dissolved Solids	mg/L	440	499	No Exceedance

Notes:
HSU = hydrostratigraphic unit:
PMP = Potential Migration Pathway
UA = Uppermost Aquifer
ID = identification
mg/L = milligrams per liter
NA = not applicable
R = resample
Statistically Significant Increase (SSI) Type:
No Exceedance: No exceedance of the background.
Exceedance Not Confirmed: An exceedance was determined in the parent event, a resample was collected, and the resample did not confirm the exceedance.
Confirmed: An exceedance was determined with comparison to a resample. If a determined exceedance is confirmed by resample, both the sample and resample are noted as confirmed.

SU = Standard Units
B = The analyte was found in sample and in associated method blank.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

TABLE 3
STATISTICAL BACKGROUND VALUES
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Parameter	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Background Value (LPL/UPL)
Boron (mg/L)	12/02/2015 - 06/28/2017	24	25	Parametric UPL (log-transformed)	0.0590
Calcium (mg/L)	12/02/2015 - 06/28/2017	24	0	Parametric UPL	112
Chloride (mg/L)	12/02/2015 - 06/28/2017	24	0	Parametric UPL (log-transformed)	22.5
Fluoride (mg/L)	12/02/2015 - 06/28/2017	24	21	Non-parametric UPL	0.564
pH (field) (SU)	12/02/2015 - 06/28/2017	24	0	Parametric LPL/UPL	6.5/7.5
Sulfate (mg/L)	12/02/2015 - 06/28/2017	24	33	Non-parametric UPL	97.0
Total Dissolved Solids (mg/L)	12/02/2015 - 06/28/2017	24	0	Parametric UPL (log-transformed)	499

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

Generated 2024-01-14 01:41:43.185228 by banoffra

FIGURES



- BACKGROUND WELL
- COMPLIANCE WELL
- SOURCE SAMPLE LOCATION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- PROPERTY BOUNDARY

0 150 300
Feet

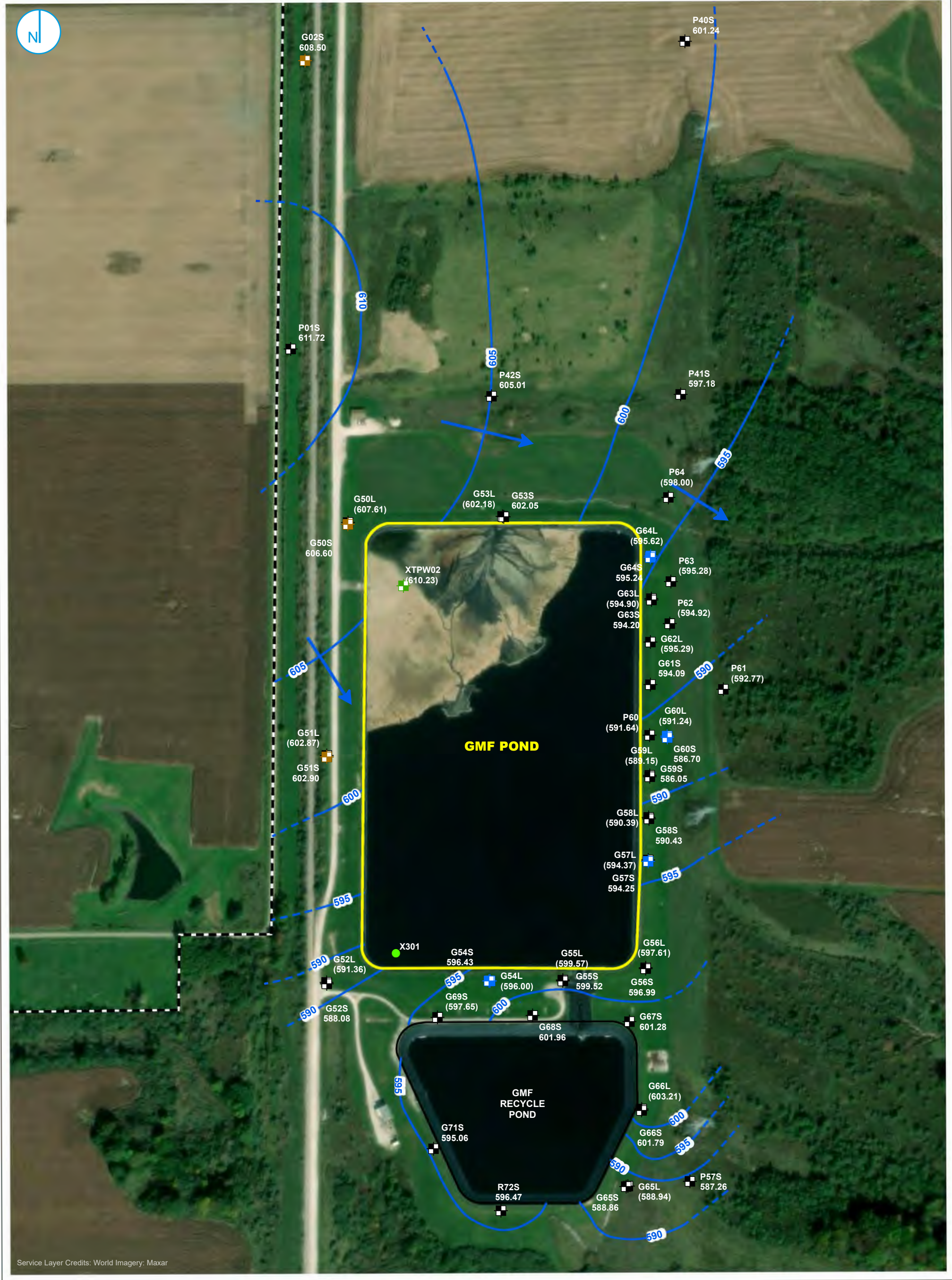
MONITORING WELL LOCATION MAP

FIGURE 1

2023 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
GMF POND
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.





COMPLIANCE WELL

BACKGROUND WELL

PORE WATER WELL

CCR SOURCE WATER SAMPLE

MONITORING WELL

REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

PROPERTY BOUNDARY

0

150

300

Feet

GROUNDWATER ELEVATION
CONTOUR (5-FT CONTOUR INTERVAL,
NAVD88)

INFERRED GROUNDWATER
ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

NOTES:

1. PARENTHESES INDICATES WELL NOT USED FOR CONTOURING

2.ELEVATION CONTOURS SHOWN IN FEET.

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

POTENTIOMETRIC SURFACE MAP
JANUARY 9 AND 16, 2023

2023 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
GMF POND
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 2

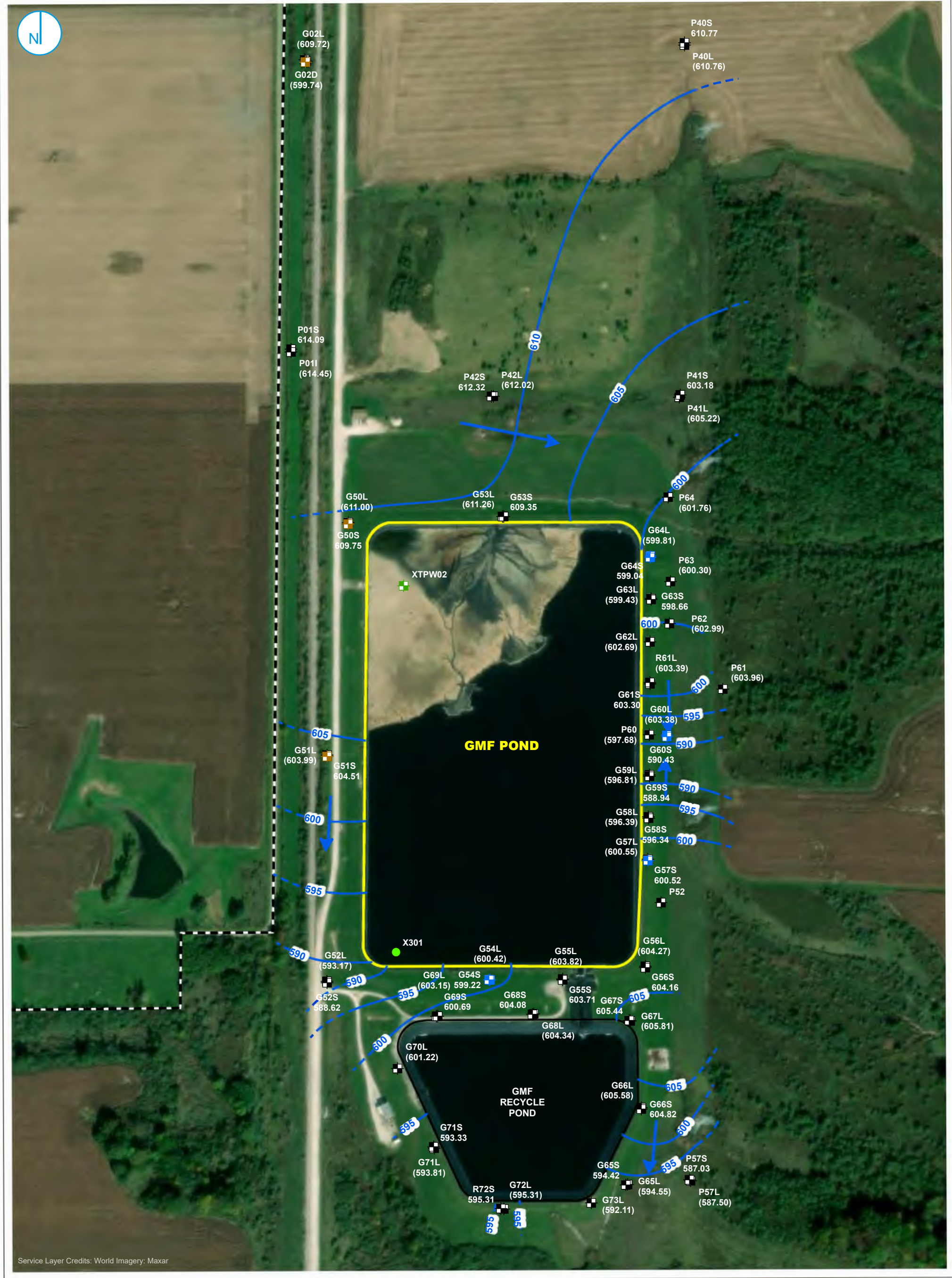
RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



POTENTIOMETRIC SURFACE MAP
MAY 8, 2023

FIGURE 3



COMPLIANCE MONITORING WELL

BACKGROUND MONITORING WELL

PORE WATER WELL

CCR SOURCE WATER SAMPLE

MONITORING WELL

GROUNDWATER ELEVATION

CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)

INFERRED GROUNDWATER

ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

PROPERTY BOUNDARY

NOTES:

1. PARENTHESES INDICATES WELL NOT USED FOR CONTOURING

2.ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN

VERTICAL DATUM OF 1988 (NAVD88)

0

150

300

Feet

POTENTIOMETRIC SURFACE MAP

JULY 17, 2023

2023 ANNUAL GROUNDWATER MONITORING

AND CORRECTIVE ACTION REPORT

GMF POND

DUCK CREEK POWER PLANT

CANTON, ILLINOIS

FIGURE 4

RAMBOLL AMERICAS

ENGINEERING SOLUTIONS, INC.

RAMBOLL



COMPLIANCE MONITORING WELL

BACKGROUND MONITORING WELL

PORE WATER WELL

CCR SOURCE WATER SAMPLE

MONITORING WELL

GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

0150300

Feet

NOTES:

1. PARENTHESES INDICATES WELL NOT USED FOR CONTOURING

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

POTENTIOMETRIC SURFACE MAP

OCTOBER 16 AND 18, 2023

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

GMF POND

DUCK CREEK POWER PLANT

CANTON, ILLINOIS

FIGURE 5

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

RAMBOLL

APPENDIX A

LABORATORY REPORTS AND FIELD DATA SHEETS



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

February 15, 2023

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

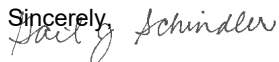
RE: GYPSUM G2

Dear Daryl Johnson:

Please find enclosed the analytical results for the **64** sample(s) the laboratory received on **1/11/23 4:30 pm** and logged in under work order **GA02056**. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

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

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

Sincerely,


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



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GA02056

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



Work Order GA02365

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



Work Order GA02681

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



Case Narrative

Dry Wells - G09L, G56L, G57L, G58L, G65L
G52S - pump does not work and is stuck in well
DTW below top of pump - G07L and P37L



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-257-203

Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651



ANALYTICAL RESULTS

Sample: GA02056-07
Name: G02S
Matrix: Ground Water - Grab

Sampled: 01/11/23 10:25
Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	< 5.0	mg/L	Q3	5	4.8	5.0	01/21/23 18:49	LAM	EPA 300.0 REV 2.1
Fluoride	0.320	mg/L		1	0.0400	0.250	01/21/23 17:55	LAM	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		1	0.18	1.0	01/21/23 17:55	LAM	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	12.9	Feet		1			01/11/23 10:25	FIELD	Field
Dissolved oxygen, Field	5.8	mg/L		1			01/11/23 10:25	FIELD	Field
Oxidation Reduction Potential	-107	mV		1	-1000	-500	01/11/23 10:25	FIELD	Field
pH, Field Measured	6.63	pH Units		1			01/11/23 10:25	FIELD	Field
Specific Conductance, Field Measured	800.0	umhos/cm		1			01/11/23 10:25	FIELD	Field
Temperature, Field Measured	11.2	°C		1			01/11/23 10:25	FIELD	Field
Turbidity, Field Measured	80.8	NTU		1	0.00	0.00	01/11/23 10:25	FIELD	Field
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	250	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Solids - total dissolved solids (TDS)	490	mg/L		1		26	01/13/23 15:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Boron	130	ug/L		5	7.1	10	01/19/23 12:54	JMW	EPA 6020A
Calcium	97	mg/L		5	0.089	0.20	01/19/23 12:54	JMW	EPA 6020A
Magnesium	36	mg/L		5	0.011	0.10	01/19/23 12:54	JMW	EPA 6020A
Potassium	1.0	mg/L	B	5	0.085	0.10	01/19/23 12:54	JMW	EPA 6020A
Sodium	14	mg/L		5	0.048	0.10	01/19/23 12:54	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02056-19
Name: G64S
Matrix: Ground Water - Grab

Sampled: 01/11/23 13:02

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	5.9	mg/L		5	4.8	5.0	01/21/23 16:43	LAM	EPA 300.0 REV 2.1
Sulfate	24	mg/L		5	0.91	5.0	01/21/23 16:43	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	27.7	Feet		1			01/11/23 13:02	FIELD	Field
Dissolved oxygen, Field	2.3	mg/L		1			01/11/23 13:02	FIELD	Field
Oxidation Reduction Potential	65.0	mV		1	-1000	-500	01/11/23 13:02	FIELD	Field
pH, Field Measured	6.77	pH Units		1			01/11/23 13:02	FIELD	Field
Specific Conductance, Field Measured	766.0	umhos/cm		1			01/11/23 13:02	FIELD	Field
Temperature, Field Measured	12.2	°C		1			01/11/23 13:02	FIELD	Field
Turbidity, Field Measured	< 0.00	NTU		1	0.00	0.00	01/11/23 13:02	FIELD	Field
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	240	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Fluoride	0.272	mg/L		1	0.0199	0.250	01/27/23 13:52	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	490	mg/L		1		26	01/13/23 15:45	CPS	SM 2540C
Total Metals - PIA									
Boron	19	ug/L		5	7.1	10	01/19/23 13:41	JMW	EPA 6020A
Calcium	97	mg/L		5	0.089	0.20	01/19/23 13:41	JMW	EPA 6020A
Magnesium	44	mg/L		5	0.011	0.10	01/19/23 13:41	JMW	EPA 6020A
Potassium	0.83	mg/L	B	5	0.085	0.10	01/19/23 13:41	JMW	EPA 6020A
Sodium	12	mg/L		5	0.048	0.10	01/19/23 13:41	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02056-20
Name: G64L
Matrix: Ground Water - Grab

Sampled: 01/11/23 13:27
Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	< 5.0	mg/L		5	4.8	5.0	01/21/23 23:03	LAM	EPA 300.0 REV 2.1
Fluoride	0.287	mg/L		1	0.0400	0.250	01/21/23 22:26	LAM	EPA 300.0 REV 2.1
Sulfate	33	mg/L		5	0.91	5.0	01/21/23 23:03	LAM	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	26.75	Feet		1			01/11/23 13:27	FIELD	Field
Dissolved oxygen, Field	0.60	mg/L		1			01/11/23 13:27	FIELD	Field
Oxidation Reduction Potential	54.0	mV		1	-1000	-500	01/11/23 13:27	FIELD	Field
pH, Field Measured	6.63	pH Units		1			01/11/23 13:27	FIELD	Field
Specific Conductance, Field Measured	942.0	umhos/cm		1			01/11/23 13:27	FIELD	Field
Temperature, Field Measured	12.8	°C		1			01/11/23 13:27	FIELD	Field
Turbidity, Field Measured	169	NTU		1	0.00	0.00	01/11/23 13:27	FIELD	Field
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	450	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	600	mg/L		1		26	01/13/23 15:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Boron	14	ug/L		5	7.1	10	01/19/23 13:44	JMW	EPA 6020A
Calcium	110	mg/L		5	0.089	0.20	01/19/23 13:44	JMW	EPA 6020A
Magnesium	62	mg/L		5	0.011	0.10	01/19/23 13:44	JMW	EPA 6020A
Potassium	1.1	mg/L	B	5	0.085	0.10	01/19/23 13:44	JMW	EPA 6020A
Sodium	7.6	mg/L		5	0.048	0.10	01/19/23 13:44	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02365-01
Name: G50S
Matrix: Ground Water - Grab

Sampled: 01/12/23 14:40
Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	11	mg/L	Q4	5	4.8	5.0	01/26/23 15:07	LAM	EPA 300.0 REV 2.1
Sulfate	38	mg/L	Q4	5	0.91	5.0	01/26/23 15:07	LAM	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	16.94	Feet		1			01/12/23 14:40	FIELD	Field
Dissolved oxygen, Field	3.8	mg/L		1			01/12/23 14:40	FIELD	Field
Oxidation Reduction Potential	81.0	mV		1	-1000	-500	01/12/23 14:40	FIELD	Field
pH, Field Measured	6.80	pH Units		1			01/12/23 14:40	FIELD	Field
Specific Conductance, Field Measured	671.0	umhos/cm		1			01/12/23 14:40	FIELD	Field
Temperature, Field Measured	10.5	°C		1			01/12/23 14:40	FIELD	Field
Turbidity, Field Measured	< 0.00	NTU		1	0.00	0.00	01/12/23 14:40	FIELD	Field
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	190	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Fluoride	0.259	mg/L		1	0.0199	0.250	01/27/23 13:54	ANK	SM 4500F C 1997
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	410	mg/L		1		26	01/18/23 12:23	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Boron	17	ug/L		5	7.1	10	01/19/23 13:48	JMW	EPA 6020A
Calcium	87	mg/L		5	0.089	0.20	01/19/23 13:48	JMW	EPA 6020A
Magnesium	35	mg/L		5	0.011	0.10	01/19/23 13:48	JMW	EPA 6020A
Potassium	0.60	mg/L	B	5	0.085	0.10	01/19/23 13:48	JMW	EPA 6020A
Sodium	9.2	mg/L		5	0.048	0.10	01/19/23 13:48	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02365-03
Name: G51S
Matrix: Ground Water - Grab

Sampled: 01/12/23 15:23
Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	13	mg/L	Q4	10	9.6	10	01/26/23 16:56	LAM	EPA 300.0 REV 2.1
Sulfate	51	mg/L	Q4	10	1.8	10	01/26/23 16:56	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	16.69	Feet		1			01/12/23 15:23	FIELD	Field
Dissolved oxygen, Field	2.5	mg/L		1			01/12/23 15:23	FIELD	Field
Oxidation Reduction Potential	102	mV		1	-1000	-500	01/12/23 15:23	FIELD	Field
pH, Field Measured	6.42	pH Units		1			01/12/23 15:23	FIELD	Field
Specific Conductance, Field Measured	1006	umhos/cm		1			01/12/23 15:23	FIELD	Field
Temperature, Field Measured	11.5	°C		1			01/12/23 15:23	FIELD	Field
Turbidity, Field Measured	< 0.00	NTU		1	0.00	0.00	01/12/23 15:23	FIELD	Field
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	160	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Fluoride	< 0.250	mg/L		1	0.0199	0.250	01/27/23 13:56	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	440	mg/L		1		26	01/18/23 12:23	CPS	SM 2540C
Total Metals - PIA									
Boron	12	ug/L		5	7.1	10	01/19/23 13:52	JMW	EPA 6020A
Calcium	94	mg/L		5	0.089	0.20	01/19/23 13:52	JMW	EPA 6020A
Magnesium	39	mg/L		5	0.011	0.10	01/19/23 13:52	JMW	EPA 6020A
Potassium	0.56	mg/L	B	5	0.085	0.10	01/19/23 13:52	JMW	EPA 6020A
Sodium	7.5	mg/L		5	0.048	0.10	01/19/23 13:52	JMW	EPA 6020A



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

ANALYTICAL RESULTS

Sample: GA02365-06
Name: G57S
Matrix: Ground Water - Grab

Sampled: 01/12/23 11:22

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	18	mg/L	Q4	5	4.8	5.0	01/26/23 18:08	LAM	EPA 300.0 REV 2.1
Sulfate	49	mg/L	Q4	25	4.6	25	01/26/23 18:26	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	28.58	Feet		1			01/12/23 11:22	FIELD	Field
Dissolved oxygen, Field	4.0	mg/L		1			01/12/23 11:22	FIELD	Field
Oxidation Reduction Potential	208	mV		1	-1000	-500	01/12/23 11:22	FIELD	Field
pH, Field Measured	6.74	pH Units		1			01/12/23 11:22	FIELD	Field
Specific Conductance, Field Measured	1016	umhos/cm		1			01/12/23 11:22	FIELD	Field
Temperature, Field Measured	9.2	°C		1			01/12/23 11:22	FIELD	Field
Turbidity, Field Measured	< 0.00	NTU		1	0.00	0.00	01/12/23 11:22	FIELD	Field
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	420	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Fluoride	0.279	mg/L		1	0.0199	0.250	01/27/23 13:58	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	780	mg/L		1		26	01/18/23 12:23	CPS	SM 2540C
Total Metals - PIA									
Boron	< 10	ug/L		5	7.1	10	01/19/23 13:55	JMW	EPA 6020A
Calcium	160	mg/L		5	0.089	0.20	01/19/23 13:55	JMW	EPA 6020A
Magnesium	90	mg/L		5	0.011	0.10	01/19/23 13:55	JMW	EPA 6020A
Potassium	0.60	mg/L	B	5	0.085	0.10	01/19/23 13:55	JMW	EPA 6020A
Sodium	12	mg/L		5	0.048	0.10	01/19/23 13:55	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02365-08
Name: G60L
Matrix: Ground Water - Grab

Sampled: 01/12/23 12:48
Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	15	mg/L		5	4.8	5.0	01/26/23 18:12	LAM	EPA 300.0 REV 2.1
Sulfate	150	mg/L		50	9.1	50	01/26/23 18:30	LAM	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	24.05	Feet		1			01/12/23 12:48	FIELD	Field
Dissolved oxygen, Field	0.84	mg/L		1			01/12/23 12:48	FIELD	Field
Oxidation Reduction Potential	155	mV		1	-1000	-500	01/12/23 12:48	FIELD	Field
pH, Field Measured	5.90	pH Units		1			01/12/23 12:48	FIELD	Field
Specific Conductance, Field Measured	993.0	umhos/cm		1			01/12/23 12:48	FIELD	Field
Temperature, Field Measured	10.2	°C		1			01/12/23 12:48	FIELD	Field
Turbidity, Field Measured	2.40	NTU		1	0.00	0.00	01/12/23 12:48	FIELD	Field
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	200	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Fluoride	< 0.250	mg/L		1	0.0199	0.250	01/27/23 14:00	ANK	SM 4500F C 1997
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	630	mg/L		1		26	01/18/23 12:23	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Boron	28	ug/L		5	7.1	10	01/19/23 13:59	JMW	EPA 6020A
Calcium	110	mg/L		5	0.089	0.20	01/19/23 13:59	JMW	EPA 6020A
Magnesium	46	mg/L		5	0.011	0.10	01/19/23 13:59	JMW	EPA 6020A
Potassium	0.70	mg/L	B	5	0.085	0.10	01/19/23 13:59	JMW	EPA 6020A
Sodium	38	mg/L		5	0.048	0.10	01/19/23 13:59	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02365-09
Name: G60S
Matrix: Ground Water - Grab

Sampled: 01/12/23 13:38
Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	8.4	mg/L		1	0.96	1.0	01/26/23 19:24	LAM	EPA 300.0 REV 2.1
Sulfate	69	mg/L		10	1.8	10	01/26/23 19:42	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	28.4	Feet		1			01/12/23 13:38	FIELD	Field
Dissolved oxygen, Field	6.9	mg/L		1			01/12/23 13:38	FIELD	Field
Oxidation Reduction Potential	112	mV		1	-1000	-500	01/12/23 13:38	FIELD	Field
pH, Field Measured	6.65	pH Units		1			01/12/23 13:38	FIELD	Field
Specific Conductance, Field Measured	990.0	umhos/cm		1			01/12/23 13:38	FIELD	Field
Temperature, Field Measured	10.8	°C		1			01/12/23 13:38	FIELD	Field
Turbidity, Field Measured	218	NTU		1	0.00	0.00	01/12/23 13:38	FIELD	Field
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	280	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Fluoride	< 0.250	mg/L		1	0.0199	0.250	01/27/23 14:02	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	620	mg/L		1		26	01/18/23 12:23	CPS	SM 2540C
Total Metals - PIA									
Boron	21	ug/L		5	7.1	10	01/19/23 14:02	JMW	EPA 6020A
Calcium	170	mg/L		5	0.089	0.20	01/19/23 14:02	JMW	EPA 6020A
Magnesium	71	mg/L		5	0.011	0.10	01/19/23 14:02	JMW	EPA 6020A
Potassium	2.3	mg/L	B	5	0.085	0.10	01/19/23 14:02	JMW	EPA 6020A
Sodium	13	mg/L		5	0.048	0.10	01/19/23 14:02	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02681-06
Name: G54L
Matrix: Ground Water - Grab

Sampled: 01/16/23 12:59
Received: 01/16/23 15:51

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	29	mg/L		10	9.6	10	02/01/23 05:57	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		1	0.0400	0.250	02/01/23 05:38	CRD	EPA 300.0 REV 2.1
Sulfate	87	mg/L		10	1.8	10	02/01/23 05:57	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26.35	Feet		1			01/16/23 12:54	FIELD	Field
Dissolved oxygen, Field	4.0	mg/L		1			01/16/23 12:54	FIELD	Field
Oxidation Reduction Potential	-27.0	mV		1	-1000	-500	01/16/23 12:54	FIELD	Field
pH, Field Measured	6.89	pH Units		1			01/16/23 12:54	FIELD	Field
Specific Conductance, Field Measured	1380	umhos/cm		1			01/16/23 12:54	FIELD	Field
Temperature, Field Measured	11.8	°C		1			01/16/23 12:54	FIELD	Field
Turbidity, Field Measured	65.5	NTU		1	0.00	0.00	01/16/23 12:54	FIELD	Field
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	440	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	900	mg/L		1		26	01/20/23 17:17	CPS	SM 2540C
Total Metals - PIA									
Boron	12	ug/L		5	7.1	10	01/20/23 11:14	JMW	EPA 6020A
Calcium	170	mg/L		5	0.089	0.20	01/20/23 11:14	JMW	EPA 6020A
Magnesium	88	mg/L		5	0.011	0.10	01/20/23 11:14	JMW	EPA 6020A
Potassium	0.45	mg/L		5	0.085	0.10	01/20/23 11:14	JMW	EPA 6020A
Sodium	13	mg/L		5	0.048	0.10	01/20/23 11:14	JMW	EPA 6020A



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

ANALYTICAL RESULTS

Sample: GA02681-07
Name: G54S
Matrix: Ground Water - Grab

Sampled: 01/16/23 13:55

Received: 01/16/23 15:51

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	3.7	mg/L		1	0.96	1.0	02/01/23 06:16	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		1	0.0400	0.250	02/01/23 06:16	CRD	EPA 300.0 REV 2.1
Sulfate	30	mg/L		10	1.8	10	02/01/23 06:34	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26.02	Feet		1			01/16/23 13:55	FIELD	Field
Dissolved oxygen, Field	6.2	mg/L		1			01/16/23 13:55	FIELD	Field
Oxidation Reduction Potential	-65.0	mV		1	-1000	-500	01/16/23 13:55	FIELD	Field
pH, Field Measured	6.92	pH Units		1			01/16/23 13:55	FIELD	Field
Specific Conductance, Field Measured	947.0	umhos/cm		1			01/16/23 13:55	FIELD	Field
Temperature, Field Measured	12.0	°C		1			01/16/23 13:55	FIELD	Field
Turbidity, Field Measured	53.8	NTU		1	0.00	0.00	01/16/23 13:55	FIELD	Field
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	280	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		1		2.0	01/17/23 10:08	HRF	SM 2320B 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	580	mg/L		1		26	01/20/23 17:17	CPS	SM 2540C
Total Metals - PIA									
Boron	31	ug/L		5	7.1	10	01/20/23 11:18	JMW	EPA 6020A
Calcium	120	mg/L		5	0.089	0.20	01/20/23 11:18	JMW	EPA 6020A
Magnesium	50	mg/L		5	0.011	0.10	01/20/23 11:18	JMW	EPA 6020A
Potassium	0.82	mg/L		5	0.085	0.10	01/20/23 11:18	JMW	EPA 6020A
Sodium	9.6	mg/L		5	0.048	0.10	01/20/23 11:18	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02681-18
Name: X301
Matrix: Ground Water - Grab

Sampled: 01/16/23 10:23

Received: 01/16/23 15:51

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	420	mg/L		100	96	100	01/27/23 19:29	CRD	EPA 300.0 REV 2.1
Sulfate	910	mg/L		100	18	100	01/27/23 19:29	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Dissolved oxygen, Field	3.1	mg/L		1			01/16/23 10:23	FIELD	Field
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	460	mg/L		1		10	01/24/23 09:55	HRF	SM 2320B 1997
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		1		10	01/24/23 09:55	HRF	SM 2320B 1997
<u>Total Metals - PIA</u>									
Calcium	430	mg/L		5	0.089	0.20	01/30/23 12:48	JMW	EPA 6020A
Magnesium	260	mg/L		5	0.011	0.10	01/30/23 12:48	JMW	EPA 6020A
Potassium	7.3	mg/L		5	0.085	0.10	01/30/23 12:48	JMW	EPA 6020A
Sodium	56	mg/L		5	0.048	0.10	01/30/23 12:48	JMW	EPA 6020A



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B323147 - No Prep - SM 2540C</u>									
Blank (B323147-BLK1)				Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B323147-BS1)				Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	997	mg/L		1000		100	84.9-109		
Solids - total dissolved solids (TDS)	997	mg/L		1000		100	84.9-109		
Duplicate (B323147-DUP1)				Sample: GA02056-07 Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	505	mg/L			490			3	5
Solids - total dissolved solids (TDS)	505	mg/L			490			3	5
<u>Batch B323330 - SW 3015 - EPA 6020A</u>									
Blank (B323330-BLK1)				Prepared: 01/17/23 Analyzed: 01/19/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	0.256	mg/L	B						
Sodium	0.312	mg/L	Ba						
LCS (B323330-BS1)				Prepared: 01/17/23 Analyzed: 01/19/23					
Boron	507	ug/L		555.6		91	80-120		
Calcium	5.43	mg/L		5.556		98	80-120		
Magnesium	5.63	mg/L		5.556		101	80-120		
Potassium	6.06	mg/L		5.556		109	80-120		
Sodium	5.69	mg/L		5.556		102	80-120		
<u>Batch B323462 - No Prep - SM 2540C</u>									
Blank (B323462-BLK1)				Prepared & Analyzed: 01/18/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B323462-BS1)				Prepared & Analyzed: 01/18/23					
Solids - total dissolved solids (TDS)	967	mg/L		1000		97	84.9-109		
<u>Batch B323514 - No Prep - SM 2540C</u>									
Blank (B323514-BLK1)				Prepared: 01/18/23 Analyzed: 01/20/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B323514-BS1)				Prepared: 01/18/23 Analyzed: 01/20/23					
Solids - total dissolved solids (TDS)	1020	mg/L		1000		102	84.9-109		
<u>Batch B323535 - No Prep - SM 2320B 1997</u>									
Duplicate (B323535-DUP4)				Sample: GA02056-19 Prepared & Analyzed: 01/17/23					
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L			ND				10
Duplicate (B323535-DUP5)				Sample: GA02365-08 Prepared & Analyzed: 01/17/23					
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L			ND				10
<u>Batch B323536 - No Prep - SM 2320B 1997</u>									
Duplicate (B323536-DUP4)				Sample: GA02056-19 Prepared & Analyzed: 01/17/23					
Alkalinity - bicarbonate as CaCO ₃	238	mg/L			238			0	10



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B323536-DUP5) Sample: GA02365-08 Prepared & Analyzed: 01/17/23									
Alkalinity - bicarbonate as CaCO ₃	188	mg/L			200			6	10
Batch B323566 - SW 3015 - EPA 6020A									
Blank (B323566-BLK1) Prepared: 01/19/23 Analyzed: 01/20/23									
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B323566-BS1) Prepared: 01/19/23 Analyzed: 01/20/23									
Boron	512	ug/L		555.6		92	80-120		
Calcium	5.44	mg/L		5.556		98	80-120		
Magnesium	5.47	mg/L		5.556		98	80-120		
Potassium	5.46	mg/L		5.556		98	80-120		
Sodium	5.36	mg/L		5.556		97	80-120		
Batch B323809 - SW 3015 - EPA 6020A									
Blank (B323809-BLK1) Prepared: 01/23/23 Analyzed: 01/30/23									
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B323809-BS1) Prepared: 01/23/23 Analyzed: 01/30/23									
Calcium	5.62	mg/L		5.556		101	80-120		
Magnesium	5.70	mg/L		5.556		103	80-120		
Potassium	5.44	mg/L		5.556		98	80-120		
Sodium	5.51	mg/L		5.556		99	80-120		
Batch B323851 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B323851-CCB1) Prepared & Analyzed: 01/21/23									
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Fluoride	0.00	mg/L							
Calibration Check (B323851-CCV1) Prepared & Analyzed: 01/21/23									
Sulfate	4.82	mg/L		5.000		96	90-110		
Fluoride	5.11	mg/L		5.000		102	90-110		
Chloride	4.79	mg/L		5.000		96	90-110		
Matrix Spike (B323851-MS1) Sample: GA02056-07 Prepared & Analyzed: 01/21/23									
Fluoride	1.73	mg/L		1.500	0.320	94	80-120		
Sulfate	1.53	mg/L		1.500	ND	102	80-120		
Chloride	1.6	mg/L	Q1	1.500	4.2	NR	80-120		
Matrix Spike Dup (B323851-MSD1) Sample: GA02056-07 Prepared & Analyzed: 01/21/23									
Sulfate	1.54	mg/L		1.500	ND	102	80-120	0.3	20
Fluoride	1.72	mg/L		1.500	0.320	94	80-120	0.2	20
Chloride	3.1	mg/L	Q2	1.500	4.2	NR	80-120		20
Batch B323852 - IC No Prep - EPA 300.0 REV 2.1									



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B323852-CCB1)				Prepared & Analyzed: 01/21/23					
Chloride	0.848	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B323852-CCV1)				Prepared & Analyzed: 01/21/23					
Sulfate	4.77	mg/L		5.000		95	90-110		
Chloride	4.65	mg/L		5.000		93	90-110		
<u>Batch B324206 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324206-CCB1)				Prepared & Analyzed: 01/26/23					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B324206-CCV1)				Prepared & Analyzed: 01/26/23					
Chloride	5.00	mg/L		5.000		100	90-110		
Sulfate	5.02	mg/L		5.000		100	90-110		
Matrix Spike (B324206-MS1)				Sample: GA02365-01		Prepared & Analyzed: 01/26/23			
Sulfate	1.00E9	mg/L	Q4	1.500	37.7	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	11	NR	80-120		
Matrix Spike (B324206-MS2)				Sample: GA02365-03		Prepared & Analyzed: 01/26/23			
Sulfate	1.00E9	mg/L	Q4	1.500	51.5	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	13	NR	80-120		
Matrix Spike Dup (B324206-MSD1)				Sample: GA02365-01		Prepared & Analyzed: 01/26/23			
Chloride	1.0E9	mg/L	Q4	1.500	11	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	37.7	NR	80-120	0	20
Matrix Spike Dup (B324206-MSD2)				Sample: GA02365-03		Prepared & Analyzed: 01/26/23			
Chloride	1.0E9	mg/L	Q4	1.500	13	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	51.5	NR	80-120	0	20
<u>Batch B324210 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324210-CCB1)				Prepared & Analyzed: 01/26/23					
Sulfate	0.00	mg/L							
Chloride	0.503	mg/L							
Calibration Check (B324210-CCV1)				Prepared & Analyzed: 01/26/23					
Chloride	4.83	mg/L		5.000		97	90-110		
Sulfate	4.96	mg/L		5.000		99	90-110		
<u>Batch B324437 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324437-CCB1)				Prepared & Analyzed: 01/27/23					
Sulfate	0.00	mg/L							
Chloride	0.0875	mg/L							
Calibration Check (B324437-CCV1)				Prepared & Analyzed: 01/27/23					
Sulfate	5.05	mg/L		5.000		101	90-110		
Chloride	5.00	mg/L		5.000		100	90-110		
<u>Batch B324535 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324535-CCB1)				Prepared & Analyzed: 01/31/23					
Chloride	0.899	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Check (B324535-CCV1)				Prepared & Analyzed: 01/31/23					
Chloride	4.74	mg/L		5.000		95	90-110		
Sulfate	4.87	mg/L		5.000		97	90-110		
Fluoride	5.06	mg/L		5.000		101	90-110		



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

NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

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

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

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

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

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

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

USEPA DMR-QA Program

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

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

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

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

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

Qualifiers

- B Present in the method blank at 256 ug/L.
- Ba Present in the method blank at 312 ug/L.
- Q1 Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q2 Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q3 Matrix Spike/Matrix Spike Duplicate both failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Gail Schindler

Certified by: Gail Schindler, Project Manager



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

Page: 1 of 7

(LA) for Joseph Reed
 1/10/23
 PRINT Name of SAMPLER: Lindsey Hord/Seward
 DATE Signed (MM/DD/YY) 1/11/23
 SIGNATURE of SAMPLER: [Signature]
 1-11-23
 16:30

BA02056-20

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:	Vistra Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey
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
Phone:	(217) 753-8911	Project Name:		Quote Reference:	
Fax:		Requested Due Date/TAT:	10 day	Project Manager:	
		Project Number:	2265	Profile #:	

Page: 2 of 7

ITEM #	Section D Required Client Information		Valid Matrix Codes		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↑	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
	Section D Required Client Information	Valid Matrix Codes	MATRIX CODE	SAMPLE TYPE			DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	DC_257_203	DC_257_204		DC_257_205	DC_611_204	DC_CLOSURE_201-202	DC_WPCF_203-206	DC_645_201-202							
1	G12S																																
2	G15S																																
3	G50L																																
4	G50S																																
5	G51L																																
6	G51S																																
7	G52L																																
8	G52S																																
9	G53L																																
10	G53S																																
11	G54L																																
12	G54S																																
13	G55L																																
14	G55S																																
15	G56L																																
16	G56S																																

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
DC-Q1-2023 Rev 3			1/11/23	14:25		1/11/23	14:25	Temp in °C	0.8
								Received on	1-11-23
								Sealed Cooler	16:30
								Samples Int.	

24 for Joseph Reed 1/11/23

Signature: *[Signature]* DATE Signed: 1/11/23

Signature of Sampler: *[Signature]* PRINT Name of Sampler: *[Signature]*

GA02056-20

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Visira Corp Address: 13468 E. 900th St Email To: Brian.Voelker@VisiraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Jason Stuckey Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Jason Stuckey Company Name: Visira Corp Address: see Section A Quote Reference: Project Manager: Profile #		Regulatory Agency NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location IL STATE:		Page: 3 of 7
---	--	--	--	---	--	---	--	----------------------------

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE GROUNDWATER WATER WASTE WATER PRODUCT SEDIMENT OIL SLUDGE AIR OTHER TISSE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Y/N	Requested Analysis Filtered (Y/N)						Project No./ Lab I.D.
					DATE	TIME											
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	

ADDITIONAL COMMENTS DC-Q1-2023 Rev 3		RELINQUISHED BY / AFFILIATION DATE 1/11/23 TIME 16:25	ACCEPTED BY / AFFILIATION DATE 1/11/23 TIME 16:30	SAMPLE CONDITIONS Temp in °C 018 Received on Y Custody N Sealed Cooler Y Samples intact Y
---	--	---	---	--

PRINT Name of SAMPLER: **Lindsey Hawksworth**
 SIGNATURE of SAMPLER:
 DATE Signed (mm/dd/yyyy): **1/11/23**
 DATE: **1-11-23**
 TIME: **16:30**

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

Page: 4 of 7

SAMPLER NAME AND SIGNATURE			
PRINT NAME OF SAMPLER:	<i>Lindsay Hardscastle</i>	DATE SIGNED (MM/DD/YY):	<i>1/11/23</i>
SIGNATURE OF SAMPLER:	<i>[Signature]</i>		

for
Joseph Reed
1/10/23

1-11-23
16:30

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

Page: 5 of 7[illegible]

①4 for Joseph need
1/12/23 1-11-23 16:30

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

Page: 6 of 7

SAMPLER NAME AND SIGNATURE	
PRINT NAME of SAMPLER:	Wendy Harris
SIGNATURE of SAMPLER:	
DATE Signed (MM/DD/YYYY):	11/11/11

LM for Joseph Wood
1/2/23

GA02365-026 8AB

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:	Visira Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey
Address:	13498 E. 900th St	Copy To:	Jason Stuckey	Company Name:	Visira Corp
Email To:	Brian.Voelker@VisiraCorp.com	Purchase Order No.:		Address:	see Section A
Phone:	(217) 753-8911	Project Name:		Quote Reference:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Project Manager:	
				Profile #:	

Page: 2 of 7

Section D Required Client Information		Section E Requested Analysis Filtered (Y/N)	
Valid Matrix Codes	Matrix Code	Requested Analysis Filtered (Y/N)	Requested Analysis Filtered (Y/N)
DRINKING WATER WASTE WATER PRODUCT GAS OIL WTE AIR OTHER TISSE	OW WT WW SL SA CA WP AP OT TS		

ITEM #	MATRIX CODE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on	Custody	Sealed Cooler	Sample Int.
1	G12S																
2	G15S																
3	G50L																
4	G50S	WTG 1/12/23	1440		4	X	HNO ₃	DC 257_203									
5	G51L	WTG 1/12/23	1548		4	X	HNO ₃	DC 257_204									
6	G51S	WTG 1/12/23	1523		2	X	HNO ₃	DC 257_205									
7	G52L	WTG 1/12/23	1552		0		HNO ₃	DC 811_204									
8	G52S						HNO ₃	DC 257_206									
9	G53L						HNO ₃	DC 845_201-202									
10	G53S						HNO ₃										
11	G54L						HNO ₃										
12	G54S						HNO ₃										
13	G55L						HNO ₃										
14	G55S						HNO ₃										
15	G56L	WTG 1/12/23	1045		0		HNO ₃										
16	G56S						HNO ₃										

Section F Additional Comments		Section G Relinquished By / Affiliation		Section H Date / Time	
DC-Q1-2023 Rev 3				1/12/23 12:23	

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YYYY)	
PRINT Name of SAMPLER:		01/12/23	
SIGNATURE of SAMPLER:			

GA-02365

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Vistra Corp Address: 13489 E. 900th St Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-4911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Jason Stuckey Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Jason Stuckey Company Name: Vistra Corp Address: see Section A Quote Reference: Project Manager: Profile A:		Regulatory Agency NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location IL STATE:		Page: 3 of 7											
Section D Requested Client Information <div style="display: flex; justify-content: space-between;"> <div> SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE </div> <div> Valid Matrix Codes MATRIX: <input type="checkbox"/> DW, <input type="checkbox"/> WT, <input type="checkbox"/> WWT, <input type="checkbox"/> P, <input type="checkbox"/> SL, <input type="checkbox"/> OL, <input type="checkbox"/> WP, <input type="checkbox"/> AR, <input type="checkbox"/> TS SUBSTRATE: <input type="checkbox"/> OIL, <input type="checkbox"/> WIFE, <input type="checkbox"/> AIR, <input type="checkbox"/> OTHER, <input type="checkbox"/> TISSUE </div> </div>										MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAV D=COMP) COLLECTED DATE TIME SAMPLE TEMP AT COLLECTION # OF CONTAINERS Preservatives: <input type="checkbox"/> Unpreserved, <input type="checkbox"/> H ₂ O ₂ , <input type="checkbox"/> HNO ₃ , <input type="checkbox"/> HCl, <input type="checkbox"/> NaOH, <input type="checkbox"/> Na ₂ S ₂ O ₃ , <input type="checkbox"/> Methanol, <input type="checkbox"/> Other		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.					
1	G57L	WTG	1/12/23	1051	0														
2	G57S	WTG	1/12/23	1122	4	X													
3	G58L																		
4	G58S																		
5	G59L	WTG	1/12/23	1140	2	X													
6	G59S																		
7	G60L	WTG	1/12/23	1248	4	X													
8	G60S	WTG	1/12/23	1338	4	X													
9	G61S																		
10	G62L	WTG	1/12/23	1319	2	X													
11	G63L	WTG	1/12/23	1356	2	X													
12	G63S																		
13	G64L																		
14	G64S																		
15	G65L	WTG	1/12/23	1020	0														
16	G65S	WTG	1/12/23	1039	2	X													
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS					
DC-Q1-2023 Rev 3				1/12/23		1122													
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Jason Rembert SIGNATURE of SAMPLER: <i>[Signature]</i> DATE Signed (MANDATORY): 01/12/23										Temp in °C 1.7		Received on 1/13/23		Custody Sealed Cooler (Y/N) N Sample Intact (Y/N) N					

[Signature] 1/13/23 7:15am

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

Page: 4 of 7

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
DC-Q1-2023 Rev 3			1/20/23	1722					Temp in °C	Received on Ice (Y/N)	Custody Sealed/ Cooler (Y/N)	Samples Intact (Y/N)
								1.7	✓	✓	✓	✓
SAMPLER NAME AND SIGNATURE												
PRINT Name of SAMPLER:		Adam Robertson										
SIGNATURE of SAMPLER:												
DATE Signed (MM/DD/YYYY):		01/12/23										

1-1323 7:15am

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

Ernst 1-13-23 7:15am

GA-02365-26
8AB

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 6 of 7

Section A Required Client Information:

Company: **Visira Corp**
Address: **13488 E. 800th St**
Email To: **Brian.Voelker@VisiraCorp.com**
Phone: **(217) 753-8911** Fax:
Requested Due Date/TAT: **10 day**

Section B Required Project Information:

Report To: **Brian Voelker**
Copy To: **Jason Stuckey**
Purchase Order No.:
Project Name:
Project Number: **2285**

Section C Invoice Information:

Attention: **Jason Stuckey**
Company Name: **Visira Corp**
Address: **see Section A**
Quote Reference:
Project Manager:
Profile #:

REGULATORY AGENCY

NPDES
GROUND WATER
RCRA
UST
DRINKING WATER
OTHER

Site Location
STATE: **IL**

ITEM #	Valid Matrix Codes MATRIX CODE GROUND WATER WASTE WATER WASTE WATER PRODUCT SOIL/SOLID OIL SLURRY WASTE OTHER TISSE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB O-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↓	Requested Analysis Filtered (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	OR05D																			
2	OR06A																			
3	• OR11			1/12/23	1425		5	X												
4	• OR13D			1/12/23	1424		5	X												
5	• OR13S			1/12/23	1121		5	X												
6	• OR14D			1/12/23	1220		5	X												
7	OR14S																			
8	OR18																			
9	• OR19			1/12/23	1434		5	X												
10	• OR20			1/12/23	1455		5	X												
11	P38L																			
12	P37L																			
13	R10L																			
14	• R81L			1/12/23	1303		2	X												
15	• R72S			1/12/23	1012		2	X												
16	T43L																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS			
	SIGNATURE	PRINT NAME	SIGNATURE	PRINT NAME	SIGNATURE	PRINT NAME	SIGNATURE	PRINT NAME	SIGNATURE	PRINT NAME	SIGNATURE	PRINT NAME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Analyzed (Y/N)
DC-Q1-2023 Rev 3													1.7	✓	2	✓
	<p>DATE SIGNED (MM/DD/YY): 1/12/23</p> <p>DATE SIGNED (MM/DD/YY): 1/12/23</p> <p>1-13.23 7:15am</p>															

GA02681
VMW 1-17-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey
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
Phone:	(217) 753-8911	Project Name:		Quote Reference:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Project Manager:	
				Profile #:	

Page: 1 of 7

Section D Required Client Information		Section E Requested Analysis Filtered (Y/N)	
Valid Matrix Codes MATRIX CODE GROUNDWATER DW WATER WT WASTE WATER WW PRODUCT P SOLIDWASTE SL WASTE WATER VPE AIR AS OTHER OT TSS TS		Requested Analysis Filtered (Y/N)	
SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		Requested Analysis Filtered (Y/N)	

ITEM #	MATRIX CODE	SAMPLE TYPE (G-GRAB C-COMP)	DATE	TIME	COLLECTED	# OF CONTAINERS	Preservatives	Analysis Test ↑	DATE	TIME	DATE	TIME	Temp in °C	Received on	Custody	Sealed Cooler	Samples Intact
1	BA01																
2	BA02																
3	BA02L																
4	BA03																
5	BA03L																
6	BA04																
7	BA05																
8	BA06																
9	G02S																
10	G04S																
11	G06L																
12	G06S																
13	G07L																
14	G08L																
15	G09L																
16	G09S																

Section F Additional Comments		Section G Relinquished By / Affiliation		Section H Accepted By / Affiliation		Section I Sample Conditions	
DC-Q1-2023 Rev 3		1/16/23 1551		1/16/23 1551		Temp in °C	
						Received on	
						Custody	
						Sealed Cooler	
						Samples Intact	

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

Page: 2 of 7Requested Analysis Filtered (Y/N)

AMPLE CONDITIONS

GA02681
VNU 1-17-23

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-257-203

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Visira Corp Address: 13498 E. 900th St Email To: Brian.Voelker@VisiraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Jason Stuckey Copy To: Jason Stuckey Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Jason Stuckey Company Name: Visira Corp Address: see Section A Quote Reference: Project Manager: Profile #:		Page: 4 of 7											
REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RORA OTHER Site Location: IL STATE:																	
Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTE WATER PRODUCT P SOLID WASTE SW AIR AS OTHER OT TISSUE TS		SAMPLE TYPE (G-GRAB C-COMP) MATRIX CODE (non valid codes to left)		COLLECTED DATE TIME		SAMPLE TEMP AT COLLECTION # OF CONTAINERS		Preservatives H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other		Analysis Test Y/N		Requested Analysis Filtered (Y/N)		Project No./Lab I.D.	
1	G66L																
2	G66S																
3	G67L																
4	G67S																
5	G70L																
6	G71L																
7	G71S																
8	G72L																
9	G73L																
10	OM01																
11	OM04S																
12	OM05S																
13	OM07																
14	OM08																
15	OM09																
16	OM10																
ADDITIONAL COMMENTS DC-Q1-2023 Rev 3		RELINQUISHED BY / AFFILIATION DATE TIME 1/16/23 1551		ACCEPTED BY / AFFILIATION DATE TIME 1/16/23 1551		SAMPLE CONDITIONS Received on Ice (Y/N) <input checked="" type="checkbox"/> Cleanbody Sealed Cooler (Y/N) <input checked="" type="checkbox"/> Samples Intact (Y/N) <input checked="" type="checkbox"/>											
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:		SIGNATURE: <i>Jason Stuckey</i> DATE Signed (MM/DD/YYYY): 01/16/23															

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

37

GA02681-
Vmw 1-17-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 7 of 7

Section A Required Client Information:

Company: **Vistra Corp**
 Address: **13498 E. 900th St**
 Email To: **Brian.Voelker@VistraCorp.com**
 Phone: (217) 753-8911 Fax:
 Requested Due Date/TAT: **10 day**

Section B Required Project Information:

Report To: **Jason Stuckey**
 Copy To: **Jason Stuckey**
 Purchase Order No.:
 Project Name:
 Project Number: **2285**

Section C Invoice Information:

Attention: **Jason Stuckey**
 Company Name: **Vistra Corp**
 Address: **see Section A**
 Quote Reference:
 Project Manager:
 Profile #:

REGULATORY AGENCY
 NPDES **GROUND WATER** DRINKING WATER
 UST **RCRA** OTHER
 Site Location **IL**
 STATE:

ITEM #	Section D Required Client Information	Valid Matrix Codes	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED DATE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↑	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
										Y/N										
1	T44L	DRINKING WATER DW	WT G	G	1/16/23 11:49		2	Unpreserved	↓											
2	T45L	WASTE WATER WT	WT G	G	1/16/23 12:28		2	HCl	↓											
3	T46L	PRODUCT P	WT G	G	1/16/23 13:10		2	HNO ₃	↓											
4	X301	SCULPTURE S	WT G	G	1/16/23 10:23		2	H ₂ SO ₄	↓											
5		WIRE W																		
6		AIR A																		
7		OTHER O																		
8		TISSUE T																		
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				

ADDITIONAL COMMENTS: **DC-Q1-2023 Rev 3**

RELINQUISHED BY / AFFILIATION: **Jason Stuckey** DATE: **1/16/23** TIME: **1551**

ACCEPTED BY / AFFILIATION: **Jason Stuckey** DATE: **1/16/23** TIME: **1551**

SAMPLE NAME AND SIGNATURE: **Jason Stuckey**

PRINT Name of SAMPLER: **Jason Stuckey**

SIGNATURE of SAMPLER: **Jason Stuckey**

DATE Signed (MM/DD/YYYY): **01/16/23**

Temp in °C: **41.6**

Received on: **1/16/23**

Ice (Y/N): **✓**

Custody Sealed Cooler (Y/N): **✓**

Samples Intact (Y/N): **✓**

Duck Creek

WELL/SAMPLE POINT **G02S**

Purge Method: Bladder

Date: 1/11/23 Start Time: 9:50 Finish/Sample Time: 10:25
Well Depth (Bottom) From MP: 29.05 ft (top of pump) Min. Purge Volume: 1.5 Gal 1
Depth to Water From MP: 12.90 ft Total Purge Volume: 1.8 Gal 1
Water Column Length: NA ft Max Drawdown: NA ft
Well Water Volume: 1 Gal / L Total Drawdown: 0.85 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	10:10	13.75	190	6.61	805	11.22	-107	6.05	86.8
2	10:11	13.75	100	6.62	802	11.18	-107	5.91	83.5
3	10:12	13.75	100	6.63	800	11.15	-107	5.85	80.8
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) <u>1000mL</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 13.75 ft

Comments

Sampler's Signature: Jorge R. Reed

Duck Creek

WELL/SAMPLE POINT G50S

Purge Method: COMPRESSOR

Date: 01/12/23 Start Time: 1400 Finish/Sample Time: 1440

Well Depth (Bottom) From MP: 37.30 ft Min. Purge Volume: — Gal / L

Depth to Water From MP: 16.94 ft Total Purge Volume: 1.00 Gal / L

Water Column Length: 20.36 ft Max Drawdown: — ft

Well Water Volume: 12.33 Gal / L Total Drawdown: 3.55 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1421	19.35	100	6.81	669	10.45	83	3.85	0.00
2	1422	19.41	100	6.81	671	10.57	82	3.47	0.00
3	1423	19.54	100	6.80	671	10.50	81	3.80	0.00
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250mL) <u>1000</u>

(4)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 20.49 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT **G51S**

Purge Method: **COMPRESSOR**

Date: **01/12/23** Start Time: **1458** Finish/Sample Time: **1523**

Well Depth (Bottom) From MP: **32.17** ft
Min. Purge Volume: **1.00** Gal / L
Depth to Water From MP: **16.69** ft
Total Purge Volume: **1.00** Gal **10**
Water Column Length: **15.48** ft
Max Drawdown: **1** ft
Well Water Volume: **9.37** Gal **10**
Total Drawdown: **2.15** ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1511	18.25	100	6.42	1005	11.53	105	2.59	0.00
2	1512	18.34	100	6.42	1006	11.54	103	2.48	0.00
3	1513	18.45	100	6.42	1006	11.48	102	2.54	0.00
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

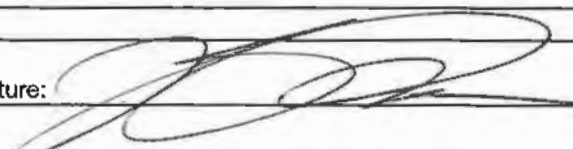
Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)

2

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: **18.84** ft

Comments

Sampler's Signature: 

Duck Creek

WELL/SAMPLE POINT G54L

Purge Method: Bailer

Date: 1-16-23 Start Time: 12:19 Finish/Sample Time: 12:59

Well Depth (Bottom) From MP: 40.30 ft
Depth to Water From MP: 26.35 ft
Water Column Length: 13.95 ft
Well Water Volume: 2.2 Gal / L
Min. Purge Volume: 8.4 Gal / L
Total Purge Volume: 25.3 Gal / L
Max Drawdown: — ft
Total Drawdown: 4.70 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	12:28	30.31	1	7.10	1,380	11.73	-31	4.24	68.7
2	12:34	31.01	1	6.95	1,370	11.76	-30	4.12	66.4
3	12:40	32.03	1	6.89	1,380	11.79	-27	3.98	65.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

398

Field Meter: Horiba

Sample Appearance:
Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong
Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong
Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	1000 P

4

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 31.05 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G54S

Purge Method: MP 50

Date: 1-16-23 Start Time: 13.04 Finish/Sample Time: 13:55

Well Depth (Bottom) From MP: 51.28 ft
Min. Purge Volume: 1.0 Gal / L
Depth to Water From MP: 26.02 ft
Total Purge Volume: 1.3 Gal / L
Water Column Length: 25.27 ft
Max Drawdown: — ft
Well Water Volume: 4.0 Gal / L
Total Drawdown: 7.03 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	13:22	29.03	100	7.15	0.973	11.69	-77	6.43	58.0
2	13:23	29.41	100	7.06	0.963	11.81	-74	6.28	52.0
3	13:24	29.92	100	6.92	0.977	11.97	-65	6.17	53.8
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	1000 mL P

Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 33.05 ft

Comments * 947 (U)

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G57S

Purge Method:

Compressor

Date: 01/12/23 Start Time: 1049 Finish/Sample Time: 1122

Well Depth (Bottom) From MP: 37.40 ft Min. Purge Volume: — Gal / L

Depth to Water From MP: 28.58 ft Total Purge Volume: 1.00 Gal 4

Water Column Length: 8.82 ft Max Drawdown: — ft

Well Water Volume: 5.34 Gal 1 Total Drawdown: 1.48 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1109	29.30	100	6.50	1010	9.57	202	4.24	0.00
2	1110	29.55	100	6.79	1010	9.49	205	4.51	0.00
3	1111	29.77	100	6.74	1016	9.21	208	3.99	0.00
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiza

Sample Appearance:

Odor: ☐ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) <u>1000 mL</u>

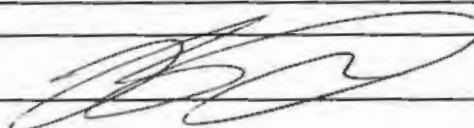
(4)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 30.00 ft

Comments

Sampler's Signature:



Duck Creek

SUBMERGIBLE

WELL/SAMPLE POINT G60S

Purge Method: COMPRESSION

Date: 01/12/23 Start Time: 1145 Finish/Sample Time: 1338

Well Depth (Bottom) From MP: 39.20 ft Min. Purge Volume: Gal / L
Depth to Water From MP: 28.40 ft Total Purge Volume: 1.00 Gal 10
Water Column Length: 10.80 ft Max Drawdown: ft
Well Water Volume: 6.54 Gal (L) Total Drawdown: 1.25 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1327	28.95	100	6.76	987	10.83	112	6.96	220
2	1328	29.03	100	6.64	992	10.85	112	6.95	212
3	1329	29.18	100	6.65	990	10.80	112	6.92	218
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) <u>1000 mL</u>

(4)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 29.65 ft

Comments BLADDER DID NOT WORK, USED SUBMERGIBLE

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G60L

Purge Method: Compressor

Date: 01/12/23 Start Time: 1207 Finish/Sample Time: 1248

Well Depth (Bottom) From MP: 27.00 ft
Depth to Water From MP: 24.05 ft
Water Column Length: 2.95 ft
Well Water Volume: 1.78 Gal 10
Min. Purge Volume: 1.00 Gal 10
Total Purge Volume: 1.00 Gal 10
Max Drawdown: 0.95 ft
Total Drawdown: 0.95 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1221	25.00	100	5.90	1000	10.07	160	1.32	6.10
2	1222	25.00	100	5.91	1000	10.05	157	0.98	3.30
3	1223	25.00	100	5.90	993	10.16	155	0.84	2.40
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

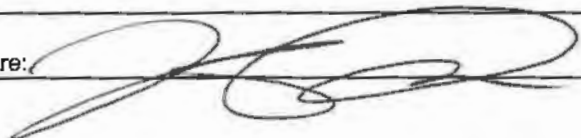
Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250mL) <u>1000mL</u>

(4)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 25.00 ft 25.50 LA

Comments

Sampler's Signature: 

Duck Creek

WELL/SAMPLE POINT G64L

Purge Method: SUBMERGIBLE

Date: 01/10/23 Start Time: 1304 Finish/Sample Time: 1327

Well Depth (Bottom) From MP: 30.46 ft Min. Purge Volume: Gal / L

Depth to Water From MP: 26.75 ft Total Purge Volume: 1.00 Gal 0

Water Column Length: 3.71 ft Max Drawdown: ft

Well Water Volume: 224 Gal / L Total Drawdown: 1.14 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1315	26.98	100	6.63	942	12.78	57	0.98	183
2	1316	27.22	100	6.64	941	12.61	56	0.81	172
3	1317	27.40	100	6.63	942	12.77	54	0.60	169
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
/	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
/	General (P, 250 mL) 1000mL

(4)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
/	General (P,500mL)

Final DTW: 27.89 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G64S

Purge Method: Compressor

Date: 01/11/25 Start Time: 1221 Finish/Sample Time: 1302

Well Depth (Bottom) From MP: 39.50 ft Min. Purge Volume: Gal / L

Depth to Water From MP: 27.70 ft Total Purge Volume: 1.00 Gal / L

Water Column Length: 11.80 ft Max Drawdown: ft

Well Water Volume: 7.14 Gal / L Total Drawdown: 1.00 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1248	28.57	100	6.92	747	12.11	98	5.32	0.00
2	1249	28.05	100	6.84	750	12.15	90	3.68	0.00
3	1250	28.70	100	6.77	766	12.21	65	2.32	0.00
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: 40RTBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

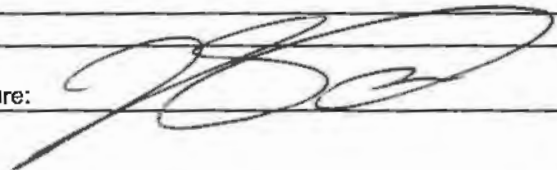
BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C.V, 40mL, HCL)
	VOAs (C.V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) 1000

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 28.70 ft

Comments

Sampler's Signature: 

Duck Creek

WELL/SAMPLE POINT **X301 Pump House**

Purge Method:

Leachate

Date:

16-Jan-23

Start Time:

1009

Finish/Sample Time:

1023

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1020	4.5	—	9.77	320	6.99	188	3.08	0.0
					3210				
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiba

Sample Appearance:

Odor: ☐ None ☐ Slight ☐ Mod. ☒ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Comments

Sampler's Signature:

Austin Moore

Multiparameter Meter Field Calibration Checklist

Field Personnel: KL JR		Location: Duck Creek	
Weather: 44° cloudy wind 4 mph		Environment: mud / grass	
Multiparameter Water Meter	Make: Horiba	Model: V-5000	Serial Number: U4U1FVTF
Water Level Meter	Make: Heron	Model: DIP-SET	Serial Number: 19FF220213 1ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	6.08	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC Zero (DI)	20.92	µS/cm	0<25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2.045	µS/cm	±5%	P	N		Geotech	2GE1442	May-23
ORP	2.28	mV	±15 mV	P	N		InSitu	2G1762	Jun-23
DO (Zero pt)	0.01	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	9.054	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.21	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 852	
--	--	--	--	--	------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.96	s.u.	±0.15 s.u.	P	N	Geotech	2GC243	Mar-24
pH 7.00b	7.01	s.u.	±0.15 s.u.	P	N	Geotech	2GC931	Mar-24
pH 10.00b	10.08	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24
SC 1000	956	µS/cm	±5%	F	Recal	Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1548	
---	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N	N	MSI	L315-04	11/22/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	N	N	MSI	L172-33	6/23/2023
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	N	N	MSI	L354-22	1/5/2024
SC 1000	997	µS/cm	±5%	P	N	N	Ricca	2108D48	Jul-23
DO (Zero pt)	0.05	mg/L	±0.1 mg/L	P	N	N	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	N	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
---	--	--	--	--	-------	--

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

Comments:

Signature: [Signature]	Date: 1/11/23
-------------------------------	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>			Location: <u>Duck Creek</u>		
Weather: <u>43° - 52° cloudy</u> <u>Wind SE 3-5 mph</u>			Environment: <u>grass, soil, mud</u>		
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>U-5000</u>	Serial Number: <u>YL9K J9HA</u>	
Water Level Meter		Make: <u>SOLINST</u>	Model: <u>101</u>	Serial Number: <u>252877</u>	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	L343-07	12/9/2023
pH 10.00a	<u>10.04</u>	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	<u>19.0</u>	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2060</u>	µS/cm	±5%				Geotech	1GK328	Nov-22
ORP	<u>243</u>	mV	±15 mV				InSitu	2GC827	Dec-22
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	<u>-</u>	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>1.2</u>	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

24A @ 10°C

ICV (Initial Calibration Verification)						Time: <u>0859</u>	
--	--	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>7.02</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC243	Mar-24
pH 7.00b	<u>6.88</u>	s.u.	±0.15 s.u.	<u>I</u>		Geotech	2GC931	Mar-24
pH 10.00b	<u>9.96</u>	s.u.	±0.15 s.u.	<u>I</u>		Geotech	2GE820	May-24
SC 1000	<u>1040</u>	µS/cm	±5%	<u>I</u>		Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1450</u>	
---	--	--	--	--	--	-------------------	--

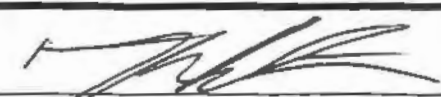
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L315-04	11/22/2023
pH 7.00a	<u>7.07</u>	s.u.	±0.1 s.u.	<u>I</u>			MSI	L172-33	6/23/2023
pH 10.00a	<u>10.07</u>	s.u.	±0.1 s.u.	<u>I</u>			MSI	L354-22	1/5/2024
SC 1000	<u>1020</u>	µS/cm	±5%	<u>I</u>			Ricca	2108D48	Jul-23
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>I</u>			Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:	
---	--	--	--	--	--	-------	--

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

Comments:

Signature: 	Date: <u>1/11/2023</u>
--	------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel:	NALES DESKE			Location:	DUCK CREEK				
Weather:	44° CLOUDY WIND 4 mph			Environment:	GRASSY, NO DUCKS				
Multiparameter Water Meter	Make:	Hanna	Model:	U-52 HORIZA	Serial Number:	PW264503			
Water Level Meter	Make:	Hanna	Model:	Dipstick	Serial Number:	11FF2209305 ML			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC Zero (DI)	13.50	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1998	µS/cm	±5%				Geotech	1GK328	Nov-22
ORP	242	mV	±15 mV				InSitu	1GL481	Sep-22
DO (Zero pt)	0.04	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)		%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.24	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0850			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.99	s.u.	±0.15 s.u.	PASS	NO	Geotech	1GF009	Jun-23	
pH 7.00b	7.02	s.u.	±0.15 s.u.			Geotech	0GJ268	Oct-22	
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	1GF458	Jun-23	
SC 1000	1009	µS/cm	±5%			Ricca	2108D48	Jul-23	

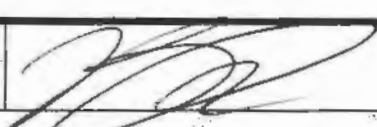
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1530			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000	1006	µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)	0.02	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.24	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

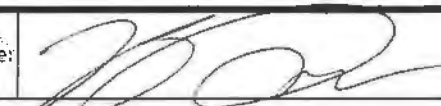
Approx. every 4 hrs, unless only one well

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

Comments:

Signature:			Date:	01/11/23	
------------	---	--	-------	----------	--

Multiparameter Meter Field Calibration Checklist

Field Personnel: KALEB DESKE		Location: DUCK CREEK							
Weather: 36° CLOUDS WIND 9 mph N		Environment: STILL NO DUCKS, AND I DON'T SEE A CREEK							
Multiparameter Water Meter	Make: Horiba	Model: U52	Serial Number: PW2GYJ03						
Water Level Meter	Make: Solinst	Model: 101	Serial Number: 252829						
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC Zero (DI)	13.20	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2006	µS/cm	±5%				Geotech	1GK328	Nov-22
ORP	240	mV	±15 mV				InSitu	1GL481	Sep-22
DO (Zero pt)	0.02	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)		%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	10.20	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time: 0846				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.04	s.u.	±0.15 s.u.	PASS	NO	Geotech	1GF009	Jun-23	
pH 7.00b	6.97	s.u.	±0.15 s.u.			Geotech	0GJ268	Oct-22	
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	1GF458	Jun-23	
SC 1000	1006	µS/cm	±5%			Ricca	2108D48	Jul-23	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: 1553				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000	1004	µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.80	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Comments:									
Signature: 					Date: 01/12/23				

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>			Location: <u>Duck Creek</u>		
Weather: <u>36°-39° cloudy, wind N 7 mph</u>			Environment: <u>woods, grass, sun</u>		
Multiparameter Water Meter		Make: <u>Horseshoe Heron</u>	Model: <u>V-Sonic</u>	Serial Number: <u>YLOK 59 HA</u>	
Water Level Meter		Make: <u>Keen</u>	Model: <u>Dipart</u>	Serial Number: <u>10 SL 2202 131 ML</u>	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.06</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>2010</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>236,204</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Geotech	1GK328	Nov-22
ORP	<u>236</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	<u>N/A</u>	InSitu	2GC827	Dec-22
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>-</u>	%	97-100%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Water 20°C @ 10°C

ICV (Initial Calibration Verification)					Time: <u>00163</u>	
--	--	--	--	--	--------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC243	Mar-24
pH 7.00b	<u>7.01</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>10.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1540</u>	
---	--	--	--	--	-------------------	--

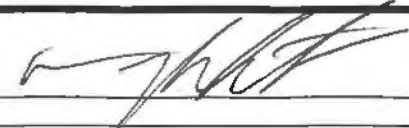
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L315-04	11/22/2023
pH 7.00a	<u>7.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L172-33	6/23/2023
pH 10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L354-22	1/5/2024
SC 1000	<u>1020</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Ricca	2108D48	Jul-23
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
---	--	--	--	--	-------	--

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

Comments:

Signature: 	Date: <u>1/12/2023</u>
--	------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Austin Moore</u>				Location: <u>duck creek</u>			
Weather: <u>57-39° cloudy/rain</u> ^{wind} <u>sse itaph</u>				Environment: <u>mud, grass, rain</u>			
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>V-5000</u>	Serial Number: <u>PW26YJ03</u>			
Water Level Meter		Make: <u>WT</u>	Model: <u>Herron</u>	Serial Number: <u>19FF21119245</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>3.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>19</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1998</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Geotech	1GK328	Nov-22
ORP	<u>253</u>	mV	±15 mV	<u>P</u>	<u>N</u>	<u>N/A</u>	InSitu	2GC827	Dec-22
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>—</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0945</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.05</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GC243	Mar-24	
pH 7.00b	<u>7.02</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>9.98</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>1025</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4205H64	May-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1447</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L315-04	11/22/2023
pH 7.00a	<u>7.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L172-33	6/23/2023
pH 10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L354-22	1/5/2024
SC 1000	<u>993</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Ricca	2108D48	Jul-23
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature: <u>Austin Moore</u>	Date: <u>16-Jun-23</u>
--------------------------------	------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyle Lane</u>		Location: <u>Duck Creek</u>	
Weather: <u>38° to 57° cloudy rainy</u>		Environment: <u>MVODY</u>	
Multiparameter Water Meter	Make: <u>HANNA</u>	Model: <u>HANNA HI9142</u>	Serial Number: <u>1461FVF</u>
Water Level Meter	Make: <u>SCINIST</u>	Model: <u>101</u>	Serial Number: <u>336216</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Na</u>	<u>Na</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Na</u>	<u>Na</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.04</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Na</u>	<u>Na</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>20.36</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>Na</u>	<u>Na</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>19.95</u>	µS/cm	±5%	<u>P</u>	<u>Na</u>	<u>Na</u>	Geotech	2GE1442	May-23
ORP	<u>234</u>	mV	±15 mV	<u>P</u>	<u>Na</u>	<u>Na</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>P</u>	<u>Na</u>	<u>Na</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>9.9.10</u>	%	97-100%	<u>P</u>	<u>Na</u>	<u>Na</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>1.04</u>	NTU	<2 NTU	<u>P</u>	<u>Na</u>	<u>Na</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>09:36</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.94</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>Na</u>	Geotech	2GC243	Mar-24	
pH 7.00b	<u>6.92</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>Na</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>10.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>Na</u>	Geotech	2GE820	May-24	
SC 1000	<u>961</u>	µS/cm	±5%	<u>P</u>	<u>Na</u>	Ricca	420SH64	May-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>14:42</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Na</u>	<u>Na</u>	MSI	L315-04	11/22/2023
pH 7.00a	<u>6.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Na</u>	<u>Na</u>	MSI	L172-33	6/23/2023
pH 10.00a	<u>10.04</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Na</u>	<u>Na</u>	MSI	L354-22	1/5/2024
SC 1000	<u>99.7</u>	µS/cm	±5%	<u>P</u>	<u>Na</u>	<u>Na</u>	Ricca	2108D48	Jul-23
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>Na</u>	<u>Na</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>1.15</u>	NTU	<2 NTU	<u>P</u>	<u>Na</u>	<u>Na</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>14:42</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Na</u>	<u>Na</u>	MSI	L315-04	11/22/2023
7.00a	<u>6.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Na</u>	<u>Na</u>	MSI	L172-33	6/23/2023
10.00a	<u>10.04</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Na</u>	<u>Na</u>	MSI	L354-22	1/5/2024
SC 1000	<u>99.7</u>	µS/cm	±5%	<u>P</u>	<u>Na</u>	<u>Na</u>	Ricca	2108D48	Jul-23
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>Na</u>	<u>Na</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>1.15</u>	NTU	<2 NTU	<u>P</u>	<u>Na</u>	<u>Na</u>	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>[Signature]</u>	Date: <u>1-16-23</u>
-------------------------------	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Tamm Pemberton			Location:	Duck Creek				
Weather:	43°-55° cloudy rain wind SE 16 mph			Environment:	grass, mud				
Multiparameter Water Meter	Make:	Hanna	Model:	US800	Serial Number:	4L9H59 HA			
Water Level Meter	Make:	Hera	Model:	Dipart	Serial Number:	1262212131M			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.97	s.u.	±0.1 s.u.	P			MSI	L343-07	12/9/2023
pH 10.00a	9.04	s.u.	±0.1 s.u.	P			MSI	M082-04	3/25/2024
SC Zero (DI)	0.0	µS/cm	0-25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2060	µS/cm	±5%	P			Geotech	1GK328	Nov-22
ORP	238	mV	±15 mV	P			InSitu	2GC827	Dec-22
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	-	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0950			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	N/A	Geotech	2GC243	Mar-24	
pH 7.00b	6.98	s.u.	±0.15 s.u.	P		Geotech	2GC931	Mar-24	
pH 10.00b	9.01	s.u.	±0.15 s.u.	P		Geotech	2GE820	May-24	
SC 1000	1020	µS/cm	±5%	P		Ricca	4205H64	May-24	

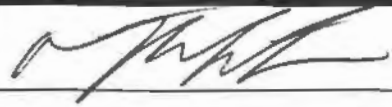
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1452			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	L172-33	6/23/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	P			MSI	L354-22	1/5/2024
SC 1000	1040	µS/cm	±5%	P			Ricca	2108D48	Jul-23
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	1/16/2023
------------	---	-------	-----------



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

July 18, 2023

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

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

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

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

Gail Schindler
Sincerely,

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



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GE02228

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



Work Order GE02632

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



Work Order GE02767

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



Work Order GE02997

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



Case Narrative

Revised Report - added missing fluoride results.



ANALYTICAL RESULTS

Sample: GE02228-01
Name: X301
Matrix: Ground Water - Grab

Sampled: 05/10/23 15:43
Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	320	mg/L		05/25/23 13:47	100	100	05/25/23 13:47	CRD	EPA 300.0 REV 2.1
Sulfate	640	mg/L		05/25/23 13:47	100	100	05/25/23 13:47	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Dissolved oxygen, Field	12	mg/L		05/10/23 15:43	1		05/10/23 15:43	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	30	mg/L		05/19/23 14:15	1	10	05/19/23 14:15	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/19/23 14:15	1	10	05/19/23 14:15	CPS	SM 2320B 1997*
<u>Total Metals - PIA</u>									
Calcium	580	mg/L		05/15/23 12:00	100	4.0	05/23/23 09:41	JMW	EPA 6020A
Magnesium	1500	mg/L		05/15/23 12:00	100	2.0	05/23/23 09:41	JMW	EPA 6020A
Potassium	50	mg/L		05/15/23 12:00	5	0.10	05/23/23 11:17	JMW	EPA 6020A
Sodium	340	mg/L		05/15/23 12:00	5	0.10	05/23/23 11:17	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02632-11
Name: G57S
Matrix: Ground Water - Grab

Sampled: 05/11/23 15:22
Received: 05/11/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	16	mg/L	Q4	05/12/23 23:11	10	10	05/12/23 23:11	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		05/12/23 21:24	1	0.250	05/12/23 21:24	CRD	EPA 300.0 REV 2.1
Sulfate	49	mg/L	Q4	05/12/23 23:11	10	10	05/12/23 23:11	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.25	Feet		05/11/23 15:22	1		05/11/23 15:22	FIELD	Field*
Dissolved oxygen, Field	2.6	mg/L		05/11/23 15:22	1		05/11/23 15:22	FIELD	Field*
Oxidation Reduction Potential	125	mV		05/11/23 15:22	1	-500	05/11/23 15:22	FIELD	Field*
pH, Field Measured	6.87	pH Units		05/11/23 15:22	1		05/11/23 15:22	FIELD	Field*
Specific Conductance, Field Measured	1281	umhos/cm		05/11/23 15:22	1		05/11/23 15:22	FIELD	Field*
Temperature, Field Measured	17.7	°C		05/11/23 15:22	1		05/11/23 15:22	FIELD	Field*
Turbidity, Field Measured	46.8	NTU		05/11/23 15:22	1	0.00	05/11/23 15:22	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	760	mg/L		05/22/23 09:02	1	10	05/22/23 09:02	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/22/23 09:02	1	10	05/22/23 09:02	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	890	mg/L	M	05/18/23 15:57	1	26	05/18/23 16:48	HRF	SM 2540C
Total Metals - PIA									
Boron	< 10	ug/L		05/15/23 12:00	5	10	05/23/23 14:55	JMW	EPA 6020A
Calcium	170	mg/L		05/15/23 12:00	5	0.20	05/23/23 12:35	JMW	EPA 6020A
Magnesium	97	mg/L		05/15/23 12:00	5	0.10	05/23/23 12:35	JMW	EPA 6020A
Potassium	0.31	mg/L		05/15/23 12:00	5	0.10	05/23/23 12:35	JMW	EPA 6020A
Sodium	12	mg/L		05/15/23 12:00	5	0.10	05/23/23 12:35	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02632-14
Name: G64S
Matrix: Ground Water - Grab

Sampled: 05/11/23 15:11
Received: 05/11/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	3.4	mg/L		05/12/23 23:33	1	1.0	05/12/23 23:33	CRD	EPA 300.0 REV 2.1
Fluoride	0.294	mg/L		05/12/23 23:33	1	0.250	05/12/23 23:33	CRD	EPA 300.0 REV 2.1
Sulfate	23	mg/L		05/12/23 23:54	10	10	05/12/23 23:54	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	23.26	Feet		05/11/23 15:11	1		05/11/23 15:11	FIELD	Field*
Dissolved oxygen, Field	4.6	mg/L		05/11/23 15:11	1		05/11/23 15:11	FIELD	Field*
Oxidation Reduction Potential	-33.0	mV		05/11/23 15:11	1	-500	05/11/23 15:11	FIELD	Field*
pH, Field Measured	6.86	pH Units		05/11/23 15:11	1		05/11/23 15:11	FIELD	Field*
Specific Conductance, Field Measured	765.0	umhos/cm		05/11/23 15:11	1		05/11/23 15:11	FIELD	Field*
Temperature, Field Measured	16.4	°C		05/11/23 15:11	1		05/11/23 15:11	FIELD	Field*
Turbidity, Field Measured	48.5	NTU		05/11/23 15:11	1	0.00	05/11/23 15:11	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	410	mg/L		05/22/23 09:02	1	10	05/22/23 09:02	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/22/23 09:02	1	10	05/22/23 09:02	CPS	SM 2320B 1997*
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	450	mg/L		05/18/23 15:57	1	26	05/18/23 16:48	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Boron	14	ug/L		05/15/23 12:00	5	10	05/23/23 14:59	JMW	EPA 6020A
Calcium	97	mg/L		05/15/23 12:00	5	0.20	05/23/23 12:39	JMW	EPA 6020A
Magnesium	44	mg/L		05/15/23 12:00	5	0.10	05/23/23 12:39	JMW	EPA 6020A
Potassium	0.56	mg/L		05/15/23 12:00	5	0.10	05/23/23 12:39	JMW	EPA 6020A
Sodium	12	mg/L		05/15/23 12:00	5	0.10	05/23/23 12:39	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02767-05
Name: G54L
Matrix: Ground Water - Grab

Sampled: 05/12/23 12:20
Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	33	mg/L		05/13/23 05:33	10	10	05/13/23 05:33	CRD	EPA 300.0 REV 2.1
Sulfate	120	mg/L		05/25/23 15:55	25	25	05/25/23 15:55	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	22.4	Feet		05/12/23 12:20	1		05/12/23 12:20	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		05/12/23 12:20	1		05/12/23 12:20	FIELD	Field*
Oxidation Reduction Potential	-37.5	mV		05/12/23 12:20	1	-500	05/12/23 12:20	FIELD	Field*
pH, Field Measured	6.54	pH Units		05/12/23 12:20	1		05/12/23 12:20	FIELD	Field*
Specific Conductance, Field Measured	1505	umhos/cm		05/12/23 12:20	1		05/12/23 12:20	FIELD	Field*
Temperature, Field Measured	20.4	°C		05/12/23 12:20	1		05/12/23 12:20	FIELD	Field*
Turbidity, Field Measured	130	NTU		05/12/23 12:20	1	0.00	05/12/23 12:20	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	690	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 11:14	1	0.250	05/24/23 11:14	TTH	SM 4500F C 1997
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	520	mg/L		05/18/23 17:03	1	26	05/18/23 17:42	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Boron	95	ug/L		05/16/23 09:02	5	10	05/19/23 11:39	JMW	EPA 6020A
Calcium	190	mg/L		05/16/23 09:02	5	0.20	05/19/23 11:39	JMW	EPA 6020A
Magnesium	91	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:39	JMW	EPA 6020A
Potassium	0.45	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:39	JMW	EPA 6020A
Sodium	17	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:39	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02767-06
Name: G54S
Matrix: Ground Water - Grab

Sampled: 05/12/23 13:04
Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	< 5.0	mg/L		05/25/23 16:16	5	5.0	05/25/23 16:16	CRD	EPA 300.0 REV 2.1
Sulfate	31	mg/L		05/13/23 06:10	10	10	05/13/23 06:10	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	23.4	Feet		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Oxidation Reduction Potential	-30.0	mV		05/12/23 13:04	1	-500	05/12/23 13:04	FIELD	Field*
pH, Field Measured	6.73	pH Units		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Specific Conductance, Field Measured	796.0	umhos/cm		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Temperature, Field Measured	16.3	°C		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Turbidity, Field Measured	40.5	NTU		05/12/23 13:04	1	0.00	05/12/23 13:04	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	500	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 11:16	1	0.250	05/24/23 11:16	TTH	SM 4500F C 1997
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	540	mg/L		05/18/23 17:03	1	26	05/18/23 17:42	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Boron	62	ug/L		05/16/23 09:02	5	10	05/19/23 11:43	JMW	EPA 6020A
Calcium	130	mg/L		05/16/23 09:02	5	0.20	05/19/23 11:43	JMW	EPA 6020A
Magnesium	50	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:43	JMW	EPA 6020A
Potassium	0.74	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:43	JMW	EPA 6020A
Sodium	9.4	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:43	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02767-07
Name: G54S DUP
Matrix: Ground Water - Field Duplicate

Sampled: 05/12/23 13:04
Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	< 5.0	mg/L		05/25/23 16:59	5	5.0	05/25/23 16:59	CRD	EPA 300.0 REV 2.1
Sulfate	30	mg/L		05/13/23 06:48	10	10	05/13/23 06:48	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	23.4	Feet		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Oxidation Reduction Potential	-30.0	mV		05/12/23 13:04	1	-500	05/12/23 13:04	FIELD	Field*
pH, Field Measured	6.73	pH Units		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Specific Conductance, Field Measured	796.0	umhos/cm		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Temperature, Field Measured	16.3	°C		05/12/23 13:04	1		05/12/23 13:04	FIELD	Field*
Turbidity, Field Measured	40.5	NTU		05/12/23 13:04	1	0.00	05/12/23 13:04	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO3	480	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 12:07	1	0.250	05/24/23 12:07	TTH	SM 4500F C 1997
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	580	mg/L		05/18/23 17:03	1	26	05/18/23 17:42	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Boron	52	ug/L		05/16/23 09:02	5	10	05/19/23 11:47	JMW	EPA 6020A
Calcium	130	mg/L		05/16/23 09:02	5	0.20	05/19/23 11:47	JMW	EPA 6020A
Magnesium	50	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:47	JMW	EPA 6020A
Potassium	0.71	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:47	JMW	EPA 6020A
Sodium	9.3	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:47	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02767-08
Name: G60L
Matrix: Ground Water - Grab

Sampled: 05/12/23 10:48
Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	11	mg/L		05/13/23 08:03	5	5.0	05/13/23 08:03	CRD	EPA 300.0 REV 2.1
Sulfate	160	mg/L		05/13/23 08:22	50	50	05/13/23 08:22	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	12.27	Feet		05/12/23 10:48	1		05/12/23 10:48	FIELD	Field*
Dissolved oxygen, Field	2.4	mg/L		05/12/23 10:48	1		05/12/23 10:48	FIELD	Field*
Oxidation Reduction Potential	242	mV		05/12/23 10:48	1	-500	05/12/23 10:48	FIELD	Field*
pH, Field Measured	5.97	pH Units		05/12/23 10:48	1		05/12/23 10:48	FIELD	Field*
Specific Conductance, Field Measured	720.0	umhos/cm		05/12/23 10:48	1		05/12/23 10:48	FIELD	Field*
Temperature, Field Measured	13.7	°C		05/12/23 10:48	1		05/12/23 10:48	FIELD	Field*
Turbidity, Field Measured	15.4	NTU		05/12/23 10:48	1	0.00	05/12/23 10:48	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	300	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 12:28	1	0.250	05/24/23 12:28	TTH	SM 4500F C 1997
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	510	mg/L		05/18/23 17:03	1	26	05/18/23 17:42	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Boron	42	ug/L		05/16/23 09:02	5	10	05/19/23 11:51	JMW	EPA 6020A
Calcium	100	mg/L		05/16/23 09:02	5	0.20	05/19/23 11:51	JMW	EPA 6020A
Magnesium	40	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:51	JMW	EPA 6020A
Potassium	0.33	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:51	JMW	EPA 6020A
Sodium	33	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:51	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02767-09
Name: G60S
Matrix: Ground Water - Grab

Sampled: 05/12/23 11:00
Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	7.0	mg/L		05/30/23 17:14	5	5.0	05/30/23 17:14	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		05/26/23 04:44	1	0.250	05/26/23 04:44	CRD	EPA 300.0 REV 2.1
Sulfate	68	mg/L		05/26/23 05:05	25	25	05/26/23 05:05	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.28	Feet		05/12/23 11:00	1		05/12/23 11:00	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		05/12/23 11:00	1		05/12/23 11:00	FIELD	Field*
Oxidation Reduction Potential	-21.7	mV		05/12/23 11:00	1	-500	05/12/23 11:00	FIELD	Field*
pH, Field Measured	6.81	pH Units		05/12/23 11:00	1		05/12/23 11:00	FIELD	Field*
Specific Conductance, Field Measured	955.6	umhos/cm		05/12/23 11:00	1		05/12/23 11:00	FIELD	Field*
Temperature, Field Measured	17.6	°C		05/12/23 11:00	1		05/12/23 11:00	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		05/12/23 11:00	1	0.00	05/12/23 11:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	480	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/23/23 10:23	1	10	05/23/23 10:23	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	600	mg/L		05/18/23 17:03	1	26	05/18/23 17:42	HRF	SM 2540C
Total Metals - PIA									
Boron	30	ug/L		05/16/23 09:02	5	10	05/19/23 11:54	JMW	EPA 6020A
Calcium	140	mg/L		05/16/23 09:02	5	0.20	05/19/23 11:54	JMW	EPA 6020A
Magnesium	53	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:54	JMW	EPA 6020A
Potassium	0.98	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:54	JMW	EPA 6020A
Sodium	13	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:54	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02997-02
Name: G02S
Matrix: Ground Water - Grab

Sampled: 05/15/23 15:18
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	2.6	mg/L		05/16/23 11:09	1	1.0	05/16/23 11:09	CRD	EPA 300.0 REV 2.1
Fluoride	0.282	mg/L		05/16/23 11:09	1	0.250	05/16/23 11:09	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		05/16/23 11:09	1	1.0	05/16/23 11:09	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	7.79	Feet		05/15/23 15:18	1		05/15/23 15:18	FIELD	Field*
Dissolved oxygen, Field	4.1	mg/L		05/15/23 15:18	1		05/15/23 15:18	FIELD	Field*
Oxidation Reduction Potential	-104	mV		05/15/23 15:18	1	-500	05/15/23 15:18	FIELD	Field*
pH, Field Measured	6.85	pH Units		05/15/23 15:18	1		05/15/23 15:18	FIELD	Field*
Specific Conductance, Field Measured	640.0	umhos/cm		05/15/23 15:18	1		05/15/23 15:18	FIELD	Field*
Temperature, Field Measured	14.3	°C		05/15/23 15:18	1		05/15/23 15:18	FIELD	Field*
Turbidity, Field Measured	19.5	NTU		05/15/23 15:18	1	0.00	05/15/23 15:18	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	420	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	430	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Boron	64	ug/L		05/22/23 09:08	5	10	05/24/23 13:26	JMW	EPA 6020A
Calcium	96	mg/L		05/22/23 09:08	5	0.20	05/23/23 21:15	JMW	EPA 6020A
Magnesium	37	mg/L		05/22/23 09:08	5	0.10	05/23/23 21:15	JMW	EPA 6020A
Potassium	0.70	mg/L		05/22/23 09:08	5	0.10	05/24/23 13:26	JMW	EPA 6020A
Sodium	14	mg/L		05/22/23 09:08	5	0.10	05/24/23 13:26	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02997-03
Name: G50S
Matrix: Ground Water - Grab

Sampled: 05/15/23 12:56
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	9.5	mg/L		05/16/23 12:03	5	5.0	05/16/23 12:03	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		05/16/23 11:45	1	0.250	05/16/23 11:45	CRD	EPA 300.0 REV 2.1
Sulfate	40	mg/L		05/16/23 12:03	5	5.0	05/16/23 12:03	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	12.1	Feet		05/15/23 12:56	1		05/15/23 12:56	FIELD	Field*
Dissolved oxygen, Field	6.8	mg/L		05/15/23 12:56	1		05/15/23 12:56	FIELD	Field*
Oxidation Reduction Potential	-103	mV		05/15/23 12:56	1	-500	05/15/23 12:56	FIELD	Field*
pH, Field Measured	7.26	pH Units		05/15/23 12:56	1		05/15/23 12:56	FIELD	Field*
Specific Conductance, Field Measured	561.0	umhos/cm		05/15/23 12:56	1		05/15/23 12:56	FIELD	Field*
Temperature, Field Measured	14.1	°C		05/15/23 12:56	1		05/15/23 12:56	FIELD	Field*
Turbidity, Field Measured	66.7	NTU		05/15/23 12:56	1	0.00	05/15/23 12:56	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	460	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	380	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Boron	30	ug/L		05/22/23 09:08	5	10	05/24/23 13:29	JMW	EPA 6020A
Calcium	90	mg/L		05/22/23 09:08	5	0.20	05/23/23 21:19	JMW	EPA 6020A
Magnesium	37	mg/L		05/22/23 09:08	5	0.10	05/23/23 21:19	JMW	EPA 6020A
Potassium	0.35	mg/L		05/22/23 09:08	5	0.10	05/24/23 13:29	JMW	EPA 6020A
Sodium	9.0	mg/L		05/22/23 09:08	5	0.10	05/24/23 13:29	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02997-04
Name: G51S
Matrix: Ground Water - Grab

Sampled: 05/15/23 11:26
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	12	mg/L		05/16/23 12:40	10	10	05/16/23 12:40	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		05/16/23 12:21	1	0.250	05/16/23 12:21	CRD	EPA 300.0 REV 2.1
Sulfate	56	mg/L		05/16/23 12:40	10	10	05/16/23 12:40	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.95	Feet		05/15/23 11:26	1		05/15/23 11:26	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		05/15/23 11:26	1		05/15/23 11:26	FIELD	Field*
Oxidation Reduction Potential	-53.0	mV		05/15/23 11:26	1	-500	05/15/23 11:26	FIELD	Field*
pH, Field Measured	7.12	pH Units		05/15/23 11:26	1		05/15/23 11:26	FIELD	Field*
Specific Conductance, Field Measured	600.0	umhos/cm		05/15/23 11:26	1		05/15/23 11:26	FIELD	Field*
Temperature, Field Measured	13.6	°C		05/15/23 11:26	1		05/15/23 11:26	FIELD	Field*
Turbidity, Field Measured	430	NTU		05/15/23 11:26	1	0.00	05/15/23 11:26	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	290	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	430	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
Total Metals - PIA									
Boron	21	ug/L		05/22/23 09:08	5	10	05/24/23 13:33	JMW	EPA 6020A
Calcium	98	mg/L		05/22/23 09:08	5	0.20	05/23/23 21:23	JMW	EPA 6020A
Magnesium	41	mg/L		05/22/23 09:08	5	0.10	05/23/23 21:23	JMW	EPA 6020A
Potassium	0.29	mg/L		05/22/23 09:08	5	0.10	05/24/23 13:33	JMW	EPA 6020A
Sodium	7.3	mg/L		05/22/23 09:08	5	0.10	05/24/23 13:33	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02997-08
Name: G64L
Matrix: Ground Water - Grab

Sampled: 05/15/23 15:00
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	2.8	mg/L		05/16/23 14:10	1	1.0	05/16/23 14:10	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		05/16/23 14:10	1	0.250	05/16/23 14:10	CRD	EPA 300.0 REV 2.1
Sulfate	69	mg/L		05/16/23 14:46	50	50	05/16/23 14:46	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	21.17	Feet		05/15/23 15:00	1		05/15/23 15:00	FIELD	Field*
Dissolved oxygen, Field	3.9	mg/L		05/15/23 15:00	1		05/15/23 15:00	FIELD	Field*
Oxidation Reduction Potential	133	mV		05/15/23 15:00	1	-500	05/15/23 15:00	FIELD	Field*
pH, Field Measured	6.99	pH Units		05/15/23 15:00	1		05/15/23 15:00	FIELD	Field*
Specific Conductance, Field Measured	958.0	umhos/cm		05/15/23 15:00	1		05/15/23 15:00	FIELD	Field*
Temperature, Field Measured	16.1	°C		05/15/23 15:00	1		05/15/23 15:00	FIELD	Field*
Turbidity, Field Measured	259	NTU		05/15/23 15:00	1	0.00	05/15/23 15:00	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	480	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	600	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
<u>Total Metals - PIA</u>									
Boron	31	ug/L		05/22/23 09:08	5	10	05/24/23 14:00	JMW	EPA 6020A
Calcium	110	mg/L		05/22/23 09:08	5	0.20	05/23/23 21:46	JMW	EPA 6020A
Magnesium	65	mg/L		05/22/23 09:08	5	0.10	05/23/23 21:46	JMW	EPA 6020A
Potassium	1.2	mg/L		05/22/23 09:08	5	0.10	05/24/23 14:00	JMW	EPA 6020A
Sodium	14	mg/L		05/22/23 09:08	5	0.10	05/24/23 14:00	JMW	EPA 6020A



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B333386 - SW 3015 - EPA 6020A</u>									
Blank (B333386-BLK1)				Prepared: 05/15/23 Analyzed: 05/23/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B333386-BS1)				Prepared: 05/15/23 Analyzed: 05/23/23					
Boron	482	ug/L		555.6		87	80-120		
Calcium	5.14	mg/L		5.556		93	80-120		
Magnesium	5.06	mg/L		5.556		91	80-120		
Potassium	5.14	mg/L		5.556		93	80-120		
Sodium	5.11	mg/L		5.556		92	80-120		
<u>Batch B333402 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B333402-MS3)		Sample: GE02632-11		Prepared & Analyzed: 05/12/23					
Fluoride	1.69	mg/L		1.500	0.243	96	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	49.0	NR	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	16	NR	80-120		
Matrix Spike Dup (B333402-MSD3)		Sample: GE02632-11		Prepared & Analyzed: 05/12/23					
Chloride	< 1.0	mg/L	Q4	1.500	16	NR	80-120		20
Fluoride	1.67	mg/L		1.500	0.243	95	80-120	1	20
Sulfate	1.00E9	mg/L	Q4	1.500	49.0	NR	80-120	0	20
<u>Batch B333464 - SW 3015 - EPA 6020A</u>									
Blank (B333464-BLK1)				Prepared: 05/16/23 Analyzed: 05/19/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B333464-BS1)				Prepared: 05/16/23 Analyzed: 05/19/23					
Boron	1080	ug/L		1111		97	80-120		
Calcium	5.58	mg/L		5.556		101	80-120		
Magnesium	5.39	mg/L		5.556		97	80-120		
Potassium	5.55	mg/L		5.556		100	80-120		
Sodium	5.65	mg/L		5.556		102	80-120		
<u>Batch B333806 - No Prep - SM 2540C</u>									
Blank (B333806-BLK1)				Prepared & Analyzed: 05/18/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B333806-BS1)				Prepared & Analyzed: 05/18/23					
Solids - total dissolved solids (TDS)	983	mg/L		1000		98	84.9-109		
Duplicate (B333806-DUP2)		Sample: GE02632-11		Prepared & Analyzed: 05/18/23					
Solids - total dissolved solids (TDS)	235	mg/L	M		890			116	5
<u>Batch B333818 - No Prep - SM 2540C</u>									



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

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B333818-BLK1)				Prepared & Analyzed: 05/18/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B333818-BS1)				Prepared & Analyzed: 05/18/23					
Solids - total dissolved solids (TDS)	923	mg/L		1000		92	84.9-109		
Duplicate (B333818-DUP2)				Sample: GE02767-09 Prepared & Analyzed: 05/18/23					
Solids - total dissolved solids (TDS)	625	mg/L			605			3	5
<u>Batch B333887 - No Prep - SM 2540C</u>									
Blank (B333887-BLK1)				Prepared & Analyzed: 05/19/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B333887-BS1)				Prepared & Analyzed: 05/19/23					
Solids - total dissolved solids (TDS)	940	mg/L		1000		94	84.9-109		
<u>Batch B333977 - SW 3015 - EPA 6020A</u>									
Blank (B333977-BLK1)				Prepared: 05/22/23 Analyzed: 05/24/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L	Ba						
Sodium	0.126	mg/L	B						
LCS (B333977-BS1)				Prepared: 05/22/23 Analyzed: 05/24/23					
Boron	548	ug/L		555.6		99	80-120		
Calcium	5.48	mg/L		5.556		99	80-120		
Magnesium	5.66	mg/L		5.556		102	80-120		
Potassium	5.59	mg/L		5.556		101	80-120		
Sodium	5.59	mg/L		5.556		101	80-120		
<u>Batch B334050 - No Prep - SM 2320B 1997</u>									
Duplicate (B334050-DUP2)				Sample: GE02632-11 Prepared & Analyzed: 05/22/23					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	775	mg/L			762			2	10
Duplicate (B334050-DUP4)				Sample: GE02632-14 Prepared & Analyzed: 05/22/23					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	412	mg/L			412			0	10
<u>Batch B334208 - No Prep - SM 4500F C 1997</u>									
Matrix Spike (B334208-MS3)				Sample: GE02228-01 Prepared & Analyzed: 05/24/23					
Fluoride	39.2	mg/L	Q4	1.000	27.8	NR	80-120		
Matrix Spike Dup (B334208-MSD3)				Sample: GE02228-01 Prepared & Analyzed: 05/24/23					
Fluoride	39.4	mg/L	Q4	1.000	27.8	NR	80-120	0.3	20



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

NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

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

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

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

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

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

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

USEPA DMR-QA Program

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

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

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

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

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

Qualifiers

- B Present in the method blank at 126 ug/L.
- Ba Present in the method blank at 232 ug/L.
- M Analyte failed to meet the required acceptance criteria for duplicate analysis.
- Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Gail Schindler

Certified by: Gail Schindler, Project Manager



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-257-203

Phone: (217) 753-8911 Fax:		Project Name:		Project Number: 2285		Project Manager: Profile #		Site Location: IL		STATE:	
Requested Due Date/TAT: 10 day		Requested Analysis Filtered (Y/N)									
Section D Required Client Information		Valid Matrix Codes		SAMPLE TYPE (G=GRAB C=COMP)		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS	
MATRIX CODE DW WT WW P SL WC WP OT TS		MATRIX CODE (see valid codes to left)		DATE		TIME		DATE		TIME	
SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		DATE		TIME		DATE		TIME		DATE	
ITEM #		DATE		TIME		DATE		TIME		DATE	
1		5/10/23		1435		2		2		2	
2		5/10/23		1510		2		2		2	
3		5/10/23		1543		11		11		11	
4		5/10/23		1545		14		14		14	
5		5/10/23		1545		14		14		14	
6		5/10/23		1545		14		14		14	
7		5/10/23		1545		14		14		14	
8		5/10/23		1545		14		14		14	
9		5/10/23		1545		14		14		14	
10		5/10/23		1545		14		14		14	
11		5/10/23		1545		14		14		14	
12		5/10/23		1545		14		14		14	
13		5/10/23		1545		14		14		14	
14		5/10/23		1545		14		14		14	
15		5/10/23		1545		14		14		14	
16		5/10/23		1545		14		14		14	
17		5/10/23		1545		14		14		14	
18		5/10/23		1545		14		14		14	
19		5/10/23		1545		14		14		14	
20		5/10/23		1545		14		14		14	
21		5/10/23		1545		14		14		14	
22		5/10/23		1545		14		14		14	
23		5/10/23		1545		14		14		14	
24		5/10/23		1545		14		14		14	
25		5/10/23		1545		14		14		14	
26		5/10/23		1545		14		14		14	
27		5/10/23		1545		14		14		14	
28		5/10/23		1545		14		14		14	
29		5/10/23		1545		14		14		14	
30		5/10/23		1545		14		14		14	
31		5/10/23		1545		14		14		14	
32		5/10/23		1545		14		14		14	
33		5/10/23		1545		14		14		14	
34		5/10/23		1545		14		14		14	
35		5/10/23		1545		14		14		14	
36		5/10/23		1545		14		14		14	
37		5/10/23		1545		14		14		14	
38		5/10/23		1545		14		14		14	
39		5/10/23		1545		14		14		14	
40		5/10/23		1545		14		14		14	
41		5/10/23		1545		14		14		14	
42		5/10/23		1545		14		14		14	
43		5/10/23		1545		14		14		14	
44		5/10/23		1545		14		14		14	
45		5/10/23		1545		14		14		14	
46		5/10/23		1545		14		14		14	
47		5/10/23		1545		14		14		14	
48		5/10/23		1545		14		14		14	
49		5/10/23		1545		14		14		14	
50		5/10/23		1545		14		14		14	
51		5/10/23		1545		14		14		14	
52		5/10/23		1545		14		14		14	
53		5/10/23		1545		14		14		14	
54		5/10/23		1545		14		14		14	
55		5/10/23		1545		14		14		14	
56		5/10/23		1545		14		14		14	
57		5/10/23		1545		14		14		14	
58		5/10/23		1545		14		14		14	
59		5/10/23		1545		14		14		14	
60		5/10/23		1545		14		14		14	
61		5/10/23		1545		14		14		14	
62		5/10/23		1545		14		14		14	
63		5/10/23		1545		14		14		14	
64		5/10/23		1545		14		14		14	
65		5/10/23		1545		14		14		14	
66		5/10/23		1545		14		14		14	
67		5/10/23		1545		14		14		14	
68		5/10/23		1545		14		14		14	
69		5/10/23		1545		14		14		14	
70		5/10/23		1545		14		14		14	
71		5/10/23		1545		14		14		14	
72		5/10/23		1545		14		14		14	
73		5/10/23		1545		14		14		14	
74		5/10/23		1545		14		14		14	
75		5/10/23		1545		14		14		14	
76		5/10/23		1545		14		14		14	
77		5/10/23		1545		14		14		14	
78		5/10/23		1545		14		14		14	
79		5/10/23		1545		14		14		14	
80		5/10/23		1545		14		14		14	
81		5/10/23		1545		14		14		14	
82		5/10/23		1545		14		14		14	
83		5/10/23		1545		14		14		14	
84		5/10/23		1545		14		14		14	
85		5/10/23		1545		14		14		14	
86		5/10/23		1545		14		14		14	
87		5/10/23		1545		14		14		14	
88		5/10/23		1545		14		14		14	
89		5/10/23		1545		14		14		14	
90		5/10/23		1545		14		14		14	
91		5/10/23		1545		14		14		14	
92		5/10/23		1545		14		14		14	
93		5/10/23		1545		14		14		14	
94		5/10/23		1545		14		14		14	
95		5/10/23		1545		14		14		14	
96		5/10/23		1545		14		14		14	
97		5/10/23		1545		14		14		14	
98		5/10/23		1545		14		14		14	
99		5/10/23		1545		14		14		14	
100		5/10/23		1545		14		14		14	
101		5/10/23		1545		14		14		14	
102		5/10/23		1545		14		14		14	
103		5/10/23		1545		14		14		14	
104		5/10/23		1545		14		14		14	
105		5/10/23		1545		14		14		14	
106		5/10/23		1545		14		14		14	
107		5/10/23		1545		14		14		14	
108		5/10/23		1545		14		14		14	
109		5/10/23		1545		14		14		14	
110		5/10/23		1545		14		14		14	
111		5/10/23		1545		14		14		14	
112		5/10/23		1545		14		14		14	
113		5/10/23		1545		14		14		14	
114		5/10/23		1545		14		14		14	
115		5/10/23		1545		14		14		14	
116		5/10/23		1545		14		14		14	
117		5/10/23		1545		14		14		14	
118		5/10/23		1545		14		14		14	
119		5/10/23		1545		14		14		14	
120		5/10/23		1545		14		14		14	
121		5/10/23		1545		14		14		14	
122		5/10/23		1545		14		14		14	
123		5/10/23		1545		14		14		14	
124		5/10/23		1545		14		14		14	
125		5/10/23		1545		14		14		14	
126		5/10/23		1545		14		14		14	
127		5/10/23		1545		14		14		14	
128		5/10/23		1545		14		14		14	
129		5/10/23		1545		14		14		14	
130		5/10/23		1545		14		14		14	
131		5/10/23		1545		14		14		14	
132		5/10/23		1545		14		14		14	
133		5/10/23		1545		14		14		14	
134		5/10/23		1545		14		14		14	
135		5/10/23		1545		14		14		14	
136		5/10/23		1545		14		14		14	
137		5/10/23		1545		14		14		14	
138		5/10/23		1545		14		14		14	
139		5/10/23		1545		14		14		14	
140		5/10/23		1545		14		14		14	
141		5/10/23		1545		14		14		14	
142		5/10/23		1545		14		14		14	
143		5/10/23		1545		14		14		14	
144		5/10/23		1545		14		14		14	
145		5/10/23		1545		14		14		14	
146		5/10/23		1545		14		14		14	
147		5/10/23		1545		14					

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

7 DC-257-203

Geo 2632
 Saw 5-12-23

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

Section D Required Client Information		Valid Matrix Codes		COLLECTED		RELINQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		SAMPLE CONDITIONS	
ITEM #	MATRIX CODE	MATRIX CODE (see valid codes to left)	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	Temp in °C
1	DC_BA01	WT 6	5/11/23	1333							5
2	DC_BA02										5
3	DC_BA02IL										
4	DC_BA03										
5	DC_BA03IL										
6	DC_BA04	WT 6	5/11/23	1146							
7	DC_BA05#										
8	DC_BA06										
9	DC_G02IL										
10	DC_G02#S										
11	DC_G02&D										
12	DC_G03IL										
13	DC_G04IL										
14	DC_G06IL										
15	DC_G06#S										
16	DC_G07IL										
DC-23Q2-Rev 0											

SAMPLE ID
(A-Z, 0-9 / .)

Sample IDs MUST BE UNIQUE

RELINQUISHED BY / AFFILIATION
[Signature]

DATE
5/11/23

TIME
1720

ACCEPTED BY / AFFILIATION
[Signature]

DATE
5/11/23

TIME
1720

SAMPLE CONDITIONS

Received on: 5/11/23

Custody (Y/N): /

Sealed Cooler (Y/N): /

Samples intact (Y/N): /

SAMPLER NAME AND SIGNATURE
[Signature]

PRINT Name of SAMPLER:
[Name]

SIGNATURE of SAMPLER:
[Signature]

DATE Signed (MM/DD/YYYY):
05/11/23

23

CHAIN-OF-CUSTODY / Analytical Request Document

JE02632
Vmw5-12-23

Page: 2 of 9

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

[illegible]

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

Page: 3 of 9

Page: 3 of 9Page: 3 of 9

CHAIN-OF-CUSTODY / Analytical Request Document

CHAIN-OF-CUSTODY / ANALYSIS REQUEST DOCUMENT
The Chain-of-Custody is a **LEGAL DOCUMENT**. All relevant fields must be completed accurately.

GE02634
VNW 5-12-23

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

Required Client Information:		Required Project Information:		Invoice Information:												
Company:	Vistra Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey											
Address:	13498 E. 900th St	Copy To:	Jason Stuckey	Company Name:	Vistra Corp											
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Address:	see Section A											
Phone:	(217) 753-8911	Project Name:		Quote Reference:												
Requested Due Date/TAT:	10 day	Project Number:	2285	Project Manager:												
				Profile #:												
Valid Matrix Codes		COLLECTED		SAMPLE TYPE (G=GRAAB C=COMP)		MATRIX CODE (see valid codes to left)		Section D Required Client Information								
MATRIX	CODE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Project No./ Lab I.D.							
GROUNDWATER	DW															
WASTE WATER	WW															
WASTE WATER	WW															
PRODUCT	P															
SOLID/ROD	SL															
CE	CE															
WPE	WPE															
AR	AR															
OT	OT															
TS	TS															
ITEM #	DC_G63#S	DC_G64IL	DC_G64#S	DC_G65IL	DC_G65#S	DC_G66IL	DC_G66#S	DC_G67IL	DC_G67#S	DC_G70IL	DC_G71IL	DC_G71#S	DC_G72IL	DC_G73IL	DC_L103	DC_OM01
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on	Custody	Sealed Cooler	Initial (Y/N)					
DC-23Q2-Rev 0		5/11/23	1720		5/11/23	17:20	6	4	2		4					
SAMPLER NAME AND SIGNATURE																
PRINT Name of SAMPLER:	DATE Signed (MM/DD/YYYY):															
SIGNATURE of SAMPLER:																

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: 5 of 8

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 8 of 9	
Company:	Visira Corp	Report To:	Jason Voelker	Attention:	Jason Stuckey		
Address:	13498 E. 900th St	Copy To:	Jason Stuckey	Company Name:	Visira Corp		
				Address:	see Section A		
				NPDES	GROUND WATER	DRINKING WATER	

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

Email To: Brian.Voelker@VisitraCom.com	Purchase Order No.:	Quota Reference:	<table border="1"> <tr> <td>LIST</td> <td>RCRA</td> <td>OTHER</td> </tr> <tr> <td colspan="2">Site Location</td> <td rowspan="2">IL</td> </tr> <tr> <td colspan="2">STATE:</td> </tr> </table>	LIST	RCRA	OTHER	Site Location		IL	STATE:	
LIST	RCRA	OTHER									
Site Location		IL									
STATE:											
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:									
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:									

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

DC-257-203

[illegible][illegible]

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:	Vistra Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey
Address:	13498 E. 900th St	Copy To:	Jason Stuckey	Company Name:	Vistra Corp
				Address:	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Quote Reference:	
REGULATORY AGENCY					
		NPDES	GROUND WATER	DRINKING WATER	
		UST	RCRA	OTHER	

29

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 9

Section A

Section B

Section C

Required Client Information: Company: <u>Visira Corp</u> Address: <u>13498 E. 900th St</u> Email To: <u>Brian.Voelker@VisiraCorp.com</u> Phone: (217) 753-8811 Fax: Requested Due Date/TAT: <u>10 day</u>		Required Project Information: Report To: <u>Brian Voelker</u> Copy To: <u>Jason Stuckey</u> Purchase Order No.: Project Name: Project Number: <u>2285</u>		Invoice Information: Attention: <u>Jason Stuckey</u> Company Name: <u>Visira Corp</u> Address: <u>see Section A</u> Quote Reference: Project Manager: Profile #:	
REGULATORY AGENCY NPDES: <u>GROUND WATER</u> <u>DRINKING WATER</u> <u>OTHER</u> UST: <u>RCRA</u> Site Location: <u>IL</u> STATE: <u>GEORGIA</u>		DC-257-203			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATERIAL CODE DRINKING WATER DW WASTE WATER WT PRECIPITATE P SOIL/SOLID SL OIL OL WIFE WIF OTHER OR TSSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
										DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_845_201-202	DC_845_203	DC_845_205	DC_CLOSURE_201-202	DC_SUP_000	DC_WPCP_203-206	
1	DC_BA01																			
2	DC_BA02																			
3	DC_BA02IL																			
4	DC_BA03																			
5	DC_BA03IL																			
6	DC_BA04																			
7	DC_BA05#																			
8	DC_BA06																			
9	DC_G02IL																			
10	DC_G02#S																			
11	DC_G02&D																			
12	DC_G03IL																			
13	DC_G04IL																			
14	DC_G06IL + FDDup																			
15	DC_G06#S																			
16	DC_G07IL																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-23Q2-Rev 0	Jason R Reed	5/12/23	14:31	Jason R Reed	5/12/23	14:31	Temp in °C: 20 Received on: 5/12/23 Ice (Y/N): Custody Cooler (Y/N): Samples Intact (Y/N):

SAMPLER NAME AND SIGNATURE	
PRINT NAME of SAMPLER:	DATE Signed (MM/DD/YYYY):
SIGNATURE of SAMPLER:	

CHAIN-OF-CUSTODY / Analytical Request Document

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

Page: 2 of 9

DC-257-208

Section A
Required Client Information:

Company: **Visira Corp**
Address: **13498 E. 900th St**
Email To: **Brian.Voelker@VisiraCorp.com**
Phone: **(217) 753-8911** Fax:
Requested Due Date/TAT: **10 day**

Section B
Required Project Information:

Report To: **Brian Voelker**
Copy To: **Jason Stuckey**
Purchase Order No.:
Project Name:
Project Number: **2285**

Section C
Invoice Information:

Attention: **Jason Stuckey**
Company Name: **Visira Corp**
Address: **see Section A**
Quote Reference:
Project Manager:
Profile #:

Section D
Required Client Information:

Valid Matrix Codes
MATRIX CODE
DW DRINKING WATER
WT WASTE WATER
WW WASTE WATER
P PRODUCT
SL SOLID
SL SOLID
VLS VLS
VLS VLS
AIR AIR
CT CT
TS TISSUE

Section E
Requested Analysis Filtered (Y/N)

Requested Analysis Filtered (Y/N)

ITEM #	MATRIX CODE	DATE	TIME	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED	# OF CONTAINERS	Preservatives	Analysis Test	DATE	TIME	DATE	TIME	Temp in °C	Received on	Custody	Sealed Cooler	Samples
1	DC_G08IL																
2	DC_G09IL																
3	DC_G12IL																
4	DC_G12HS																
5	DC_G14IL																
6	DC_G15IL																
7	DC_G16IL																
8	DC_G50IL																
9	DC_G50HS																
10	DC_G51IL																
11	DC_G51HS																
12	DC_G52IL																
13	DC_G52HS																
14	DC_G53IL																
15	DC_G53HS																
16	DC_G54IL																

Additional Comments: **DC-23Q2-Rev 0**

Relinquished By / Affiliation: **Jason Stuckey** Date: **5/12/23** Time: **14:31**

Accepted By / Affiliation: **Jason Stuckey** Date: **5/12/23** Time: **14:31**

Temp in °C: **22.8**

Received on: **5/12/23**

Custody: **See field**

Sealed Cooler: **See field**

Samples: **See field**

Signature of Sampler: **Jason Stuckey** Date Signed (MM/DD/YY): **5/12/23**

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
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

Page: 3 of 9

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

Section D Required Client Information		Valid Matrix Codes		Matrix CODE		SAMPLE TYPE (G=GRAB C=COMP)		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Requested Analysis Filtered (Y/N)		Project No./ Lab ID.	
ITEM #	SAMPLE ID (A-Z, 0-9 / -)	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
1	DC_G54#S-F	FW	FW	FW	FW	FW	FW	5/12/23	1304	24									
2	DC_G55IL	FW	FW	FW	FW	FW	FW												
3	DC_G55#S	FW	FW	FW	FW	FW	FW												
4	DC_G56IL	FW	FW	FW	FW	FW	FW												
5	DC_G56#S	FW	FW	FW	FW	FW	FW												
6	DC_G57IL	FW	FW	FW	FW	FW	FW												
7	DC_G57#S	FW	FW	FW	FW	FW	FW												
8	DC_G58IL	FW	FW	FW	FW	FW	FW												
9	DC_G58#S	FW	FW	FW	FW	FW	FW												
10	DC_G59IL	FW	FW	FW	FW	FW	FW												
11	DC_G59#S	FW	FW	FW	FW	FW	FW												
12	DC_G60IL	FW	FW	FW	FW	FW	FW	5/12/23	1048	10									
13	DC_G60#S	FW	FW	FW	FW	FW	FW	5/12/23	1100	12									
14	DC_G61#S	FW	FW	FW	FW	FW	FW												
15	DC_G62IL	FW	FW	FW	FW	FW	FW												
16	DC_G63IL	FW	FW	FW	FW	FW	FW												

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-23Q2-Rev 0		Joseph R. Reed	5/12/23	1431	grace	5/12/23	14:31	Temp in °C
								Received on
								Sealed Cooler
								Samples

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)
PRINT Name of SAMPLER:	Joseph R. Reed	5/12/23
SIGNATURE of SAMPLER:	Joseph R. Reed	5/12/23

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
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

DC-257-203

Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A		NPDES		GROUND WATER		DRINKING WATER	
Phone: (217) 753-8911		Project Name:		Reference:		UST		RCRA		OTHER	
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:		Site Location		IL			
Valid Matrix Codes		MATRIX CODE		SAMPLE TYPE (G-GRAB C-COMP)		COLLECTED		DATE		TIME	
DRINKING WATER WASTE WATER WASTE WATER PRODUCT SOIL SOLID OIL WIFE AIR OTHER ISSUE		DW WT WM P SL CL WP AK OT TS									
Section D Required Client Information		SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		MATRIX CODE (see valid codes to left)		SAMPLE TYPE (G-GRAB C-COMP)		DATE		TIME	
ITEM #		DC_P01#L						5/12/23		1030	
1		DC_P01#S						5/12/23		1241	
2		DC_P01#I									
3		DC_P02#S									
4		DC_P04#S									
5		DC_P05#L									
6		DC_P05#S									
7		DC_P05&D									
8		DC_P36#L									
9		DC_P36#S									
10		DC_P36&D									
11		DC_P37#L									
12		DC_P37&D									
13		DC_P38#L									
14		DC_P38#S									
15		DC_P39#L									
16											
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE	
DC-23Q2-Rev 0		Jason R. Reed		5/12/23		1431		Jason R. Reed		5/12/23 1431	
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER		SIGNATURE of SAMPLER		DATE Signed (MM/DD/YYYY)		Temp in °C		Received on	
Jason R. Reed		Jason R. Reed		Jason R. Reed		5/12/23		2		2	
Samples Intact (Y/N)		Sealed Cooler (Y/N)		Custody (Y/N)		Received on		Temp in °C		Received on	
Y		Y		Y		Y		Y		Y	

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: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey	
Address: 13488 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp	
				Address: see Section A	
				NPDES	
				GROUND WATER	
				DRINKING WATER	
				REGULATORY AGENCY	
				Page: 8 of 9	

APPENDIX A.

- ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
- DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

DC-257-203

Project Name:		Site Location		IL																					
Phone: (217) 753-8011 Fax:		Project Manager:		STATE:																					
Requested Due Date/TAT: 10 day		Project Number: 2285		Requested Analysis Filtered (Y/N)																					
ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER CW WATER WATER WT WASTE WATER WW PRODUCT P SOLID/SOLID SL OIL OIL WIFE WP AIR AR OTHER OT TISSEU TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Analysis Test ↑ Y/N	DC_257_203	DC_257_204	DC_845_201-202	DC_845_203	DC_845_205	DC_CLOSURE_201-202	DC_SUP_000	DC_WPCP_203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.						
1			DC_T44IL																						
2			DC_T45IL																						
3			DC_T46IL																						
4			DC_X301_leachate																						
5			EB-6		5/6/23	1036																			
6			EB-7		5/12/23	1245																			
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16																									
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS		Temp in °C		Received on		Ice (Y/N)		Custody Sealed Cooler (Y/N)		Samples Intact (Y/N)	
DC-23Q2-Rev 0		Joseph R Red		5/6/23		14:31		Joseph R Red		5/12/23		14:31		2		2		2		4		2		4	
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):		5/12/23		5/12/23		14:31		5/12/23		14:31		5/12/23		5/12/23		5/12/23		5/12/23	

GE023041
Vnu 5-16-23

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

DC-257-203

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

Page: 2 of 9

Section C

Invoice Information:
Attention: Jason Stuckey
Company Name: Vistra Corp
Address: see Section A
Quote Reference:
Project Manager:
Profile #:

Section B
Required Project Information:
Report To: Jason Stuckey
Copy To: Jason Stuckey
Purchase Order No.:
Project Name:
Project Number: 2285

Section A
Required Client Information:
Company: Vistra Corp
Address: 13498 E. 900th St
Email To: Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911 Fax:
Requested Due Date/TAT: 10 day

REGULATORY AGENCY	
NPOES	GROUND WATER
UST	RCRA
Site Location	OTHER
IL	
STATE:	

ITEM #	Section D Required Client Information	Valid Matrix Codes		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		MATRIX	CODE			DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	DC_257_203	DC_257_204		DC_257_205	DC_811_204	DC_845_201-202	DC_845_203	DC_845_205	DC_CLOSURE_201-202	DC_SUP_000	DC_WPCP_203-206																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								</

RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS	
Joseph R. Paul		5/15/23	1800	Van Hegen		5-16-23	650	Received on 03	
Joseph R. Paul		5/15/23		Van Hegen		5-16-23		Sealed Cooler Y/N	
Joseph R. Paul		5/15/23		Van Hegen		5-16-23		Intact (Y/N)	

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Joe Reed
SIGNATURE of SAMPLER:	Joseph R. Paul
DATE Signed (MM/DD/YYYY):	5/15/23

CHAIN-OF-CUSTODY / Analytical Request Document
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

0502491
Vmw 5-16-23

Page: 3 of 9

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

DC-257-203

Section A

Section B

Section C

Required Client Information:		Required Project Information:		Invoice Information:	
Company:	Vistra Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey
Address:	13498 E. 900th St	Copy To:	Jason Stuckey	Company Name:	Vistra Corp
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Address:	see Section A
Phone:	(217) 753-8911	Project Name:		Order Reference:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Project Manager:	
				Profile #:	

Section D Required Client Information		Valid Matrix Codes		COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)		MATRIX CODE (see valid codes to left)		SAMPLE TEMP AT COLLECTION		PRESERVATIVES		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #		MATRIX CODE	DRINKING WATER WATER WASTE WATER PRODUCT SOLIDWASTE WASTE AIR OTHER TSS	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
1		DC_G54#S															
2		DC_G55IL															
3		DC_G55#S															
4		DC_G56IL															
5		DC_G56#S															
6		DC_G57IL															
7		DC_G57#S															
8		DC_G58IL															
9		DC_G58#S															
10		DC_G59IL															
11		DC_G59#S															
12		DC_G60IL															
13		DC_G60#S															
14		DC_G61#S															
15		DC_G61#S															
16		DC_G61#S															

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)	
PRINT NAME OF SAMPLER:	Joseph A. Reed	DATE SIGNED	5/15/23
SIGNATURE OF SAMPLER:	<i>Joseph A. Reed</i>		

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)	
PRINT NAME OF SAMPLER:	Joe Reed	DATE SIGNED	5/15/23
SIGNATURE OF SAMPLER:	<i>Joe Reed</i>		

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)	
PRINT NAME OF SAMPLER:	Joe Reed	DATE SIGNED	5/15/23
SIGNATURE OF SAMPLER:	<i>Joe Reed</i>		

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)	
PRINT NAME OF SAMPLER:	Joe Reed	DATE SIGNED	5/15/23
SIGNATURE OF SAMPLER:	<i>Joe Reed</i>		

6502997
vnu 5-16-23

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

Required Client Information:		Required Project Information:		Invoice Information:	
Company:	Vistra Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey
Address:	13498 E. 900th St	Copy To:	Jason Stuckey	Company Name:	Vistra Corp
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Address:	see Section A
Phone:	(217) 753-9911	Project Name:		State:	IL
Requested Due Date/TAT:	10 day	Project Number:	2285	Site Location:	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WWT WASTEWATER WW PRODUCT P SOIL/SOLID OIL OL WPE 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 Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Analysis Test ↑	Y	N													Residual Chlorine (Y/N)	Project No./ Lab I.D.	
					DATE	TIME							DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_845_201-202	DC_845_203	DC_845_205	DC_CLOSURE_201-202	DC_SUP_000	DC_WPCP_203-206					
1		DC_G63#S			5/15/23	1500		12																			
2		DC_G64#L																									
3		DC_G64#S																									
4		DC_G65#L																									
5		DC_G65#S																									
6		DC_G66#L																									
7		DC_G66#S																									
8		DC_G67#L																									
9		DC_G67#S																									
10		DC_G70#L																									
11		DC_G71#L																									
12		DC_G71#S																									
13		DC_G72#L																									
14		DC_G73#L																									
15		DC_L103																									
16		DC_OM01																									

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
DC-23Q2-Rev 0		Jason R. Reed		5/15/23		1800		Vanna Wayner		5-16-23		650		Y N Y	
SAMPLER NAME AND SIGNATURE															
PRINT Name of SAMPLER: Jason R. Reed															
SIGNATURE of SAMPLER: [Signature]															
DATE Signed (MM/DD/YYYY): 5/15/23															

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
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

6702997
Vmw 5-16-23

Company: Visira Corp	Report To: Brian Voelker	Attention: Jason Stuckey
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Visira Corp
Email To: Brian.Voelker@VisiraCorp.com	Purchase Order No.:	Address: see Section A
Phone: (217) 753-8911	Project Name:	State: IL
Requested Due Date/TAT: 10 day	Project Number: 2285	Site Location

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DW WT WW P SL OIL WIP AIR OTHER TISUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB Q=COMP)	COLLECTED	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
												DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_845_201-202	DC_845_203	DC_845_205	DC_CLOSURE_201-202	DC_SUP_000	DC_WPCP_203-205	
1	DC_OM04#S																					
2	DC_OM05#S																					
3	DC_OM07																					
4	DC_OM08																					
5	DC_OM09																					
6	DC_OM10		495-16-23			5/15/23	1314		10													
7	DC_OM12					5/15/23	1405		11													
8	DC_OM15																					
9	DC_OM16																					
10	DC_OM17																					
11	DC_OM21					5/15/23	1324		10													
12	DC_OM22#S																					
13	DC_OM22&D																					
14	DC_OM23#S																					
15	DC_OM23&D																					
16	DC_OM24&D					5/15/23	1600		10													

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	DATE Signed (MM/DD/YY):
SIGNATURE of SAMPLER:	

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: Visira Corp	Report To: Brian Voelker	Attention: Jason Stuckey

DC-257-203

DC-23Q2-Rev 0

✓

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

Page: 7 of 9

Duck Creek

WELL/SAMPLE POINT **G02S**

Purge Method: Dechlorinated Pump

Date: 5-15-23 Start Time: 13:48 Finish/Sample Time: 15:18

Well Depth (Bottom) From MP: 29.06 ft Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 7.79 ft Total Purge Volume: 1.3 Gal / L

Water Column Length: 21.27 ft Max Drawdown: NA ft

Well Water Volume: 3.4 Gal / L Total Drawdown: 0.99 ft

14.27

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	14:11	8.75	100	6.87	649	14.27	-106	4.14	22.0
2	14:12	8.75	100	6.85	648	14.40	-105	4.22	19.4
3	14:13	8.76	100	6.85	640	14.32	-104	4.12	19.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

HORBA

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) 1000 mL
1	2.5, 6,

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL) 1000 mL
3	TOC 40 mL

Final DTW: 8.78 ft

Comments: NA Couldn't connect to well over HOBO cannot
dis iron overance / got the data after sampling well
well SN-21615554

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G50S

Purge Method:

Dedicated Pump

Date: 5-15-23

Start Time: 11:29

Finish/Sample Time: 12:56

Well Depth (Bottom) From MP: 37.30 ft

Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 12.10 ft

Total Purge Volume: 1.3 Gal / L

Water Column Length: 25.20 ft

Max Drawdown: Na ft

Well Water Volume: 4.0 Gal / L

Total Drawdown: 5.4 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	11:48	13:73	100	7.24	312	14.27	-103	6.87	90.4
2	11:49	14:11	100	7.25	562	14.15	-103	6.98	80.0
3	11:50	14:05	100	7.26	561	14.09	-103	6.81	66.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) 1000, mL
1	2.5, L, HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2SO4)
1	General (P, 500mL) 1000, mL
3	TOC, 40, mL

Final DTW:

17.24 ft

Comments

NA

DIS 1700-20.194

Sampler's Signature:

[Signature]

Duck Creek

WELL/SAMPLE POINT G51S

Purge Method: dedicated pump

Date: 5-15-23 Start Time: 10:02 Finish/Sample Time: 11:26

Well Depth (Bottom) From MP: 32.17 ft Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 09.95 ft Total Purge Volume: 1.3 Gal / L

Water Column Length: 22.22 ft Max Drawdown: NA ft

Well Water Volume: 3.5 Gal / L Total Drawdown: 7.28 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	10:23	12.02	100	7.14	601	13.75	-54	1.40	556
2	10:24	12.02	100	7.13	602	13.61	-54	1.33	530
3	10:25	12.03	100	7.12	600	13.64	-53	1.26	430
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Qty	Unfiltered Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P,250 mL) 1000 mL
1	2.5, L, HNO3

Qty	Filtered Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2SO4)
1	General (P,250mL) 1000 mL
3	TOC 40 mL

Final DTW: 17/23 ft

Comments

NA
Dis iron → 0.182

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT **G54L**

Purge Method: **portable pump**

Date: **5-11-23** Start Time: **11:07** Finish/Sample Time: **1220**

Well Depth (Bottom) From MP: **40.30 ft** ✓
Depth to Water From MP: **22.40 ft**
Water Column Length: **17.90 ft**
Well Water Volume: **10.84 Gal** (U)
Min. Purge Volume: **1000 Gal / L** (mL)
Total Purge Volume: **1800 Gal / L** (mL)
Max Drawdown: **NA** ft
Total Drawdown: **2.95** ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1118	24.35	100	6.54	1486.3	20.32	-40.1	1.05	94.33
2	1119	24.37	100	6.55	1495.1	20.34	-38.8	1.06	106.77
3	1121	24.39	100	6.54	1504.9	20.37	-37.5	1.04	129.58
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: **Hanlon Aquatro/1600**
3rd 5/12

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	P1000 mL
1	P2.5L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
3	TOC
1	P1000 mL
3.787	Soluble Iron ²⁺

ppm Final DTW: **25.35** ft

Comments

Sampler's Signature: **[Signature]**

3rd 5/12

WELL/SAMPLE POINT **G54S**

Purge Method: Dedicated Pump

Date: 5-12-23 Start Time: 10:56 Finish/Sample Time: 13:04

Well Depth (Bottom) From MP: 51.26 ft
Depth to Water From MP: 23.40 ft
Water Column Length: 27.84 ft
Well Water Volume: 4.4 Gal / L

Min. Purge Volume: 1.0 Gal / 10
Total Purge Volume: 1.3 Gal / 10
Max Drawdown: Na ft
Total Drawdown: 9.40 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	11:17	25.30	100	6.82	798	16.40	-22	1.47	49.0
2	11:18	25.40	100	6.76	797	16.31	-26	1.34	44.8
3	11:19	25.48	100	6.73	796	16.34	-30	1.24	40.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
7+3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1+1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1+1	General (P, 250 mL) 1000, ML
1+1	2.5, L, HNO3

Filtered	
Qty	Bottles
1+1	Metals (P,250mL, HNO3)
4+1	Ammonia (P,250mL, H2SO4)
1+1	General (P, 250 mL) 1000, ML
3+3	TOC, 40, ML

Final DTW: 32.80 ft

Comments DIS IRON - 2.778
FD was grabby

Sampler's Signature: [Signature]

WELL/SAMPLE POINT G57S

Purge Method: Dedicated pump

Date: 5/11/23 Start Time: 1410 Finish/Sample Time: 1522

Well Depth (Bottom) From MP: 37.40 ft Min. Purge Volume: 1000 Gal / L (4L)

Depth to Water From MP: 20.25 ft Total Purge Volume: 1800 Gal / L (4L)

Water Column Length: 17.15 ft Max Drawdown: _____ ft

Well Water Volume: 10.39 Gal (1) Total Drawdown: 0.50 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1421	20.75	100	6.86	1289.2	17.70	124.6	2.61	50.46
2	1422	20.75	100	6.85	1260.2	17.74	124.7	2.58	44.15
3	1424	20.75	100	6.87	1281.3	17.71	124.7	2.55	46.85
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Ametrol 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	P 2.5L HNO3
1	P 1000 mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
3	Toc
1	P 1000 mL
0.012	Soluble Iron ²⁺

ppm Final DTW: 20.75 ft

Comments

Sampler's Signature: [Signature]

WELL/SAMPLE POINT G60L

Purge Method: Dedicated PUMP

Date: 5-12-23 Start Time: 09:31 Finish/Sample Time: 10:48

Well Depth (Bottom) From MP: 27.00 ft Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 12.27 ft Total Purge Volume: 1.0 Gal / L

Water Column Length: 14.73 ft Max Drawdown: NA ft

Well Water Volume: 2.3 Gal / L Total Drawdown: 7.64 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	09:45	15.30	100	5.99	725	13.77	262	2.66	27.1
2	09:46	15.30	100	5.99	720	13.78	254	2.59	23.0
3	09:47	15.32	100	5.97	720	13.66	242	2.45	15.4
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: MoriBa

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C.V. 40mL, HCL)
	VOAS (C.V. 40mL)
	Organics (A.G.U 1000mL)
	Organics (A.G.U 500mL)
3	TOC (A.V 40mL, H2SO4)
	TOX (A.G 250mL, H2SO4)
1	Metals (P, 250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A.G, 250mL, H2SO4)
1	General (P, 250mL) 1000 mL
1	2.5, L, HNO3

Filtered	
Qty	Bottles
1	Metals (P, 250mL, HNO3)
1	Ammonia (P, 250mL, H2SO4)
1	General (P, 250mL) 1000 mL
1	TOC, 40, mL

Final DTW: 19.91 ft

Comments: Dis. Iron = 0.524

Sampler's Signature: [Signature]

WELL/SAMPLE POINT G60S

Purge Method: Portable pump

Date: 5/12/23 Start Time: 0930 Finish/Sample Time: 1100
 Well Depth (Bottom) From MP: 320 5/12 ~~30.20~~ ft 39.47
 Depth to Water From MP: 25.28 ft
 Water Column Length: 14.19 ft
 Well Water Volume: 8.59 Gal / L
 Min. Purge Volume: 1000 Gal / L (2)
 Total Purge Volume: 1800 Gal / L (2)
 Max Drawdown: _____ ft
 Total Drawdown: 0.70 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1000	25.87	100	6.81	953.68	17.56	-20.8	1.21	>1000
2	1001	25.88	100	6.81	952.90	17.59	-20.7	1.21	>1000
3	1003	25.90	100	6.81	955.61	17.61	-21.7	1.20	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aqualog 600

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	P 1000 mL
1	P 2.5L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
3	Toc
1	P 1000 mL
6,506	Soluble Iron ⁺²

ppm

Final DTW: 25.98 ft

Comments Dedicated bladder pump doesn't work, used portable pump

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G60S

Purge Method:

portable pump with dedicated tubing

Date: 5/17/2023 Start Time: 0935 Finish/Sample Time: 1027

Well Depth (Bottom) From MP: 39.20 ft Min. Purge Volume: 1000 Gal / L (mL)
Depth to Water From MP: 25.40 ft Total Purge Volume: 1000 Gal / L (mL)
Water Column Length: 13.80 ft Max Drawdown: - ft
Well Water Volume: 8.35 Gal (L) Total Drawdown: 1.08 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1014	26.84	100	6.70	790	16.36	2	1.32	71000
2	1016	26.84	100	6.68	803	16.26	-6	1.24	71000
3	1018	26.84	100	6.67	805	16.24	-11	1.17	71000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☐ Mod. ☒ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL) 150mL

Final DTW: 26.48 ft

Comments Transducer S/N 21615677 Resample
Dedicated pump does not work, had to use portable pump to sample

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT **G64S**

Purge Method: ~~portable pump~~ **KL**
Dedicated Pump

Date: **5-11-23** Start Time: **13:32** Finish/Sample Time: **15:11**

Well Depth (Bottom) From MP: **39.50** ft **13:45**
Depth to Water From MP: **23.26** ~~22.84~~ ft
Water Column Length: **16.27** ft
Well Water Volume: **2.59** Gal / L
Min. Purge Volume: **1.0** Gal / L
Total Purge Volume: **1.3** Gal / L
Max Drawdown: **NA** ft
Total Drawdown: **0.40** ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	13:59	24.11	100	6.86	792	16.46	-37	4.87	86.1
2	14:00	24.15	100	6.87	780	16.51	-36	4.78	80.8
3	14:07	24.11	100	6.86	765	16.42	-33	4.63	48.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: **HORIBA**

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P,250 mL) 1000 ML
1	2.5 L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2SO4)
1	General (P,250mL) 1000
3	TOC 40 mL

Final DTW: **24.16** ft

Comments

Metals → 1.765
Reading

Sampler's Signature: **[Signature]**

Duck Creek

WELL/SAMPLE POINT **G64L**

Purge Method:

portable pump with flexible tubing

Date: *5-11-23*

Start Time:

10:56

Finish/Sample Time: *1500*

Well Depth (Bottom) From MP:

30.46 ft *30.44*

Min. Purge Volume:

1000 Gal / L *(L)*

Depth to Water From MP:

21.17 ft

Total Purge Volume:

1000 Gal / L *(L)*

Water Column Length:

9.27 ft

Max Drawdown:

ft

Well Water Volume:

5.61 Gal *(L)*

Total Drawdown:

1.60 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	<i>1400</i>	<i>22.00</i>	<i>100</i>	<i>7.02</i>	<i>970</i>	<i>16.17</i>	<i>132</i>	<i>3.92</i>	<i>280</i>
2	<i>1402</i>	<i>22.10</i>	<i>100</i>	<i>7.00</i>	<i>961</i>	<i>16.30</i>	<i>132</i>	<i>3.87</i>	<i>299</i>
3	<i>1404</i>	<i>22.20</i>	<i>100</i>	<i>6.99</i>	<i>958</i>	<i>16.11</i>	<i>133</i>	<i>3.87</i>	<i>259</i>
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Yoricon

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
<i>3</i>	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
<i>1</i>	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
<i>1</i>	General (P, 250mL) 1000mL
<i>1</i>	(P, 250mL, HNO3)

(12)

Filtered	
Qty	Bottles
<i>1</i>	Metals (P,250mL, HNO3)
<i>1</i>	Ammonia (P,250mL, H2SO4)
<i>1</i>	General (P,500mL) 1000mL
<i>3</i>	TOC (A,V, 40mL, H2SO4)

Final DTW: *22.77* ft

Comments *Transducer S/N - 21615688* *855 Iron²⁺ - 0.064 ppm*

Sampler's Signature:

[Signature]

Duck Creek

WELL/SAMPLE POINT **X301 Pump House**

Purge Method:

Boiler

Date: 5-10-23 Start Time: 15:32 Finish/Sample Time: 15:43

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	15:33			6.76	16.8	22.18	16.8	11.82	0
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250mL) 1000 mL
1	2.5 L HNO3

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P, 250mL) 1000 mL
3	TOC 40 mL

Comments NA, 2.5 L HNO3

Sampler's Signature:

[Signature]

Duck Creek

WELL/SAMPLE POINT **X301 Pump House**

Purge Method: boiler

Date: 5/16/2023 Start Time: 1535 Finish/Sample Time: 1539

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1537	—	—	6.79	17,100	22.75	163	7.42	9.5
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) 150mL

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Comments

Resample

Sampler's Signature:



Multiparameter Meter Field Calibration Checklist									
Field Personnel: <i>Arnon Runkelton</i>				Location: <i>Duck Creek</i>					
Weather: <i>67°-78° Sunny Wind SE 9 mph</i>				Environment: <i>grass, dirt, trees</i>					
Multiparameter Water Meter		Make: <i>AT</i>	Model: <i>600</i>	Serial Number: <i>762193</i>					
Water Level Meter		Make: <i>Hero</i>	Model: <i>Digust</i>	Serial Number: <i>3217-T</i>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<i>4.08</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	L344-09	12/14/2023
pH 7.00a	<i>7.01</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>I</i>	<i>I</i>	MSI	L343-07	12/9/2023
pH 10.00a	<i>10.01</i>	s.u.	±0.1 s.u.	<i>I</i>	<i>I</i>	<i>I</i>	MSI	M082-04	3/25/2024
SC Zero (DI)	<i>19.63</i>	µS/cm	0-25 µS/cm	<i>I</i>	<i>I</i>	<i>I</i>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<i>1995.5</i>	µS/cm	±5%	<i>I</i>	<i>I</i>	<i>I</i>	Geotech	2GE1442	May-23
ORP	<i>224.6</i>	mV	±15 mV	<i>I</i>	<i>I</i>	<i>I</i>	InSitu	2G1762	Jun-23
DO (Zero pt)	<i>0.09</i>	mg/L	±0.1	<i>I</i>	<i>I</i>	<i>I</i>	Macron	#000228049	8/26/2025
DO (Saturated)	<i>99.87</i>	%	97-100%	<i>I</i>	<i>I</i>	<i>I</i>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<i>0.00</i>	NTU	<2 NTU	<i>I</i>	<i>I</i>	<i>I</i>	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time: <i>0942</i>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<i>4.00</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>N/A</i>	Geotech	2GE870	Mar-24	
pH 7.00b	<i>6.83</i>	s.u.	±0.15 s.u.	<i>I</i>	<i>I</i>	Geotech	2GC931	Mar-24	
pH 10.00b	<i>10.67</i>	s.u.	±0.15 s.u.	<i>I</i>	<i>I</i>	Geotech	2GE820	May-24	
SC 1000	<i>1005.2</i>	µS/cm	±5%	<i>I</i>	<i>I</i>	Ricca	4207N97	Jul-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: <i>1539</i>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<i>4.03</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	L344-09	12/14/2023
pH 7.00a	<i>7.00</i>	s.u.	±0.1 s.u.	<i>I</i>	<i>I</i>	<i>I</i>	MSI	L343-07	12/9/2023
pH 10.00a	<i>10.06</i>	s.u.	±0.1 s.u.	<i>I</i>	<i>I</i>	<i>I</i>	MSI	M082-04	3/25/2024
SC 1000	<i>1002.7</i>	µS/cm	±5%	<i>I</i>	<i>I</i>	<i>I</i>	Ricca	4207N97	Jul-24
DO (Zero pt)	<i>0.09</i>	mg/L	±0.1 mg/L	<i>I</i>	<i>I</i>	<i>I</i>	Macron	#000228049	8/26/2025
Turbidity (DI)	<i>0.00</i>	NTU	<2 NTU	<i>I</i>	<i>I</i>	<i>I</i>	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Comments:									
Signature: <i>[Signature]</i>					Date: <i>5/10/2023</i>				

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Brendan Galenron</u>			Location: <u>Duck Creek</u>		
Weather: <u>64° Mostly Cloudy 8mph NW</u>			Environment: <u>Grass Field</u>		
Multiparameter Water Meter	Make: <u>AT</u>	Model: <u>600</u>	Serial Number: <u>762215</u>		
Water Level Meter	Make: <u>Heron</u>	Model: <u>200 ft.</u>	Serial Number: <u>19FF2111 92HB</u>		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>8.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.97</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>16.21</u>	µS/cm	0<25 µS/cm	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1916.5</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Geotech	2GE1442	May-23
ORP	<u>234.6</u>	mV	±15 mV	<u>I</u>	<u>I</u>	<u>I</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.10</u>	mg/L	±0.1	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>98.81</u>	%	97-100%	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0910</u>		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>8.89</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.86</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>9.85</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GE820	May-24
SC 1000	<u>993.41</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1500</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>8.97</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.91</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1016.21</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.10</u>	mg/L	±0.1 mg/L	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>Brendan Galenron</u>	Date: <u>5/10/23</u>
------------------------------------	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: V. str. Duck Creek					
Weather: 70-79°F sunny wind ESE 9-16 mph				Environment: woods					
Multiparameter Water Meter		Make: Hanna	Model: U-5000	Serial Number: V401FVTF					
Water Level Meter		Make: Hanna	Model: D'aper-T	Serial Number: 19FF2202131ML					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.91	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC Zero (DI)	9	µS/cm	0<25 µS/cm	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	µS/cm	±5%	I	I	I	Geotech	2GE1442	May-23
ORP	232	mV	±15 mV	I	I	I	InSitu	2G1762	Jun-23
DO (Zero pt)	0.08	mg/L	±0.1	I	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	98.28	%	97-100%	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	18	NTU	<2 NTU	Fail	Yes	0.0	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 1021			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.99	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24	
pH 7.00b	6.98	s.u.	±0.15 s.u.	I	I	Geotech	2GC931	Mar-24	
pH 10.00b	9.92	s.u.	±0.15 s.u.	I	I	Geotech	2GE820	May-24	
SC 1000	798	µS/cm	±5%	Fail	cal. by H.	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 1550			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC 1000	1040	µS/cm	±5%	I	I	I	Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	I	I	I	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	I	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: 	Date: 5/10/23
--	---------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyle LANE				Location: Duck Creek					
Weather: 55° to 81° Sunny				Environment: Dry					
Multiparameter Water Meter		Make: HANNA	Model: V-5000	Serial Number: YL9KJ9 HIA					
Water Level Meter		Make: HANNA	Model: WaterPro	Serial Number: 11F2209305 ML					

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	M082-04	3/25/2024
SC Zero (DI)	10.60	µS/cm	0<25 µS/cm	P	N/A	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2.010	µS/cm	±5%	P	N/A	N/A	Geotech	2GE1442	May-23
ORP	218	mV	±15 mV	P	N/A	N/A	InSitu	2G1762	Jun-23
DO (Zero pt)	0.89	mg/L	±0.1	P	N/A	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	99.40	%	97-100%	P	N/A	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	N/A	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 10:04				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24	
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	N/A	Geotech	2GC931	Mar-24	
pH 10.00b	9.87	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE820	May-24	
SC 1000	1030	µS/cm	±5%	P	N/A	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: N/A				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 15:48				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.02	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L344-09	12/14/2023
7.00a	6.93	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L343-07	12/9/2023
10.00a	9.98	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	M082-04	3/25/2024
SC 1000	1060	µS/cm	±5%	P	N/A	N/A	Ricca	4207N97	Jul-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L	P	N/A	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.50	NTU	<2 NTU	P	N/A	N/A	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: [Signature]	Date: 5-10-2023
-------------------------------	------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed			Location:	Duck Creek				
Weather:				Environment:					
Multiparameter Water Meter	Make:	Horiba	Model:	u5000	Serial Number:	PW2G YJD3			
Water Level Meter	Make:	Solinst	Model:	101	Serial Number:	P7/LM2			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	N		Geotech	2GE1442	May-23
ORP	239	mV	±15 mV	P	N		InSitu	2G1762	Jun-23
DO (Zero pt)	0.05	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.1	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time: 1000				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	Mar-24	
pH 7.00b	6.99	s.u.	±0.15 s.u.	P	N	Geotech	2GC931	Mar-24	
pH 10.00b	9.95	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24	
SC 1000	990	µS/cm	±5%	P	N	Ricca	4207N97	Jul-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: 1509				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC 1000	1020	µS/cm	±5%	P	N		Ricca	4207N97	Jul-24
DO (Zero pt)	0.05	mg/L	±0.1 mg/L	P	N		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Comments:									
Signature:	Joe R Reed			Date:	5/10/23				

Multiparameter Meter Field Calibration Checklist

Field Personnel: <i>Arden Kimberlin</i>		Location: <i>Duck Creek</i>	
Weather: <i>73°-74° Sunny w/n SE 8 mph</i>		Environment: <i>grass, dirt</i>	
Multiparameter Water Meter	Make: <i>Horiba</i>	Model: <i>U5000</i>	Serial Number: <i>04U1FVTF</i>
Water Level Meter	Make: <i>Merom</i>	Model: <i>D:PART</i>	Serial Number: <i>19FF211192HB</i>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<i>4.00</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>N/A</i>	<i>N/A</i>	MSI	L344-09	12/14/2023
pH 7.00a	<i>7.01</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>N/A</i>	<i>N/A</i>	MSI	L343-07	12/9/2023
pH 10.00a	<i>10.00</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>N/A</i>	<i>N/A</i>	MSI	M082-04	3/25/2024
SC Zero (DI)	<i>18</i>	µS/cm	0<25 µS/cm	<i>P</i>	<i>N/A</i>	<i>N/A</i>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<i>2000</i>	µS/cm	±5%	<i>P</i>	<i>N/A</i>	<i>N/A</i>	Geotech	2GE1442	May-23
ORP	<i>238</i>	mV	±15 mV	<i>P</i>	<i>N/A</i>	<i>N/A</i>	InSitu	2G1762	Jun-23
DO (Zero pt)	<i>0.00</i>	mg/L	±0.1	<i>P</i>	<i>N/A</i>	<i>N/A</i>	Macron	#000228049	8/26/2025
DO (Saturated)	<i>09.81</i>	%	97-100%	<i>P</i>	<i>N/A</i>	<i>N/A</i>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<i>0.0</i>	NTU	<2 NTU	<i>P</i>	<i>N/A</i>	<i>N/A</i>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

23°C @ 21°C

ICV (Initial Calibration Verification)					Time: <i>0945</i>	
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer
pH 4.00b	<i>4.03</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>N/A</i>	Geotech
pH 7.00b	<i>6.99</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>N/A</i>	Geotech
pH 10.00b	<i>10.04</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>N/A</i>	Geotech
SC 1000	<i>989</i>	µS/cm	±5%	<i>P</i>	<i>N/A</i>	Ricca

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <i>1530</i>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<i>4.05</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>N/A</i>	<i>N/A</i>	MSI	L344-09	12/14/2023
pH 7.00a	<i>7.07</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>N/A</i>	<i>N/A</i>	MSI	L343-07	12/9/2023
pH 10.00a	<i>10.03</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>N/A</i>	<i>N/A</i>	MSI	M082-04	3/25/2024
SC 1000	<i>1010</i>	µS/cm	±5%	<i>P</i>	<i>N/A</i>	<i>N/A</i>	Ricca	4207N97	Jul-24
DO (Zero pt)	<i>0.00</i>	mg/L	±0.1 mg/L	<i>P</i>	<i>N/A</i>	<i>N/A</i>	Macron	#000228049	8/26/2025
Turbidity (DI)	<i>0.0</i>	NTU	<2 NTU	<i>P</i>	<i>N/A</i>	<i>N/A</i>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <i>[Signature]</i>	Date: <i>5/11/2023</i>
-------------------------------	------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: Vista Duck Creek					
Weather: 70-75°F m. sunny wind SE 10-14 mph				Environment: grass					
Multiparameter Water Meter		Make: AquaRoll	Model: 600	Serial Number: 762215					
Water Level Meter		Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305 ML					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.81	s.u.	±0.1 s.u.	Fail	Yes	4.00	MSI	L344-09	12/14/2023
pH 7.00a	6.95	s.u.	±0.1 s.u.	pass	No	NA	MSI	L343-07	12/9/2023
pH 10.00a	9.93	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	15.67	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1964.5	µS/cm	±5%				Geotech	2GE1442	May-23
ORP	237.7	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.17	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)				Time: 0739					
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.03	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24	
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24	
pH 10.00b	9.92	s.u.	±0.15 s.u.			Geotech	2GE820	May-24	
SC 1000	992.10	µS/cm	±5%			Ricca	4207N97	Jul-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):				Time: 1541					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	991.18	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):				Time:					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Comments:									
Signature: [Signature]				Date: 5/11/23					

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyle Lane</u>				Location: <u>Duck Creek</u>					
Weather: <u>69° sunny</u>				Environment: <u>Dry</u>					
Multiparameter Water Meter		Make: <u>Hanna</u>	Model: <u>V-5000</u>	Serial Number: <u>PW264503</u>					
Water Level Meter		Make: <u>Hanna</u>	Model: <u>Water Tape</u>	Serial Number: <u>3717-1</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.94</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>10.00</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2.020</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Geotech	2GE1442	May-23
ORP	<u>230</u>	mV	±15 mV	<u>P</u>	<u>NA</u>	<u>NA</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.10</u>	%	97-100%	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>1.20</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time: <u>09:41</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.98</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>7.05</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>9.89</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE820	May-24	
SC 1000	<u>1.010</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4207N97	Jul-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: <u>NA</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.04</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.88</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1.040</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>1.50</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: <u>16.04</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
7.00a	<u>7.04</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
10.00a	<u>10.88</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1.040</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>1.50</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Comments: <u>NA</u>									
Signature: <u>[Signature]</u>					Date: <u>5-11-23</u>				

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Joe Reed</u>				Location: <u>Duck Creek</u>			
Weather: <u>69-80° wind 9-10 mph</u>				Environment: <u>Gravel Road</u>			
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>U5000</u>	Serial Number: <u>Y29 KJ9HA</u>			
Water Level Meter		Make: <u>Solinst</u>	Model: <u>101</u>	Serial Number: <u>P7/LM2</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	/	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	L343-07	12/9/2023
pH 10.00a	<u>9.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	M082-04	3/25/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0-25 µS/cm	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Geotech	2GE1442	May-23
ORP	<u>240</u>	mV	±15 mV	<u>P</u>	<u>N</u>		InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.1</u>	%	97-100%	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	Pace Labs	N/A (DI)	N/A (DI)	

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>955</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>7.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>9.96</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>1000</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1615</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	/	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	L343-07	12/9/2023
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	M082-04	3/25/2024
SC 1000	<u>990</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>Joseph R Reed</u>	Date: <u>5/11/23</u>
---------------------------------	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel:	J. Joe Reed			Location:	Duck creek				
Weather:	63-81°F cloudy wind 7 mph			Environment:	wet / gravel road / grass				
Multiparameter Water Meter	Make:	HORIBA	Model:	V5000	Serial Number:	PW2GRJD3			
Water Level Meter	Make:	Solinst	Model:	101	Serial Number:	252 879			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	10.00	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC Zero (DI)	4	µS/cm	0-25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1990	µS/cm	±5%	P	N		Geotech	2GE1442	May-23
ORP	338	mV	±15 mV	P	N		InSitu	2G1762	Jun-23
DQ (Zero pt)	0.05	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	99.5	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	912			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	Mar-24	
pH 7.00b	6.98	s.u.	±0.15 s.u.	P	N	Geotech	2GC931	Mar-24	
pH 10.00b	9.98	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24	
SC 1000	998	µS/cm	±5%	P	N	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1320			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%	P	N		Ricca	4207N97	Jul-24
DO (Zero pt)	0.05	mg/L	±0.1 mg/L	P	N		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Joseph R Reed		Date:	5/12/23	
------------	---------------	--	-------	---------	--

Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyle Lane				Location: Duck Creek					
Weather: 63° to 81° rain				Environment: wet					
Multiparameter Water Meter		Make: Hanna	Model: V-500B	Serial Number: YLAKT9HA					
Water Level Meter		Make: Hanna	Model: Water tape	Serial Number: 3717T					

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	9.83	s.u.	±0.1 s.u.	F	yes	9.93	MSI	M082-04	3/25/2024
SC Zero (DI)	21.00	µS/cm	0<25 µS/cm	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1994	µS/cm	±5%	P	NA	NA	Geotech	2GE1442	May-23
ORP	216	mV	±15 mV	P	NA	NA	InSitu	2G1762	Jun-23
DO (Zero pt)	0.01	mg/L	±0.1	P	NA	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.55	%	97-100%	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)				Time: 09:20					
--	--	--	--	--------------------	--	--	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.98	s.u.	±0.15 s.u.	P	NA	Geotech	2GC931	Mar-24
pH 10.00b	8.92	s.u.	±0.15 s.u.	P	NA	Geotech	2GE820	May-24
SC 1000	1280	µS/cm	±5%	F	yes 999	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):				Time: NA					
---	--	--	--	-----------------	--	--	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC 1000	1026	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):				Time: 13:15					
---	--	--	--	--------------------	--	--	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.06	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
7.00a	7.00	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
10.00a	10.01	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC 1000	1026	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: W. Seem	Date: 5-12-23
---------------------------	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Amberton</u>		Location: <u>Duck creek</u>	
Weather: <u>69°-77°F cloudy, 12 in NW SE 8 mph</u>		Environment: <u>grass, mud</u>	
Multiparameter Water Meter	Make: <u>Hanna</u>	Model: <u>U5000</u>	Serial Number: <u>U4U1F7vF</u>
Water Level Meter	Make: <u>Heron</u>	Model: <u>Dipart</u>	Serial Number: <u>19FF211192HB</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>18</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2080</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Geotech	2GE1442	May-23
ORP	<u>232</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	<u>N/A</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.87</u>	%	97-100%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>0905</u>				
--	--	--	--	--	-------------------	--	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.03</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.91</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>10.03</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24
SC 1000	<u>106</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1300</u>				
---	--	--	--	--	-------------------	--	--	--	--


Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.06</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC 1000	<u>975</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
---	--	--	--	--	-------	--	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: 	Date: <u>5/12/2023</u>
--	------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: JD			Location: Vista Duck Creek		
Weather: 71-79°F cloudy wind SE 10 mph			Environment: grass		
Multiparameter Water Meter	Make: Aquatrill	Model: 600	Serial Number: 762215		
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305ML		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.06	s.u.	±0.1 s.u.	pass	No	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.04	s.u.	±0.1 s.u.	pass	No	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	4.80	µS/cm	0<25 µS/cm	pass	No	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1987.4	µS/cm	±5%	pass	No	NA	Geotech	2GE1442	May-23
ORP	235.0	mV	±15 mV	pass	No	NA	InSitu	2G1762	Jun-23
DO (Zero pt)	0.05	mg/L	±0.1	pass	No	NA	Macron	#000228049	8/26/2025
DO (Saturated)	99.54	%	97-100%	pass	No	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	pass	No	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 0905			
--	--	--	--	--	--	-------------------	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.04	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.94	s.u.	±0.15 s.u.	pass	NA	Geotech	2GC931	Mar-24
pH 10.00b	9.96	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE820	May-24
SC 1000	973.16	µS/cm	±5%	pass	NA	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 1302			
---	--	--	--	--	--	-------------------	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.10	s.u.	±0.1 s.u.	pass	No	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.	pass	No	NA	MSI	M082-04	3/25/2024
SC 1000	991.07	µS/cm	±5%	pass	No	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	pass	No	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0.34	NTU	<2 NTU	pass	No	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 			
---	--	--	--	--	--	---------------	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: James P. W.	Date: 5/12/23
-------------------------------	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Remberton</u>		Location: <u>Duck Creek</u>	
Weather: <u>62-71°F cloudy</u> <u>wind NE 8mph</u>		Environment: <u>grass, gravel, dirt, woods</u>	
Multiparameter Water Meter	Make: <u>Horiba</u>	Model: <u>U5000</u>	Serial Number: <u>U4U1 FVTF</u>
Water Level Meter	Make: <u>Hera</u>	Model: <u>Dipper T</u>	Serial Number: <u>3717-T</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>19</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2020</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Geotech	2GE1442	May-23
ORP	<u>240</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	<u>N/A</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>95.62</u>	%	97-100%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

240 @ 1700

ICV (Initial Calibration Verification)					Time: <u>0930</u>
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?
pH 4.00b	<u>3.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>
pH 7.00b	<u>6.91</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>
pH 10.00b	<u>9.90</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>
SC 1000	<u>1000</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>


Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1630</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u></u>	Date: <u>5/15/2023</u>
---	------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: Joe Reed		Location: Duck Creek Power	
Weather: cloudy 62-71°F wind 6 mph		Environment: grassy	
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PW2GKU D3
Water Level Meter	Make: Solinst	Model: 101	Serial Number: 252879

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC Zero (DI)	2.2	µS/cm	0-25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1990	µS/cm	±5%	P	N		Geotech	2GE1442	May-23
ORP	240	mV	±15 mV	P	N		InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	98.4	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 929		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P		Geotech	2GE870	Mar-24
pH 7.00b	7.00	s.u.	±0.15 s.u.	P		Geotech	2GC931	Mar-24
pH 10.00b	9.98	s.u.	±0.15 s.u.	P		Geotech	2GE820	May-24
SC 1000	990	µS/cm	±5%	P		Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 141615			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC 1000	1020	µS/cm	±5%	P	N		Ricca	4207N97	Jul-24
DO (Zero pt)	0.03	mg/L	±0.1 mg/L	P	N		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Joe Reed	Date: 5/15/23
----------------------------	----------------------

Multiparameter Meter Field Calibration Checklist									
Field Personnel: JO				Location: Vista Duck Creek					
Weather: 61-68°F & cloudy with ENE 10 mph				Environment: grass					
Multiparameter Water Meter		Make: Aquamill	Model: 600	Serial Number: 762215					
Water Level Meter		Make: Hera	Model: Dipper-T	Serial Number: 11FF2209305ML					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	pass	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.05	s.u.	±0.1 s.u.	pass	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.06	s.u.	±0.1 s.u.	pass	NA	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	10.31	µS/cm	0<25 µS/cm	pass	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1751.4	µS/cm	±5%	pass	NA	NA	Geotech	2GE1442	May-23
ORP	237.5	mV	±15 mV	pass	NA	NA	InSitu	2G1762	Jun-23
DO (Zero pt)	0.08	mg/L	±0.1	pass	NA	NA	Macron	#000228049	8/26/2025
DO (Saturated)	99.28	%	97-100%	pass	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	pass	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time: 0933				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.07	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24	
pH 7.00b	6.93	s.u.	±0.15 s.u.	pass	NA	Geotech	2GC931	Mar-24	
pH 10.00b	9.99	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE820	May-24	
SC 1000	1032.8	µS/cm	±5%	pass	NA	Ricca	4207N97	Jul-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: 1610				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	pass	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.05	s.u.	±0.1 s.u.	pass	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.09	s.u.	±0.1 s.u.	pass	NA	NA	MSI	M082-04	3/25/2024
SC 1000	990.18	µS/cm	±5%	pass	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L	pass	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	pass	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Comments:									
Signature: [Signature]				Date: 5/15/23					

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>KYL Lane</u>				Location: <u>Duck Creek</u>			
Weather: <u>57° to 70° cloudy</u>				Environment: <u>Dry</u>			
Multiparameter Water Meter		Make: <u>Hanna</u>	Model: <u>V-5060</u>	Serial Number: <u>YL9K39HA</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>Water tape</u>	Serial Number: <u>19FF220213LML</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.12</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>4.00</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.18</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>7.00</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>20.10</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>yes</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>19.70</u>	µS/cm	±5%	<u>P</u>	<u>yes</u>	<u>NA</u>	Geotech	2GE1442	May-23
ORP	<u>215</u>	mV	±15 mV	<u>P</u>	<u>yes</u>	<u>NA</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1	<u>P</u>	<u>yes</u>	<u>NA</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.20</u>	%	97-100%	<u>P</u>	<u>yes</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>yes</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>09:36</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>6.98</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>10.09</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE820	May-24	
SC 1000	<u>1030</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>NA</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.94</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.92</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>992</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.58</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>16:21</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
7.00a	<u>6.94</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
10.00a	<u>9.92</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>992</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.58</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Comments: NA

Signature: <u>K Lane</u>		Date: <u>5-15-2023</u>	
--------------------------	--	------------------------	--

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Amron Pemberton</u>		Location: <u>Duck creek</u>	
Weather: <u>60°-76° sunny wind NE 9mph</u>		Environment: <u>Grass, dirt, woods</u>	
Multiparameter Water Meter	Make: <u>Hanita</u>	Model: <u>US000</u>	Serial Number: <u>YL9KJAH1A</u>
Water Level Meter	Make: <u>Heron</u>	Model: <u>Dipper 7</u>	Serial Number: <u>3717-7</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	L343-07	12/9/2023
pH 10.00a	<u>10.06</u>	s.u.	±0.1 s.u.	<u>I</u>			MSI	M082-04	3/25/2024
SC Zero (DI)	<u>15</u>	µS/cm	0<25 µS/cm	<u>I</u>			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1070</u>	µS/cm	±5%	<u>I</u>			Geotech	2GE1442	May-23
ORP	<u>245</u>	mV	±15 mV	<u>I</u>			InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>I</u>			Macron	#000228049	8/26/2025
DO (Saturated)	<u>98.10</u>	%	97-100%	<u>I</u>			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>0930</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.02</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.90</u>	s.u.	±0.15 s.u.	<u>I</u>		Geotech	2GC931	Mar-24
pH 10.00b	<u>10.06</u>	s.u.	±0.15 s.u.	<u>I</u>		Geotech	2GE820	May-24
SC 1000	<u>960</u>	µS/cm	±5%	<u>I</u>		Ricca	4207N97	Jul-24

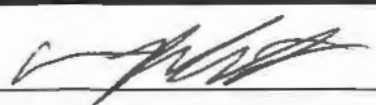
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1715</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.04</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	L343-07	12/9/2023
pH 10.00a	<u>10.08</u>	s.u.	±0.1 s.u.	<u>I</u>			MSI	M082-04	3/25/2024
SC 1000	<u>976</u>	µS/cm	±5%	<u>I</u>			Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>I</u>			Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u></u>	Date: <u>5/17/2023</u>
---	------------------------



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

October 19, 2023

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

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

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

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Diane Billings".

Diane Billings
Project Manager



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GG03019

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



Work Order GG03704

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



Work Order GG04417

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



Work Order GG04978

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



ANALYTICAL RESULTS

Sample: GG03019-07
Name: G51S
Matrix: Ground Water - Grab

Sampled: 07/18/23 12:02
Received: 07/18/23 17:16

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	15	mg/L		07/19/23 00:02	5	5.0	07/19/23 00:02	CRD	EPA 300.0 REV 2.1
Fluoride	0.278	mg/L		07/18/23 23:42	1	0.250	07/18/23 23:42	CRD	EPA 300.0 REV 2.1
Sulfate	59	mg/L		07/19/23 00:21	25	25	07/19/23 00:21	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.33	Feet		07/18/23 12:02	1		07/18/23 12:02	FIELD	Field*
Dissolved oxygen, Field	0.98	mg/L		07/18/23 12:02	1		07/18/23 12:02	FIELD	Field*
Oxidation Reduction Potential	-61.3	mV		07/18/23 12:02	1	-500	07/18/23 12:02	FIELD	Field*
pH, Field Measured	6.91	pH Units		07/18/23 12:02	1		07/18/23 12:02	FIELD	Field*
Specific Conductance, Field Measured	730.0	umhos/cm		07/18/23 12:02	1		07/18/23 12:02	FIELD	Field*
Temperature, Field Measured	14.8	°C		07/18/23 12:02	1		07/18/23 12:02	FIELD	Field*
Temperature, Field Measured	58.7	°F		07/18/23 12:02	1		07/18/23 12:02	FIELD	Field*
Turbidity, Field Measured	121	NTU		07/18/23 12:02	1	0.00	07/18/23 12:02	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	300	mg/L		07/20/23 09:16	1	10	07/20/23 09:16	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		07/20/23 09:16	1	10	07/20/23 09:16	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	420	mg/L		07/21/23 09:53	1	26	07/21/23 11:16	MKH	SM 2540C
Total Metals - PIA									
Boron	13	ug/L		07/19/23 09:56	5	10	07/21/23 11:49	JMW	EPA 6020A
Calcium	98	mg/L		07/19/23 09:56	5	0.20	07/20/23 14:15	JMW	EPA 6020A
Magnesium	42	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:15	JMW	EPA 6020A
Potassium	0.30	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:15	JMW	EPA 6020A
Sodium	7.6	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:15	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03704-01
Name: G54L
Matrix: Ground Water - Grab

Sampled: 07/20/23 12:18
Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	43	mg/L	Q4	07/21/23 17:45	5	5.0	07/21/23 17:45	TMS	EPA 300.0 REV 2.1
Fluoride	0.306	mg/L		07/21/23 17:26	1	0.250	07/21/23 17:26	TMS	EPA 300.0 REV 2.1
Sulfate	120	mg/L	Q4	07/21/23 18:04	25	25	07/21/23 18:04	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.37	Feet		07/20/23 12:18	1		07/20/23 12:18	JD	Field*
Dissolved oxygen, Field	0.60	mg/L		07/20/23 12:18	1		07/20/23 12:18	JD	Field*
Oxidation Reduction Potential	-39.9	mV		07/20/23 12:18	1	-500	07/20/23 12:18	JD	Field*
pH, Field Measured	6.46	pH Units		07/20/23 12:18	1		07/20/23 12:18	JD	Field*
Specific Conductance, Field Measured	1500	umhos/cm		07/20/23 12:18	1		07/20/23 12:18	JD	Field*
Temperature, Field Measured	22.8	°C		07/20/23 12:18	1		07/20/23 12:18	JD	Field*
Temperature, Field Measured	73.0	°F		07/20/23 12:18	1		07/20/23 12:18	JD	Field*
Turbidity, Field Measured	609	NTU		07/20/23 12:18	1	0.00	07/20/23 12:18	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	720	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		07/27/23 11:41	1	26	07/27/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Boron	32	ug/L		07/24/23 09:36	5	10	07/28/23 11:36	TJJ	EPA 6020A
Calcium	180	mg/L	Q4	07/24/23 09:36	5	0.20	08/01/23 16:27	wjm	EPA 6020A
Magnesium	90	mg/L	Q4	07/24/23 09:36	5	0.10	08/03/23 14:45	wjm	EPA 6020A
Potassium	0.39	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:27	wjm	EPA 6020A
Sodium	14	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:27	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03704-02
Name: G54S
Matrix: Ground Water - Grab

Sampled: 07/20/23 11:04
Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	6.4	mg/L		07/21/23 20:01	5	5.0	07/21/23 20:01	TMS	EPA 300.0 REV 2.1
Fluoride	0.374	mg/L		07/21/23 19:41	1	0.250	07/21/23 19:41	TMS	EPA 300.0 REV 2.1
Sulfate	36	mg/L		07/21/23 20:01	5	5.0	07/21/23 20:01	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	23.56	Feet		07/20/23 11:04	1		07/20/23 11:04	JD	Field*
Dissolved oxygen, Field	0.21	mg/L		07/20/23 11:04	1		07/20/23 11:04	JD	Field*
Oxidation Reduction Potential	-41.8	mV		07/20/23 11:04	1	-500	07/20/23 11:04	JD	Field*
pH, Field Measured	6.76	pH Units		07/20/23 11:04	1		07/20/23 11:04	JD	Field*
Specific Conductance, Field Measured	953.8	umhos/cm		07/20/23 11:04	1		07/20/23 11:04	JD	Field*
Temperature, Field Measured	65.5	°F		07/20/23 11:04	1		07/20/23 11:04	JD	Field*
Temperature, Field Measured	18.6	°C		07/20/23 11:04	1		07/20/23 11:04	JD	Field*
Turbidity, Field Measured	744	NTU		07/20/23 11:04	1	0.00	07/20/23 11:04	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	480	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	610	mg/L		07/27/23 11:41	1	26	07/27/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Boron	38	ug/L		07/24/23 09:36	5	10	07/28/23 11:45	TJJ	EPA 6020A
Calcium	110	mg/L		07/24/23 09:36	5	0.20	08/01/23 16:39	wjm	EPA 6020A
Magnesium	48	mg/L		07/24/23 09:36	5	0.10	08/03/23 14:56	wjm	EPA 6020A
Potassium	0.75	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:39	wjm	EPA 6020A
Sodium	12	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:39	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03704-03
Name: G57S
Matrix: Ground Water - Grab

Sampled: 07/20/23 13:20
Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	20	mg/L		07/21/23 20:39	5	5.0	07/21/23 20:39	TMS	EPA 300.0 REV 2.1
Fluoride	0.253	mg/L		07/21/23 20:20	1	0.250	07/21/23 20:20	TMS	EPA 300.0 REV 2.1
Sulfate	49	mg/L		07/26/23 15:05	10	10	07/26/23 22:55	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.12	Feet		07/20/23 13:20	1		07/20/23 13:20	JD	Field*
Dissolved oxygen, Field	1.5	mg/L		07/20/23 13:20	1		07/20/23 13:20	JD	Field*
Oxidation Reduction Potential	57.9	mV		07/20/23 13:20	1	-500	07/20/23 13:20	JD	Field*
pH, Field Measured	6.72	pH Units		07/20/23 13:20	1		07/20/23 13:20	JD	Field*
Specific Conductance, Field Measured	1192	umhos/cm		07/20/23 13:20	1		07/20/23 13:20	JD	Field*
Temperature, Field Measured	64.1	°F		07/20/23 13:20	1		07/20/23 13:20	JD	Field*
Temperature, Field Measured	17.8	°C		07/20/23 13:20	1		07/20/23 13:20	JD	Field*
Turbidity, Field Measured	10.4	NTU		07/20/23 13:20	1	0.00	07/20/23 13:20	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	710	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	930	mg/L		07/27/23 11:41	1	26	07/27/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Boron	13	ug/L		07/24/23 09:36	5	10	07/28/23 11:48	TJJ	EPA 6020A
Calcium	150	mg/L		07/24/23 09:36	5	0.20	08/01/23 16:42	wjm	EPA 6020A
Magnesium	93	mg/L		07/24/23 09:36	5	0.10	08/03/23 15:00	wjm	EPA 6020A
Potassium	0.30	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:42	wjm	EPA 6020A
Sodium	12	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:42	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03704-07
Name: G60S
Matrix: Ground Water - Grab

Sampled: 07/20/23 14:53
Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	5.7	mg/L		07/22/23 00:12	1	1.0	07/22/23 00:12	TMS	EPA 300.0 REV 2.1
Fluoride	0.328	mg/L		07/22/23 00:12	1	0.250	07/22/23 00:12	TMS	EPA 300.0 REV 2.1
Sulfate	77	mg/L		07/22/23 00:32	10	10	07/22/23 00:32	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.63	Feet		07/20/23 14:53	1		07/20/23 14:53	JD	Field*
Dissolved oxygen, Field	0.93	mg/L		07/20/23 14:53	1		07/20/23 14:53	JD	Field*
Oxidation Reduction Potential	-35.6	mV		07/20/23 14:53	1	-500	07/20/23 14:53	JD	Field*
pH, Field Measured	6.66	pH Units		07/20/23 14:53	1		07/20/23 14:53	JD	Field*
Specific Conductance, Field Measured	963.6	umhos/cm		07/20/23 14:53	1		07/20/23 14:53	JD	Field*
Temperature, Field Measured	22.0	°C		07/20/23 14:53	1		07/20/23 14:53	JD	Field*
Temperature, Field Measured	71.6	°F		07/20/23 14:53	1		07/20/23 14:53	JD	Field*
Turbidity, Field Measured	1840	NTU		07/20/23 14:53	1	0.00	07/20/23 14:53	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	460	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1200	mg/L	M	07/27/23 11:41	1	26	07/27/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Boron	31	ug/L		07/24/23 09:36	5	10	07/28/23 12:23	TJJ	EPA 6020A
Calcium	130	mg/L		07/24/23 09:36	5	0.20	08/01/23 17:05	wjm	EPA 6020A
Magnesium	51	mg/L		07/24/23 09:36	5	0.10	08/03/23 15:38	wjm	EPA 6020A
Potassium	0.99	mg/L		07/24/23 09:36	5	0.10	08/01/23 17:05	wjm	EPA 6020A
Sodium	12	mg/L		07/24/23 09:36	5	0.10	08/01/23 17:05	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03704-13
Name: G60L
Matrix: Ground Water - Grab

Sampled: 07/20/23 14:41
Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	12	mg/L		07/22/23 01:49	5	5.0	07/22/23 01:49	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/22/23 01:30	1	0.250	07/22/23 01:30	TMS	EPA 300.0 REV 2.1
Sulfate	190	mg/L		07/22/23 02:08	25	25	07/22/23 02:08	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.2	Feet		07/20/23 14:41	1		07/20/23 14:41	JD	Field*
Dissolved oxygen, Field	3.1	mg/L		07/20/23 14:41	1		07/20/23 14:41	JD	Field*
Oxidation Reduction Potential	86.0	mV		07/20/23 14:41	1	-500	07/20/23 14:41	JD	Field*
pH, Field Measured	5.82	pH Units		07/20/23 14:41	1		07/20/23 14:41	JD	Field*
Specific Conductance, Field Measured	887.0	umhos/cm		07/20/23 14:41	1		07/20/23 14:41	JD	Field*
Temperature, Field Measured	66.0	°F		07/20/23 14:41	1		07/20/23 14:41	JD	Field*
Temperature, Field Measured	18.9	°C		07/20/23 14:41	1		07/20/23 14:41	JD	Field*
Turbidity, Field Measured	17.9	NTU		07/20/23 14:41	1	0.00	07/20/23 14:41	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	290	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	660	mg/L		07/27/23 11:41	1	26	07/27/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Boron	31	ug/L		07/24/23 09:36	5	10	07/28/23 12:26	TJJ	EPA 6020A
Calcium	87	mg/L		07/24/23 09:36	5	0.20	08/01/23 17:09	wjm	EPA 6020A
Magnesium	36	mg/L		07/24/23 09:36	5	0.10	08/03/23 15:42	wjm	EPA 6020A
Potassium	0.31	mg/L		07/24/23 09:36	5	0.10	08/01/23 17:09	wjm	EPA 6020A
Sodium	34	mg/L		07/24/23 09:36	5	0.10	08/01/23 17:09	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03704-19
Name: X301 PUMP HOUSE
Matrix: Ground Water - Grab

Sampled: 07/20/23 15:12
Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	910	mg/L		07/22/23 03:06	100	100	07/22/23 03:06	TMS	EPA 300.0 REV 2.1
Sulfate	1300	mg/L		07/22/23 03:26	1000	1000	07/22/23 03:26	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Dissolved oxygen, Field	1.9	mg/L		07/20/23 15:12	1		07/20/23 15:12	JD	Field*
Temperature, Field Measured	69.2	°F		07/20/23 15:12	1		07/20/23 15:12	JD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	610	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		08/02/23 09:09	1	10	08/02/23 09:09	CPS	SM 2320B 1997*
<u>Total Metals - PIA</u>									
Calcium	390	mg/L		07/24/23 09:36	5	0.20	08/01/23 17:13	wjm	EPA 6020A
Magnesium	300	mg/L		07/24/23 09:36	5	0.10	08/03/23 15:46	wjm	EPA 6020A
Potassium	10	mg/L		07/24/23 09:36	5	0.10	08/01/23 17:13	wjm	EPA 6020A
Sodium	72	mg/L		07/24/23 09:36	5	0.10	08/01/23 17:13	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04417-12
Name: G64S
Matrix: Ground Water - Grab

Sampled: 07/25/23 16:23
Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	3.2	mg/L		07/26/23 15:11	1	1.0	07/26/23 15:11	TMS	EPA 300.0 REV 2.1
Fluoride	0.348	mg/L		07/26/23 15:11	1	0.250	07/26/23 15:11	TMS	EPA 300.0 REV 2.1
Sulfate	25	mg/L		07/26/23 15:30	5	5.0	07/26/23 15:30	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.18	Feet		07/25/23 16:23	1		07/25/23 16:23	FIELD	Field*
Dissolved oxygen, Field	2.1	mg/L		07/25/23 16:23	1		07/25/23 16:23	FIELD	Field*
Oxidation Reduction Potential	-38.4	mV		07/25/23 16:23	1	-500	07/25/23 16:23	FIELD	Field*
pH, Field Measured	6.82	pH Units		07/25/23 16:23	1		07/25/23 16:23	FIELD	Field*
Specific Conductance, Field Measured	702.5	umhos/cm		07/25/23 16:23	1		07/25/23 16:23	FIELD	Field*
Temperature, Field Measured	63.0	°F		07/25/23 16:23	1		07/25/23 16:23	FIELD	Field*
Temperature, Field Measured	17.2	°C		07/25/23 16:23	1		07/25/23 16:23	FIELD	Field*
Turbidity, Field Measured	9.92	NTU		07/25/23 16:23	1	0.00	07/25/23 16:23	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	420	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	800	mg/L		08/01/23 09:40	1	26	08/01/23 11:00	MKH	SM 2540C
Total Metals - PIA									
Boron	15	ug/L		07/27/23 09:21	5	10	08/09/23 16:46	TJJ	EPA 6020A
Calcium	100	mg/L		07/27/23 09:21	5	0.20	08/07/23 16:59	TJJ	EPA 6020A
Magnesium	47	mg/L		07/27/23 09:21	5	0.10	08/07/23 16:59	TJJ	EPA 6020A
Potassium	0.65	mg/L		07/27/23 09:21	5	0.10	08/07/23 16:59	TJJ	EPA 6020A
Sodium	12	mg/L		07/27/23 09:21	5	0.10	08/08/23 17:36	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04417-13
Name: G02S
Matrix: Ground Water - Grab

Sampled: 07/25/23 14:35
Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1.6	mg/L		07/26/23 15:50	1	1.0	07/26/23 15:50	TMS	EPA 300.0 REV 2.1
Fluoride	0.397	mg/L		07/26/23 15:50	1	0.250	07/26/23 15:50	TMS	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		07/26/23 15:50	1	1.0	07/26/23 15:50	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.47	Feet		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Dissolved oxygen, Field	0.070	mg/L		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Oxidation Reduction Potential	-127	mV		07/25/23 14:35	1	-500	07/25/23 14:35	FIELD	Field*
pH, Field Measured	6.57	pH Units		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Specific Conductance, Field Measured	571.4	umhos/cm		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Temperature, Field Measured	16.6	°C		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Temperature, Field Measured	61.8	°F		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Turbidity, Field Measured	1.17	NTU		07/25/23 14:35	1	0.00	07/25/23 14:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	440	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	440	mg/L		08/01/23 09:40	1	26	08/01/23 11:00	MKH	SM 2540C
Total Metals - PIA									
Boron	37	ug/L		07/27/23 09:21	5	10	08/09/23 16:50	TJJ	EPA 6020A
Calcium	100	mg/L		07/27/23 09:21	5	0.20	08/07/23 17:03	TJJ	EPA 6020A
Magnesium	38	mg/L		07/27/23 09:21	5	0.10	08/07/23 17:03	TJJ	EPA 6020A
Potassium	0.80	mg/L		07/27/23 09:21	5	0.10	08/07/23 17:03	TJJ	EPA 6020A
Sodium	14	mg/L		07/27/23 09:21	5	0.10	08/08/23 17:40	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04978-04
Name: G50S
Matrix: Ground Water - Grab

Sampled: 07/27/23 14:28
Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	13	mg/L		07/28/23 16:45	5	5.0	07/28/23 16:45	CRD	EPA 300.0 REV 2.1
Fluoride	0.322	mg/L		07/28/23 16:26	1	0.250	07/28/23 16:26	CRD	EPA 300.0 REV 2.1
Sulfate	48	mg/L		07/28/23 16:45	5	5.0	07/28/23 16:45	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.44	Feet		07/27/23 14:28	1		07/27/23 14:28	FIELD	Field*
Dissolved oxygen, Field	130	mg/L		07/27/23 14:28	1		07/27/23 14:28	FIELD	Field*
Oxidation Reduction Potential	-65.0	mV		07/27/23 14:28	1	-500	07/27/23 14:28	FIELD	Field*
pH, Field Measured	6.61	pH Units		07/27/23 14:28	1		07/27/23 14:28	FIELD	Field*
Specific Conductance, Field Measured	685.0	umhos/cm		07/27/23 14:28	1		07/27/23 14:28	FIELD	Field*
Temperature, Field Measured	20.1	°C		07/27/23 14:28	1		07/27/23 14:28	FIELD	Field*
Temperature, Field Measured	68.2	°F		07/27/23 14:28	1		07/27/23 14:28	FIELD	Field*
Turbidity, Field Measured	18.1	NTU		07/27/23 14:28	1	0.00	07/27/23 14:28	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	310	mg/L		08/09/23 11:11	1	10	08/09/23 11:11	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		08/09/23 11:11	1	10	08/09/23 11:11	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	440	mg/L		08/02/23 11:04	1	26	08/02/23 14:29	LAL2	SM 2540C
Total Metals - PIA									
Boron	19	ug/L		08/02/23 08:02	5	10	08/10/23 15:05	TJJ	EPA 6020A
Calcium	92	mg/L		08/02/23 08:02	5	0.20	08/11/23 11:02	TJJ	EPA 6020A
Magnesium	37	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:47	TJJ	EPA 6020A
Potassium	0.41	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:47	TJJ	EPA 6020A
Sodium	9.7	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:47	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04978-07
Name: G64L
Matrix: Ground Water - Grab

Sampled: 07/27/23 12:06
Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1.8	mg/L		07/28/23 18:22	1	1.0	07/28/23 18:22	CRD	EPA 300.0 REV 2.1
Fluoride	0.444	mg/L		07/28/23 18:22	1	0.250	07/28/23 18:22	CRD	EPA 300.0 REV 2.1
Sulfate	43	mg/L		07/28/23 18:41	5	5.0	07/28/23 18:41	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.8	Feet		07/27/23 12:06	1		07/27/23 12:06	FIELD	Field*
Dissolved oxygen, Field	3.7	mg/L		07/27/23 12:06	1		07/27/23 12:06	FIELD	Field*
Oxidation Reduction Potential	176	mV		07/27/23 12:06	1	-500	07/27/23 12:06	FIELD	Field*
pH, Field Measured	7.05	pH Units		07/27/23 12:06	1		07/27/23 12:06	FIELD	Field*
Specific Conductance, Field Measured	920.1	umhos/cm		07/27/23 12:06	1		07/27/23 12:06	FIELD	Field*
Temperature, Field Measured	19.8	°C		07/27/23 12:06	1		07/27/23 12:06	FIELD	Field*
Temperature, Field Measured	67.6	°F		07/27/23 12:06	1		07/27/23 12:06	FIELD	Field*
Turbidity, Field Measured	315	NTU		07/27/23 12:06	1	0.00	07/27/23 12:06	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	490	mg/L		08/09/23 11:11	1	10	08/09/23 11:11	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		08/09/23 11:11	1	10	08/09/23 11:11	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	600	mg/L		08/02/23 11:04	1	26	08/02/23 14:29	LAL2	SM 2540C
Total Metals - PIA									
Boron	41	ug/L		08/02/23 08:02	5	10	08/10/23 13:58	TJJ	EPA 6020A
Calcium	110	mg/L		08/02/23 08:02	5	0.20	08/11/23 11:06	TJJ	EPA 6020A
Magnesium	65	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:58	TJJ	EPA 6020A
Potassium	0.87	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:58	TJJ	EPA 6020A
Sodium	8.5	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:58	TJJ	EPA 6020A



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B338951 - SW 3015 - EPA 6020A</u>									
Blank (B338951-BLK1)				Prepared: 07/19/23 Analyzed: 07/21/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B338951-BS1)				Prepared: 07/19/23 Analyzed: 07/21/23					
Boron	547	ug/L		555.6		98	80-120		
Calcium	6.12	mg/L		5.556		110	80-120		
Magnesium	6.29	mg/L		5.556		113	80-120		
Potassium	6.08	mg/L		5.556		109	80-120		
Sodium	6.39	mg/L		5.556		115	80-120		
Matrix Spike (B338951-MS1)				Sample: GG03019-01		Prepared: 07/19/23 Analyzed: 07/21/23			
Boron	555	ug/L		555.6	18.3	97	75-125		
Calcium	138	mg/L	Q4	5.556	140	NR	75-125		
Magnesium	64.0	mg/L	Q4	5.556	61.2	50	75-125		
Potassium	6.41	mg/L		5.556	0.626	104	75-125		
Sodium	15.3	mg/L		5.556	9.64	102	75-125		
Matrix Spike Dup (B338951-MSD1)				Sample: GG03019-01		Prepared: 07/19/23 Analyzed: 07/21/23			
Boron	559	ug/L		555.6	18.3	97	75-125	0.7	20
Calcium	142	mg/L	Q4	5.556	140	46	75-125	3	20
Magnesium	66.5	mg/L	Q4	5.556	61.2	96	75-125	4	20
Potassium	6.61	mg/L		5.556	0.626	108	75-125	3	20
Sodium	15.9	mg/L		5.556	9.64	114	75-125	4	20
<u>Batch B339129 - No Prep - SM 2320B 1997</u>									
Duplicate (B339129-DUP3)				Sample: GG03019-01		Prepared & Analyzed: 07/20/23			
Alkalinity - carbonate as CaCO ₃	< 10	mg/L				ND			10
Alkalinity - bicarbonate as CaCO ₃	312	mg/L				300		4	10
<u>Batch B339216 - No Prep - SM 2540C</u>									
Blank (B339216-BLK1)				Prepared & Analyzed: 07/21/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B339216-BS1)				Prepared & Analyzed: 07/21/23					
Solids - total dissolved solids (TDS)	977	mg/L		1000		98	84.9-109		
Duplicate (B339216-DUP1)				Sample: GG03019-01		Prepared & Analyzed: 07/21/23			
Solids - total dissolved solids (TDS)	760	mg/L				775		2	5
Duplicate (B339216-DUP2)				Sample: GG03019-11		Prepared & Analyzed: 07/21/23			
Solids - total dissolved solids (TDS)	610	mg/L				625		2	5
<u>Batch B339333 - SW 3015 - EPA 6020A</u>									
Blank (B339333-BLK1)				Prepared: 07/24/23 Analyzed: 07/28/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B339333-BLK1)				Prepared: 07/24/23 Analyzed: 08/01/23					
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B339333-BS1)				Prepared: 07/24/23 Analyzed: 07/28/23					
Boron	624	ug/L		555.6		112	80-120		
Calcium	4.80	mg/L		5.556		86	80-120		
Magnesium	5.31	mg/L		5.556		96	80-120		
Potassium	5.43	mg/L		5.556		98	80-120		
Sodium	5.44	mg/L		5.556		98	80-120		
Matrix Spike (B339333-MS1)				Sample: GG03704-01		Prepared: 07/24/23 Analyzed: 07/28/23			
Boron	599	ug/L		555.6	31.7	102	75-125		
Calcium	177	mg/L	Q4	5.556	175	28	75-125		
Magnesium	92.7	mg/L	Q4	5.556	89.8	52	75-125		
Potassium	5.89	mg/L		5.556	0.387	99	75-125		
Sodium	19.3	mg/L		5.556	14.2	93	75-125		
Matrix Spike Dup (B339333-MSD1)				Sample: GG03704-01		Prepared: 07/24/23 Analyzed: 07/28/23			
Boron	612	ug/L		555.6	31.7	105	75-125	2	20
Calcium	177	mg/L	Q4	5.556	175	40	75-125	0.4	20
Magnesium	94.2	mg/L		5.556	89.8	80	75-125	2	20
Potassium	5.83	mg/L		5.556	0.387	98	75-125	1	20
Sodium	19.0	mg/L		5.556	14.2	88	75-125	2	20
<u>Batch B339340 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B339340-MS3)				Sample: GG03704-01		Prepared & Analyzed: 07/21/23			
Chloride	1.0E9	mg/L	Q4	1.500	43	NR	80-120		
Fluoride	1.86	mg/L		1.500	0.306	103	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	124	NR	80-120		
Matrix Spike Dup (B339340-MSD3)				Sample: GG03704-01		Prepared & Analyzed: 07/21/23			
Sulfate	1.00E9	mg/L	Q4	1.500	124	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	43	NR	80-120	0	20
Fluoride	1.85	mg/L		1.500	0.306	103	80-120	0.3	20
<u>Batch B339705 - SW 3015 - EPA 6020A</u>									
Blank (B339705-BLK1)				Prepared: 07/27/23 Analyzed: 08/09/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B339705-BS1)				Prepared: 07/27/23 Analyzed: 08/09/23					
Boron	526	ug/L		555.6		95	80-120		
Calcium	5.59	mg/L		5.556		101	80-120		
Magnesium	5.81	mg/L		5.556		105	80-120		
Potassium	6.05	mg/L		5.556		109	80-120		
Sodium	5.69	mg/L		5.556		102	80-120		
Matrix Spike (B339705-MS1)				Sample: GG04417-01		Prepared: 07/27/23 Analyzed: 08/09/23			
Boron	826	ug/L	Q1	555.6	472	64	75-125		
Calcium	290	mg/L	Q4	5.556	289	18	75-125		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B339705-MS1) Sample: GG04417-01 Prepared: 07/27/23 Analyzed: 08/08/23									
Magnesium	189	mg/L	Q4	5.556	179	173	75-125		
Potassium	30.8	mg/L		5.556	24.5	113	75-125		
Sodium	10.7	mg/L		5.556	5.57	93	75-125		
Matrix Spike Dup (B339705-MSD1) Sample: GG04417-01 Prepared: 07/27/23 Analyzed: 08/09/23									
Boron	770	ug/L	Q2	555.6	472	54	75-125	7	20
Calcium	285	mg/L	Q4	5.556	289	NR	75-125	2	20
Magnesium	191	mg/L	Q4	5.556	179	205	75-125	0.9	20
Potassium	31.3	mg/L		5.556	24.5	123	75-125	2	20
Sodium	10.6	mg/L		5.556	5.57	90	75-125	1	20
Batch B339730 - IC No Prep - EPA 300.0 REV 2.1									
Matrix Spike (B339730-MS1) Sample: GG04417-01 Prepared & Analyzed: 07/26/23									
Sulfate	1.00E9	mg/L	Q4	1.500	347	NR	80-120		
Chloride	4.5	mg/L		1.500	2.8	115	80-120		
Matrix Spike Dup (B339730-MSD1) Sample: GG04417-01 Prepared & Analyzed: 07/26/23									
Sulfate	1.00E9	mg/L	Q4	1.500	347	NR	80-120	0	20
Chloride	4.4	mg/L		1.500	2.8	113	80-120	0.9	20
Batch B339734 - No Prep - SM 2540C									
Blank (B339734-BLK1) Prepared & Analyzed: 07/27/23									
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B339734-BS1) Prepared & Analyzed: 07/27/23									
Solids - total dissolved solids (TDS)	1020	mg/L		1000		102	84.9-109		
Duplicate (B339734-DUP1) Sample: GG03704-01 Prepared & Analyzed: 07/27/23									
Solids - total dissolved solids (TDS)	1060	mg/L			1100			5	5
Duplicate (B339734-DUP2) Sample: GG03704-07 Prepared & Analyzed: 07/27/23									
Solids - total dissolved solids (TDS)	735	mg/L	M		1180			47	5
Batch B339934 - No Prep - SM 2540C									
Blank (B339934-BLK1) Prepared & Analyzed: 08/01/23									
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B339934-BS1) Prepared & Analyzed: 08/01/23									
Solids - total dissolved solids (TDS)	993	mg/L		1000		99	84.9-109		
Duplicate (B339934-DUP1) Sample: GG04417-01 Prepared & Analyzed: 08/01/23									
Solids - total dissolved solids (TDS)	980	mg/L			960			2	5
Duplicate (B339934-DUP2) Sample: GG04417-11 Prepared & Analyzed: 08/01/23									
Solids - total dissolved solids (TDS)	785	mg/L	M		810			3	5
Batch B339939 - IC No Prep - EPA 300.0 REV 2.1									
Matrix Spike (B339939-MS1) Sample: GG04978-01 Prepared & Analyzed: 07/28/23									
Fluoride	1.74	mg/L		1.500	0.257	99	80-120		
Chloride	4.5	mg/L		1.500	3.3	85	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	463	NR	80-120		
Matrix Spike (B339939-MS2) Sample: GG04978-11 Prepared: 07/29/23 Analyzed: 07/28/23									
Fluoride	1.66	mg/L		1.500	0.192	98	80-120		
Matrix Spike Dup (B339939-MSD1) Sample: GG04978-01 Prepared & Analyzed: 07/28/23									
Fluoride	1.79	mg/L		1.500	0.257	102	80-120	2	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B339939-MSD1)									
Sample: GG04978-01				Prepared & Analyzed: 07/28/23					
Chloride	4.6	mg/L		1.500	3.3	92	80-120	2	20
Sulfate	1.00E9	mg/L	Q4	1.500	463	NR	80-120	0	20
Matrix Spike Dup (B339939-MSD2)									
Sample: GG04978-11				Prepared: 07/29/23 Analyzed: 07/28/23					
Fluoride	1.68	mg/L		1.500	0.192	99	80-120	0.8	20
<u>Batch B340157 - SW 3015 - EPA 6020A</u>									
Blank (B340157-BLK1)									
				Prepared: 08/02/23 Analyzed: 08/10/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B340157-BS1)									
				Prepared: 08/02/23 Analyzed: 08/10/23					
Boron	619	ug/L		555.6		111	80-120		
Calcium	5.74	mg/L		5.556		103	80-120		
Magnesium	5.58	mg/L		5.556		100	80-120		
Potassium	5.58	mg/L		5.556		101	80-120		
Sodium	5.65	mg/L		5.556		102	80-120		
Matrix Spike (B340157-MS1)									
Sample: GG04978-01				Prepared: 08/02/23 Analyzed: 08/10/23					
Boron	605	ug/L		555.6	91.6	92	75-125		
Calcium	305	mg/L	Q4	5.556	303	26	75-125		
Magnesium	118	mg/L	Q4	5.556	115	52	75-125		
Potassium	7.42	mg/L		5.556	1.95	98	75-125		
Sodium	18.9	mg/L		5.556	13.7	94	75-125		
Matrix Spike Dup (B340157-MSD1)									
Sample: GG04978-01				Prepared: 08/02/23 Analyzed: 08/10/23					
Boron	613	ug/L		555.6	91.6	94	75-125	1	20
Calcium	305	mg/L	Q4	5.556	303	32	75-125	0.1	20
Magnesium	118	mg/L	Q4	5.556	115	50	75-125	0.1	20
Potassium	7.37	mg/L		5.556	1.95	97	75-125	0.7	20
Sodium	18.8	mg/L		5.556	13.7	93	75-125	0.3	20
<u>Batch B340192 - No Prep - SM 2540C</u>									
Blank (B340192-BLK1)									
				Prepared & Analyzed: 08/02/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B340192-BS1)									
				Prepared & Analyzed: 08/02/23					
Solids - total dissolved solids (TDS)	987	mg/L		1000		99	84.9-109		
Duplicate (B340192-DUP1)									
Sample: GG04978-01				Prepared & Analyzed: 08/02/23					
Solids - total dissolved solids (TDS)	1480	mg/L			1420			4	5
Duplicate (B340192-DUP2)									
Sample: GG05277-01				Prepared & Analyzed: 08/02/23					
Solids - total dissolved solids (TDS)	5100	mg/L			5180			2	5
<u>Batch B340193 - No Prep - SM 2320B 1997</u>									
Duplicate (B340193-DUP1)									
Sample: GG03704-01				Prepared & Analyzed: 08/02/23					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	675	mg/L			725			7	10
Duplicate (B340193-DUP2)									
Sample: GG03704-06				Prepared & Analyzed: 08/02/23					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B340193-DUP2)	Sample: GG03704-06			Prepared & Analyzed: 08/02/23					
Alkalinity - bicarbonate as CaCO ₃	538	mg/L			500			7	10
<u>Batch B340448 - No Prep - SM 2320B 1997</u>									
Duplicate (B340448-DUP1)	Sample: GG04129-01			Prepared & Analyzed: 08/04/23					
Alkalinity - bicarbonate as CaCO ₃	525	mg/L			525			0	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B340448-DUP2)	Sample: GG04129-11			Prepared & Analyzed: 08/04/23					
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	400	mg/L			388			3	10
Duplicate (B340448-DUP3)	Sample: GG04129-14			Prepared & Analyzed: 08/04/23					
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	500	mg/L			488			3	10
Duplicate (B340448-DUP4)	Sample: GG04417-01			Prepared & Analyzed: 08/04/23					
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	400	mg/L			362			10	10
<u>Batch B340811 - No Prep - SM 2320B 1997</u>									
Duplicate (B340811-DUP1)	Sample: GG04978-01			Prepared & Analyzed: 08/09/23					
Alkalinity - bicarbonate as CaCO ₃	825	mg/L			800			3	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B340811-DUP2)	Sample: GG05277-01			Prepared & Analyzed: 08/09/23					
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	488	mg/L			500			3	10



NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

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

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

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

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

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

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

USEPA DMR-QA Program

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

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

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

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

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

Qualifiers

- M Analyte failed to meet the required acceptance criteria for duplicate analysis.
- Q1 Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q2 Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Certified by: Diane Billings, Project Manager



SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Numl	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
BA01C	DC-BA01!C	205	BAB	7/17/23	1428	14.90		KL
BA01L	DC-BA01!L	205	BAB		1425	15.29		KL
G02L	DC-G02!L	204	LF		0941	12.22		SD
G02D	DC-G02&D	204	LF		0944	22.04	TD = 68.48'	SD
G03L	DC-G03!L	204	LF		0934	8.68	TD = 26.80'	SD
G03S	DC-G03#S	204	LF		0929	8.33		SD
G04L	DC-G04!L	204	LF		1327	15.42	dry	NW
G04S	DC-G04#S	204	LF		1329	18.27		NW
G06L	DC-G06!L	204	LF		1232	21.80		SD
G06S	DC-G06#S	204	LF		1230	22.02		SD
G07L	DC-G07!L	204	LF		1222	21.12		SD
G08L	DC-G08!L	204	LF		1216	20.68		SD
G09L	DC-G09!L	204	LF		1207	20.75		SD
G09S	DC-G09#S	204	LF		1216	20.63		SD
G12L	DC-G12!L	204	LF		1139	21.67		SD
G12S	DC-G12#S	204	LF		1141	22.72		SD
G14L	DC-G14!L	204	LF		1106	24.02	TD = 26.86	SD
G15L	DC-G15!L	204	LF		1050	30.85		SD
G15S	DC-G15#S	204	LF		1047	31.19		SD
G16L	DC-G16!L	204	LF		1042	29.41		SD
G50L	DC-G50!L	203	GMF		1036	12.52		KL
G51L	DC-G51!L	203	GMF		1522	15.75		SD
G52L	DC-G52!L	203	GMF		1515	26.38		SD

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Numl	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G52S	DC-G52#S	203	GMF	7/17/23	15:16	31.00		JD
G53L	DC-G53!L	203	GMF		11:56	11.98		KL
G53S	DC-G53#S	203	GMF		11:59	13.70		KL
G55L	DC-G55!L	203	GMF		15:32	19.38		JD
G55S	DC-G55#S	203	GMF		15:31	19.18		JD
G56L	DC-G56!L	203	GMF		9:36	18.15	TD = 25.43	KL
G56S	DC-G56#S	203	GMF		9:33	18.55		KL
G57L	DC-G57!L	203	GMF		9:47	22.35	TD = 29.28	KL
G58L	DC-G58!L	203	GMF		9:51	26.56	TD = 33.81	KL
G58S	DC-G58#S	203	GMF		9:54	26.59		KL
G59L	DC-G59!L	203	GMF		9:57	25.54	TD = 35.32	KL
G59S	DC-G59#S	203	GMF		9:59	33.85		KL
G61S	DC-G61#S	203	GMF		10:14	19.28		KL
G62L	DC-G62!L	203	GMF		10:19	20.79	TD = 33.52	KL
G63L	DC-G63!L	203	GMF		10:22	23.60	TD = 31.02	KL
G63S	DC-G63#S	203	GMF		10:26	24.34		KL
G65L	DC-G65!L	203	GMF		12:35	18.21	TD = 25.16	NW
G65S	DC-G65#S	203	GMF		10:31	18.52		NW
G66L	DC-G66!L	203	GMF		10:45	12.35		NW
G66S	DC-G66#S	203	GMF		10:46	13.01		NW
G67L	DC-G67!L	203	GMF		10:55	11.45		NW
G67S	DC-G67#S	203	GMF		10:58	12.33		NW
G68L	DC-G68!L	203	GMF		11:41	11.97		NW

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G68S	DC-G68#S	203	GMF	7/17/23	1148	12.85		NW
G69L	DC-G69!L	203	GMF		0941	13.80	TD = 27.86	NW
G69S	DC-G69#S	203	GMF		0933	16.96		NW
G70L	DC-G70!L	203	GMF		0949	16.54		NW
G71L	DC-G71!L	203	GMF		1000	23.71	TD = 32.96	NW
G71S	DC-G71#S	203	GMF		0955	24.48		NW
G72L	DC-G72!L	203	GMF		1005	22.40	TD = 28.02	NW
G73L	DC-G73!L	203	GMF		1025	25.53		NW
L103	DC-L103	204	LF		1515	1.10		AP
OM05S	DC-OM05#S	201-202	AP1/2		1403	18.00	TD = 25.70	AP
OM08	DC-OM08	201-202	AP1/2		1348	14.85	TD = 26.94	AP
OM09	DC-OM09	201-202	AP1/2		1259	4.18		AP
OM10	DC-OM10	201-202	AP1/2		1100	-	not safe to access	AP
OM15	DC-OM15	201-202	AP1/2		1437	21.60	TD = 51.17	AP
OM22S	DC-OM22#S	201-202	AP1/2		1057	41.79 19.31		BG
OM23S	DC-OM23#S	201-202	AP1/2		1235	57.95 41.79	TD = 46.10	AP
OM25D	DC-OM25&D	201-202	AP1/2		1317	48.62 57.95	TD = 77.39	AP
OR03S	DC-OR03#S	201-202	AP1/2		1045	21.65 48.62		BG
OR05D	DC-OR05&D	201-202	AP1/2		1400	16. 21.65	TD = 49.74	AP
OR14S	DC-OR14#S	201-202	AP1/2		1337	6.82	TD = 24.33	AP
OR18	DC-OR18	201-202	AP1/2		0943	17.32	TD = 53.10	AP
P01L	DC-P01!L	204	LF		0951	10.38	TD = 23.35'	JD
P01S	DC-P01#S	204	LF		0954	10.13	TD = 29.71'	JD

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P01I	DC-P01\$I	204	LF	7/17/23	1005	10.05	TD = 46.95	JD
P02S	DC-P02#S	204	LF		1523	14.89	TD = 91.94	JD
P04S	DC-P04#S	204	LF		1329	18.27		JD
P05L	DC-P05!L	204	LF		1335	3.11	TD = 14.92'	JD
P05S	DC-P05#S	204	LF		1337	3.28		JD
P05D	DC-P05&D	204	LF		1339	6.30	TD = 46.10'	JD
P36L	DC-P36!L	204	LF		1306 1024	6.96 11.17	TD = 15.09' to 7/17/23	JD
P36S	DC-P36#S	204	LF		1302	11.33	TD = 31.43'	JD
P36D	DC-P36&D	204	LF		1310	11.57	TD = 51.38	JD
P37L	DC-P37!L	204	LF		1203	13.64		JD
P37D	DC-P37&D	204	LF		1306	15.59		KL
P38L	DC-P38!L	204	LF		1059	17.95	TD = 19.75	JD
P38S	DC-P38#S	204	LF		1057	17.30	TD = 31.42'	JD
P39L	DC-P39!L	204	LF		1024	6.96	TD = 15.09'	JD
P39S	DC-P39#S	204	LF		1031	7.14	TD = 26.25'	JD
P39D	DC-P39&D	204	LF		1028	13.75	TD = 43.58'	JD
P40L	DC-P40!L	204	LF		1359	10.28	TD = 20.44'	JD
P40S	DC-P40#S	204	LF		1401	9.54	TD = 35.42'	JD
P41L	DC-P41!L	204	LF		1117	6.90	TD = 12.00'	JD
P41S	DC-P41#S	204	LF		1119	9.51		KL
P41D	DC-P41&D	204	LF		1123	35.40		KL
P42L	DC-P42!L	204	LF		1216	5.88	TD = 24.30 well is knocked over	NW
P42S	DC-P42#S	204	LF		1218	5.93	TD = 31.47	NW

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P42I1	DC-P42\$I1	204	LF	7/17/23	1536	6.02	TD = 42.22	KL
P42I2	DC-P42\$I2	204	LF		1534	32.42	TD = 57.30	KL
P42D	DC-P42&D	204	LF		1221	37.62	TD = 77.07	NW
P52	DC-P52	203	GMF		1514	14.82	TD = 28.26	KL
P57L	DC-P57!L	203	GMF		1517	22.32	TD = 29.27	KL
P57S	DC-P57#S	203	GMF		1520	22.08		KL
P60	DC-P60	203	GMF		1010	24.54	TD = 37.30	KL
P61	DC-P61	203	GMF		1053	10.00	TD = 21.53	KL
P62	DC-P62	203	GMF		1050	10.55	TD = 19.11	KL
P63	DC-P63	203	GMF		1048	14.17	TD = 20.46	KL
P64	DC-P64	203	GMF		1103	14.71	TD = 18.92	KL
R10L	DC-R10!L	204	LF		1154	21.93	27.45' = TD	JD
R11L	DC-R11!L	204	LF		1145	21.37	26.89' = TD ^{5-6 ft} bottom	JD
R13L	DC-R13!L	204	LF		1131	21.10	29.88' = TD	JD
R61L	DC-R61!L	203	GMF		1528	19.00	31.45' = TD	KL
R72S	DC-R72#S	203	GMF		1010	22.26	TD = 37.77	NW
T43L	DC-T43!L	204	LF		1238	6.69		JD
T44L	DC-T44!L	204	LF		1243	11.00		JD
T45L	DC-T45!L	204	LF		1246	8.96		JD
T46L	DC-T46!L	204	LF		1258	7.00		JD
X301	DC-X301-leachate	203	GMF		NA	NA	NA	
XTPW02	DC-XTPW02-pore	203	GMF		1530	6.99	Dry	AP

U:6/19/23 GKJ

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
------	-----------	-----------	-----------	------	------	---	----------	----------

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs on SAR-4 form may be collected at anytime during the sampling event.

Plant: DC

Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Data Logger Serial No.	Does Data Match? Serial No.	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L)	Comments	Initials
BA01	DC-BA01	205	BAB	7/24/23	1105	15.79	21615533	yes	174.21	Y	M		KL
BA02	DC-BA02	205	BAB	7/25/23	1111	12.02	21615636	yes	506.	Y	H	batteries replaced	JR
BA02L	DC-BA02IL	205	BAB	7/24	1056	Dry	21615682	yes	173.38	Y	H		KL
BA03	DC-BA03	205	BAB	7/31/23	1340	10.48	21615637	yes	578.34	Y	H		JR
BA03L	DC-BA03IL	205	BAB	7/24	1009	Dry	21615687	yes	173.24	Y	M		KL
BA04	DC-BA04	205	BAB	7/24/23	1249	6.99	21615631	yes	573.67	Y	H		JR
BA05	DC-BA05#	205	BAB	7/31/23	1332	21.36	21615540	yes	572.81	Y	H		JR
BA06	DC-BA06	205	BAB	7/24/23	1534	25.04	21615525	yes	173.93	Y	H		KL
G02S	DC-G02#S	204	LF	7/25/23	1316	10.47	21615554	yes	611.07	Y	M		JR
G50S	DC-G50#S	203	GMF	7/27	1314	15.44	21615535	yes	185.41	Y	H		KL
G51S	DC-G51#S	203	GMF	7/31	1332	15.33	21615691	yes	183.18	Y	H		KL
G54L	DC-G54IL	203	GMF	7/31	1341	22.37	21615690	yes	183.09	Y	H		KL
G54S	DC-G54#S	203	GMF	7/31	1337	23.56	21615684	yes	182.72	Y	H		KL
G57S	DC-G57#S	203	GMF	7/31	1347	22.26	21615683	yes	182.88	Y	H		KL
G60L	DC-G60IL	203	GMF	7/31	1354	12.20	21615678	yes	183.39	Y	H		KL
G60S	DC-G60#S	203	GMF	7/31	1351	24.63	21615677	yes	179.73	Y	H		KL
G64L	DC-G64IL	203	GMF	7/31	1358	22.83	21615688	yes	190.29	Y	H		KL
G64S	DC-G64#S	203	GMF	7/25/23	1504	24.18	21615632	yes	600.32	Y	H		JR

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs on SAR-4 form may be collected at anytime during the sampling event.
Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Data Logger Serial No.	Does Data Match? Serial No. Logger	W/L Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L)	Comments	Initials
OM01	DC-OM01	201-AP1/ 202 2	AP1/	7/20/23	10:19	12.06	21615685	yes	583.4573	yes	H	TD-22.83	App
OM04S	DC-OM04#S	201-AP1/ 202 2	AP1/	7/25/23	10:50	20.00	21615542	yes	587.37	yes	H	TD-35.88	JD
OM07	DC-DM07	201-AP1/ 202 2	AP1/	7/26/23	10:45	12.41	21615541	yes	584.12	yes	H	TD-29.97	JD
OM12	DC-OM12	201-AP1/ 202 2	AP1/	7/27/23	15:11	17.34	21615527	yes	176.17	yes	H		KU
OM16	DC-OM16	201-AP1/ 202 2	AP1/	7/24/23	11:30	24.50	21615539	yes	580.61	yes	H	TD-43.60	SD
OM17	DC-OM17	201-AP1/ 202 2	AP1/	7/24/23	13:30	13.66	21615693	yes	---	yes	H	replaced battery	SD
OM21	DC-OM21	201-AP1/ 202 2	AP1/	7/19/23	15:27	10.80	21615593	yes	11.3153	yes	H	TD-60.57	App
OM22D	DC-OM22&D	201-AP1/ 202 2	AP1/	7/19/23	11:05	18.85	21615592	yes	580.0543	yes	H	TD-65.074	App
OM23D	DC-OM23&D	201-AP1/ 202 2	AP1/	7/27/23	12:22	38.54	21615591	yes	39.76	yes	M		JR
OM24D	DC-OM24&D	201-AP1/ 202 2	AP1/	7/27/23	12:30	41.90	21615522	yes	broken	NO	---	broken/called Informal Station	JR
OM25S	DC-OM25#S	201-AP1/ 202 2	AP1/	7/26/23	12:51	57.96	21615681	yes	570.79	yes	H		JD
OR02	DC-OR02	201-AP1/ 202 2	AP1/	7/20/23	12:42	6.19	21615679	yes	595.0210	yes	H	TD-22.28	App
OR03D	DC-OR03&D	201-AP1/ 202 2	AP1/	7/10/23	14:10	44.44	21615577	yes	583.1447	yes	H	TD	App
OR04D	DC-OR04&D	201-AP1/ 202 2	AP1/	7/25/23	10:47	21.21	21615570	yes	586.37	yes	H	TD-68.01	JD
OR06A	DC-OR06/A	201-AP1/ 202 2	AP1/	7/26/23	12:02	14.07	21615692	yes	581.23	yes	H	TD-25.65	JD
OR11	DC-OR11	201-AP1/ 202 2	AP1/	7/25/23	10:00	31.84	21615686	yes	564.59	yes	H	TD-46.03	JD
OR13S	DC-OR13#S	201-AP1/ 202 2	AP1/	7/31/23	13:55		21615676	yes	588.75	yes	M		JR
OR13D	DC-OR13&D	201-AP1/ 202 2	AP1/	7/26/23	7:42		21564135	yes	589.15	yes	H		JR

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs on SAR-4 form may be collected at anytime during the sampling event.

Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L)		
OR14D	DC-OR148D	201-202	AP1/2	7/24/23	1431	10.52	21615611	yes	588.34	x	H		
OR19	DC-OR19	201-202	AP1/2	7/31/23	1210	25.99	21615634	yes	571.76	y	H		JR
OR20	DC-OR20	201-202	AP1/2	07/24/23	0936	21.95	21615610	yes	-565.1	y	H	TD=57.55	JO

U: 6/21/23 GKJ

Duck Creek

WELL/SAMPLE POINT **G02S**

Purge Method:

Bladder Pump

Date: 7/25/23

Start Time: 1325

Finish/Sample Time: 1435

Well Depth (Bottom) From MP: 1047 ft

Min. Purge Volume: 1 Gal ☒ L

Depth to Water From MP: 1047 ft

Total Purge Volume: 1.3 Gal ☒ L

Water Column Length: ft

Max Drawdown: ft

Well Water Volume: Gal / L

Total Drawdown: 1.36 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1337	11.72	100	658	559.1	16.60	-127.8	0.07	32.6
2	1338	11.72	100	658	563.44	16.60	-129.1	0.06	15.20
3	1339	11.72	100	657	571.41	16.56	-126.9	0.07	7.17
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

AT 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)
	<u>Red 2.5L</u>

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	<u>TOC</u>

Final DTW: 11.83 ft

Comments Ferrous Iron - Over range

Sampler's Signature:

Joseph R Reed

Duck Creek

WELL/SAMPLE POINT G50S

Purge Method: Flow from

Date: 7-20-23 Start Time: 10:05 Finish/Sample Time: 14:28

Well Depth (Bottom) From MP: 37.30 ft Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 15.44 ft Total Purge Volume: 1.3 Gal / L

Water Column Length: 21.86 ft Max Drawdown: NA

Well Water Volume: 3.49 Gal / L Total Drawdown: 6.44

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	13:30	18.45	100	6.63	679	20.03	-74	1.24	25.0
2	13:38	18.58	100	6.60	689	20.00	-70	1.35	21.4
3	13:39	18.72	100	6.61	685	20.13	-65	1.32	18.1
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
1	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)
1	Rad 25

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	TOC

Final DTW: 21.88 ft

Comments

NA / Ferrus iron →
00425

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G51S

Purge Method: Bladder

Date: 7/18/23 Start Time: 1035 Finish/Sample Time: 1202

Well Depth (Bottom) From MP: 32.17 ft Min. Purge Volume: 1.5 Gal ①
Depth to Water From MP: 15.33 ft Total Purge Volume: 2.0 Gal ①
Water Column Length: 16.84 ft Max Drawdown: ft
Well Water Volume: 10.20 Gal ① Total Drawdown: 7.00 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1056	18.19	100	6.92	733.84	14.89	-64.1	0.95	140.13
2	1057	18.29	100	6.91	733.22	14.86	-62.9	0.91	120.0
3	1058	18.41	100	6.91	730.01	14.84	-61.3	0.98	120.92
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: AT 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Good seal/drainage	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C.V, 40mL, HCL)
	VOAs (C.V, 40mL)
	Organics (A.G,U 1000mL)
	Organics (A.G,U 500mL)
<u>3</u>	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
<u>1</u>	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
<u>1</u>	General (P, 250 mL) <u>IL</u>
	<u>P, 2.5L, HNO3</u>

Filtered	
Qty	Bottles
<u>1</u>	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
<u>1</u>	General (P, 250 mL) <u>IL</u>
<u>3</u>	TOC (A,V, 40mL, H2SO4)

Final DTW: 22.33 ft

Comments

21615691 - Transducer #
Ferrous Iron - 0.864 ppm

Sampler's Signature: Breder Bluman

Duck Creek

WELL/SAMPLE POINT G54L

Purge Method: Portable Pump

Date: 7/20/23 Start Time: 1110 Finish/Sample Time: 1218

Well Depth (Bottom) From MP: 40.30 ft Min. Purge Volume: 1.0 Gal Ⓛ

Depth to Water From MP: 22.37 ft Total Purge Volume: 1.5 Gal Ⓛ

Water Column Length: 17.93 ft Max Drawdown: — ft

Well Water Volume: 10.86 Gal Ⓛ Total Drawdown: 3.45 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1126	25.90	100	6.46	1496.0	22.86	-39.7	0.69	539.76
2	1127	26.15	100	6.46	1506.4	22.81	-38.6	0.64	571.73
3	1128	26.35	100	6.46	1499.9	22.79	-39.9	0.60	608.71
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatrill 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)
1	P 25L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	TOC

Final DTW: 25.82 ft

Comments Soluble Iron = 4.238 ppm

Sampler's Signature: [Signature]

WELL/SAMPLE POINT **G54L**

Purge Method: portable pump

Date: 7-25-23 Start Time: 14:45 Finish/Sample Time: 15:23

Well Depth (Bottom) From MP: 40.30 ft
Depth to Water From MP: 22.37 ft
Water Column Length: 17.93 ft
Well Water Volume: 2.86 Gal / L
Min. Purge Volume: 1.0 Gal / L
Total Purge Volume: 1.3 Gal / L
Max Drawdown: NA ft
Total Drawdown: 5.00 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	15:04	25.88	100	5.52	1,520	24.31	4	0.84	8.6
2	15:05	25.90	100	5.50	1,520	24.53	4	0.85	8.1
3	15:06	25.94	100	5.51	1,520	24.61	3	0.87	8.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 27.37 ft

Comments NA

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G54S

Purge Method: Dedicated pump

Date: 7/20/23 Start Time: 0956 Finish/Sample Time: 11:04

Well Depth (Bottom) From MP: 51.26 ft
Min. Purge Volume: 1.0 Gal (L)
Depth to Water From MP: 23.56 ft
Total Purge Volume: 1.5 Gal (L)
Water Column Length: 27.70 ft
Max Drawdown: ft
Well Water Volume: 16.78 Gal (L)
Total Drawdown: 7.07 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	10:07	25.44	100	6.76	913.00	18.74	-40.5	0.25	425.36
2	10:08	25.62	100	6.76	952.77	18.78	-41.3	0.23	629.52
3	10:10	25.73	100	6.76	953.81	18.61	-41.8	0.21	744.26
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aqua-tron 6000

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)
1	2.5L P HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	500 AV 40mL H2SO4

Final DTW: 30.63 ft

Comments Soluble Iron = 1.968 ppm

Sampler's Signature: Mark Welch

BG

WELL/SAMPLE POINT **G54S**

Purge Method: low-flow

Date: 2-15-23 Start Time: 15:28 Finish/Sample Time: 15:56

Well Depth (Bottom) From MP: 51.26 ft
Min. Purge Volume: 1.0 Gal / L
Depth to Water From MP: 23.44 ft
Total Purge Volume: 1.3 Gal / L
Water Column Length: 27.82 ft
Max Drawdown: NA ft
Well Water Volume: 4.45 Gal / L
Total Drawdown: 2.47 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	15:41	25.03	1.72	5.89	945	23.34	7	2.34	3.7
2	15:42	25.08	1.02	5.88	952	23.35	3	2.31	3.2
3	15:43	25.15	1.00	5.88	947	23.41	-1	2.21	3.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HANNA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 25.91 ft

Comments NA

Sampler's Signature: [Signature]

BC

Duck Creek

WELL/SAMPLE POINT G57S

Purge Method: dedicated pump

Date: 7/20/23 Start Time: 12:12 Finish/Sample Time: 1320

Well Depth (Bottom) From MP: 37.40 ft Min. Purge Volume: 1.0 Gal ①
Depth to Water From MP: 22.12 ft Total Purge Volume: 1.5 Gal ①
Water Column Length: 15.28 ft Max Drawdown: — ft
Well Water Volume: 9.25 Gal ① Total Drawdown: 0.88 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1226	22.73	100	6.71	1211.5	17.91	62.2	1.54	10.19
2	1227	22.74	100	6.72	1202.3	17.81	59.2	1.50	11.11
3	1228	22.75	100	6.72	1192.0	17.81	57.9	1.47	10.37
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquastar 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)
1	P 2.5L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	TOC

Final DTW: 23.00 ft

Comments Soluble Iron = 0.078 ppm

Sampler's Signature: [Signature]

BG

WELL/SAMPLE POINT **G57S**

Purge Method: LOW-FLOW

Date: 7-25-23 Start Time: 13:55 Finish/Sample Time: 14:16

Well Depth (Bottom) From MP: 37.40 ft
Depth to Water From MP: 22.26 ft
Water Column Length: 15.14 ft
Well Water Volume: 2.42 Gal / L
Min. Purge Volume: 1.0 Gal / L
Total Purge Volume: 1.3 Gal / L
Max Drawdown: NA ft
Total Drawdown: 0.68 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	14:09	22.95	100	5.57	1330	18.99	214	2.72	2.4
2	14:10	22.94	100	5.84	1350	19.10	216	2.64	2.5
3	14:11	22.95	100	5.83	1330	19.05	207	2.56	3.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 22.94 ft

Comments: NA

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G60L

Purge Method: low flow

Date: 7-20-23 Start Time: 13:27 Finish/Sample Time: 14:41

Well Depth (Bottom) From MP: 27.00 ft Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 12.20 ft Total Purge Volume: 1.3 Gal / L

Water Column Length: 14.80 ft Max Drawdown: NA ft

Well Water Volume: 2.36 Gal / L Total Drawdown: 6.95 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	13:42	13:49	100	5.86	899	19.01	80	2.91	24.1
2	13:43	14:18	100	5.84	898	18.97	83	3.01	20.5
3	13:44	14:30	100	5.82	887	18.86	86	3.09	17.9
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBa

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Qty	Unfiltered Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) 1000 mL
1	2.5, HNO3

Qty	Filtered Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P, 250 mL) 1000 mL
3	TOC, 40, mL

Final DTW: 19.15 ft

Comments Dis iron ~ 1.260

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G60S

Purge Method: Portable pump

Date: 7/20/23 Start Time: 1343 Finish/Sample Time: 1453

Well Depth (Bottom) From MP: 39.20 ft Min. Purge Volume: 1.0 Gal / (C)

Depth to Water From MP: 24.63 ft Total Purge Volume: 1.6 Gal (L)

Water Column Length: 14.57 ft Max Drawdown: — ft

Well Water Volume: 8.82 Gal / L Total Drawdown: 0.45 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1356	25.72	100	6.65	957.70	22.15	-34.6	1.00	1879
2	1358	25.78	100	6.66	961.34	22.08	-34.6	0.97	1763
3	1359	25.75	100	6.66	962.60	22.01	-35.6	0.93	1842
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatrill 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)
1	P 250L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	Toc

Final DTW: 25.08 ft

Comments Soluble Iron = 26.0 ppm

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G64L

Purge Method: bailer

Date: 7/27/23 Start Time: 11:00 Finish/Sample Time: 12:00

Well Depth (Bottom) From MP: 30.46 ft Min. Purge Volume: 1.0 Gal (L)

Depth to Water From MP: 22.80 ft Total Purge Volume: 1.0 Gal (L)

Water Column Length: 7.66 ft Max Drawdown: ft

Well Water Volume: 4.64 Gal (L) Total Drawdown: 1.42 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	11:33	23.29	—	7.05	920.00	19.77	116.2	3.71	315.31
2									
3									
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 6000

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) - 1L
1	rad 2.5L

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P, 250 mL) - 1L
3	TOC 40mL

Final DTW: 24.22 ft

Comments: 21015088 soluble iron - 009 ppm
not enough water for submersible

Sampler's Signature: _____

Duck Creek

WELL/SAMPLE POINT G64S

Purge Method: Bladder Pump

Date: 7/25/23 Start Time: 1505 Finish/Sample Time: 1623

Well Depth (Bottom) From MP: 39.50 ft Min. Purge Volume: 1.0 Gal/L
Depth to Water From MP: 24.18 ft Total Purge Volume: Gal/L
Water Column Length: 15.32 ft Max Drawdown: ft
Well Water Volume: 9.27 Gal/L Total Drawdown: ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1520	24.87	100	6.80	696.36	17.35	-37.6	2.16	14.29
2	1521	24.86	100	6.81	701.98	17.31	-37.7	2.20	10.80
3	1522	24.86	100	6.82	702.51	17.22	-38.4	2.11	9.92
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

AT 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P. 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)
1	Rad 2.5 L

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	TOC

Final DTW: 25.02 ft

Comments Ferrous Iron - 1.590

Sampler's Signature:

Joseph R. Roel

Duck Creek

WELL/SAMPLE POINT **X301 Pump House**

Purge Method:

Leachate pump

Date:

7-20-23

Start Time:

14:53

Finish/Sample Time:

1512

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1511			6.77	5330.3	20.69	18.1	1.86	17.38
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

HANNA KL

Sample Appearance:

AT 600

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)
1	<u>P 2.5L HNO3</u>

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	<u>Tec</u>

Ferrous Iron -

mg/L

Comments

Soluble Iron = 0.142 ppm

Sampler's Signature:

[Signature]

Duck Creek

WELL/SAMPLE POINT **X301 Pump House**

Purge Method: _____

Date: 7-25-23 Start Time: 15:59 Finish/Sample Time: 16:06

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	16:02			5.85	5,500	23.36	96	2.96	0.7
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Comments: NA

Sampler's Signature: [Signature]

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD NW			Location:	Vistula Duck Creek				
Weather:	73-79° cloudy wind NNW 5mph			Environment:	Grass				
Multiparameter Water Meter	Make:	Aquatroll	Model:	600	Serial Number:	480944			
Water Level Meter	Make:	Heron	Model:	dipper _T	Serial Number:	11FF2209305ML			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	Pass	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	10.80	µS/cm	0-25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1973.3	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	223.3	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.95	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time:	09:20		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.13	s.u.	±0.15 s.u.	Pass	N/A	Geotech	2GE870	Mar-24	
pH 7.00b	10.97	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24	
pH 10.00b	9.91	s.u.	±0.15 s.u.			Geotech	2GE820	May-24	
SC 1000	980.40	µS/cm	±5%			Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:	1546		
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	Pass	N	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.08	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	997.20	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Nicole Welch		Date:	7/18/23	
------------	--------------	--	-------	---------	--

364526
Oct 23
7/21

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Brendan Glennon</u>				Location: <u>Duck Creek Power Station</u>					
Weather: <u>70° Cloudy 3 mph W</u>				Environment: <u>Grass field</u>					
Multiparameter Water Meter		Make: <u>ACQ</u>	Model: <u>600</u>	Serial Number: <u>762193</u>					
Water Level Meter		Make: <u>Heron</u>	Model: <u>200F1</u>	Serial Number: <u>19FF21119248</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.91</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>5.38</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1950.5</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Geotech	3GA1071	Jan-24
ORP	<u>221.0</u>	mV	±15 mV	<u>P</u>	<u>N</u>	<u>N/A</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.07</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.77</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>6:19</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.05</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE870	May-24	
pH 7.00b	<u>6.83</u>	s.u.	±0.15 s.u.	<u>F</u>	<u>N/A</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>9.85</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24	
SC 1000	<u>1012.6</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4209A12	Aug-23	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: Only 1 well

Signature: <u>Brendan Glennon</u>	Date: <u>7/18/23</u>
-----------------------------------	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyle Lane				Location: Duck Creek			
Weather: 81° Sunny				Environment: DRY			
Multiparameter Water Meter		Make: Hanna	Model: u-500	Serial Number: PW264023			
Water Level Meter		Make: Hanna	Model: Water Tape	Serial Number: 19FF 21119248			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.48	s.u.	±0.1 s.u.	P	Yes	3.98	MSI	L344-09	12/14/2023
pH 7.00a	6.79	s.u.	±0.1 s.u.	P	Yes	6.98	MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	No	na	MSI	M082-04	3/25/2024
SC Zero (DI)	20.10	µS/cm	0<25 µS/cm	P	Yes	na	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P	Yes	na	Geotech	3GA1071	Jan-24
ORP	214	mV	±15 mV	P	Yes	na	InSitu	2G1762	Jun-23
DO (Zero pt)	0.08	mg/L	±0.1	P	Yes	na	Macron	#000228049	8/26/2025
DO (Saturated)	97.60	%	97-100%	P	Yes	na	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	Yes	na	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 16:04			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.89	s.u.	±0.15 s.u.	P	na	Geotech	2GE870	Mar-24	
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	na	Geotech	2GC931	Mar-24	
pH 10.00b	9.88	s.u.	±0.15 s.u.	P	na	Geotech	2GE820	May-24	
SC 1000	1010	µS/cm	±5%	P	na	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 16:04			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 16:04			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.09	s.u.	±0.1 s.u.	P	Na	Na	MSI	L344-09	12/14/2023
7.00a	6.97	s.u.	±0.1 s.u.	P	Na	Na	MSI	L343-07	12/9/2023
10.00a	10.07	s.u.	±0.1 s.u.	P	Na	Na	MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%	P	Na	Na	Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	Na	Na	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	Na	Na	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: [Signature]		Date: 7-18-23
-------------------------------	--	----------------------

3GA 52W
Det 23
4/21

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Plumberger			Location:	Duck Creek				
Weather:	69-80° mostly cloudy wind NE 3-10k			Environment:	grass, dirt, dust				
Multiparameter Water Meter	Make:	A-T	Model:	600	Serial Number:	762215			
Water Level Meter	Make:	Heron	Model:	Dipart	Serial Number:	3717-7			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.96	s.u.	±0.1 s.u.	P			MSI	L343-07	12/9/2023
pH 10.00a	6.96	s.u.	±0.1 s.u.	P			MSI	M082-04	3/25/2024
SC Zero (DI)	19.09	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1002.7	µS/cm	±5%	P			Geotech	3GA1071	Jan-24
ORP	225.7	mV	±15 mV	P			InSitu	261762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.98	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.23	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0925			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.07	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24	
pH 7.00b	6.87	s.u.	±0.15 s.u.	P		Geotech	2GC931	Mar-24	
pH 10.00b	9.95	s.u.	±0.15 s.u.	P		Geotech	2GE820	May-24	
SC 1000	1005.3	µS/cm	±5%	P		Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1500			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.	P			MSI	L343-07	12/9/2023
pH 10.00a	10.10	s.u.	±0.1 s.u.	P			MSI	M082-04	3/25/2024
SC 1000	1033.7	µS/cm	±5%	P			Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	7/18/2023
------------	---	-------	-----------

3GA520
Oct 23
EW 2/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton			Location:	Duck Creek				
Weather:	71°-86°f sunny wind SE 6 mph			Environment:	woods, farm field				
Multiparameter Water Meter	Make:	AT	Model:	600	Serial Number:	739449			
Water Level Meter	Make:	Heron	Model:	Digger 7	Serial Number:	3717-7			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.96	s.u.	±0.1 s.u.	P			MSI	L343-07	12/9/2023
pH 10.00a	9.92	s.u.	±0.1 s.u.	P			MSI	M082-04	3/25/2024
SC Zero (DI)	15.16	µS/cm	0-25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1697.4	µS/cm	±5%	P			Geotech	3GA1071	Jan-24
ORP	225.6	mV	±15 mV	P			InSitu	3G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	99.33	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

230 @ 24°C

ICV (Initial Calibration Verification)					Time:	0855			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24	
pH 7.00b	6.96	s.u.	±0.15 s.u.	P		Geotech	2GC931	Mar-24	
pH 10.00b	9.96	s.u.	±0.15 s.u.	P		Geotech	2GE820	May-24	
SC 1000	986.07	µS/cm	±5%	P		Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1530			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	L343-07	12/9/2023
pH 10.00a	10.09	s.u.	±0.1 s.u.	P			MSI	M082-04	3/25/2024
SC 1000	1004.8	µS/cm	±5%	P			Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	7/19/2023
------------	---	-------	-----------

Multiparameter Meter Field Calibration Checklist

Field Personnel: NW				Location: Duck Creek			
Weather: Sunny wind ESE 10mph 75-88				Environment: Grass			
Multiparameter Water Meter		Make: Aquatro	Model: 600	Serial Number: 480944			
Water Level Meter		Make: Heron	Model: dipper	Serial Number: 11FF2209305ML			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	I	I	MSI	L343-07	12/9/2023
pH 10.00a	9.93	s.u.	±0.1 s.u.	P	I	I	MSI	M082-04	3/25/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm	P	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1835.7	µS/cm	±5%	F	yes	2001.9	Geotech	3GA1071	Jan-24
ORP	220.4	mV	±15 mV	F	N	N/A	InSitu	261762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1	P	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	97.3	%	97-100%	P	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 10:00				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?		Manufacturer	Lot#	Exp.
pH 4.00b	4.06	s.u.	±0.15 s.u.	P	N		Geotech	2GE870	Mar-24
pH 7.00b	6.88	s.u.	±0.15 s.u.	F	calibrate - 7.00		Geotech	2GC931	Mar-24
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	N		Geotech	2GE820	May-24
SC 1000	78.00	µS/cm	±5%	F	calibrate - 1000.0		Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 14:50				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.17	s.u.	±0.1 s.u.	F	yes	4.00	MSI	L344-09	12/14/2023
pH 7.00a	7.17	s.u.	±0.1 s.u.	F	yes	6.99	MSI	L343-07	12/9/2023
pH 10.00a	9.97	s.u.	±0.1 s.u.	P	N	N/A	MSI	M082-04	3/25/2024
SC 1000	970	µS/cm	±5%	P	I	I	Ricca	4207N97	Jul-24
DO (Zero pt)	0.03	mg/L	±0.1 mg/L	P	I	I	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Nicole Welch	Date: 7/19/23
--------------------------------	----------------------

3GA524
Oct 23
7/21

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Brendan Glennon</u>				Location: <u>Duck Creek</u>			
Weather: <u>82° Mostly Sunny 7 mph SE</u>				Environment: <u>Grass Field</u>			
Multiparameter Water Meter		Make: <u>AquaTron</u>	Model: <u>600</u>	Serial Number: <u>762193</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>2004T DIPAFT</u>	Serial Number: <u>19FF 211192HB</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.97</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.65</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1768.6</u>	µS/cm	±5%	<u>F</u>	<u>Y</u>	<u>2000.0</u>	Geotech	3GA1071	Jan-24
ORP	<u>205.1</u>	mV	±15 mV	<u>F</u>	<u>Y</u>	<u>229.0</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.78</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>1.78</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0930</u>	
--	--	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.04</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE870	May-24
pH 7.00b	<u>6.89</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>9.96</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24
SC 1000	<u>1000.06</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4209A12	Aug-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>10:19</u>	
---	--	--	--	--	--	--------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.10</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.91</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1128.1</u>	µS/cm	±5%	<u>F</u>	<u>Y</u>	<u>1000.0</u>	Ricca	4209A12	Aug-23
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>12.20</u>	NTU	<2 NTU	<u>F</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:	
---	--	--	--	--	--	-------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: NO turb cal solution available

Signature: <u>Brendan Glennon</u> <u>Nicole Welch</u>	Date: <u>7/20/23</u>
--	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Kyle Lane			Location:	Duck Creek				
Weather:	83° Sunny			Environment:	wet				
Multiparameter Water Meter	Make:	Haniba	Model:	V-5000	Serial Number:	19FP2202131ML PW59103			
Water Level Meter	Make:	Heron	Model:	water tape	Serial Number:	19FP2202131ML			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	13.00	µS/cm	0<25 µS/cm	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NA	NA	Geotech	3GA1071	Jan-24
ORP	216	mV	±15 mV	P	NA	NA	InSitu	261762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1	P	NA	NA	Macron	#000228049	8/26/2025
DO (Saturated)	48.00	%	97-100%	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	09:34			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.07	s.u.	±0.15 s.u.	P	NA	Geotech	2GE870	Mar-24	
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	NA	Geotech	2GC931	Mar-24	
pH 10.00b	10.13	s.u.	±0.15 s.u.	P	NA	Geotech	2GE820	May-24	
SC 1000	1000	µS/cm	±5%	P	NA	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	NA			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	/	s.u.	±0.1 s.u.	/	/	/	MSI	L344-09	12/14/2023
pH 7.00a	/	s.u.	±0.1 s.u.	/	/	/	MSI	L343-07	12/9/2023
pH 10.00a	/	s.u.	±0.1 s.u.	/	/	/	MSI	M082-04	3/25/2024
SC 1000	/	µS/cm	±5%	/	/	/	Ricca	4207N97	Jul-24
DO (Zero pt)	/	mg/L	±0.1 mg/L	/	/	/	Macron	#000228049	8/26/2025
Turbidity (DI)	/	NTU	<2 NTU	/	/	/	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	15:29			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.08	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
7.00a	7.06	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
10.00a	10.05	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Comments:

NA

Signature:	Kyle Lane	Date:	7-20-2023
------------	-----------	-------	-----------

3GA524
Oct 23
W 7:24

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>				Location: <u>Duck Creek</u>			
Weather: <u>80°-88° Sunny Windy NW 7 mph</u>				Environment: <u>grass, dirt, rock</u>			
Multiparameter Water Meter		Make: <u>Hera</u>	Model: <u>600</u>	Serial Number: <u>739449</u>			
Water Level Meter		Make: <u>Hera</u>	Model: <u>5191</u>	Serial Number: <u>3717-T</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>12.37</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NO</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1945.6</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>NA</u>	Geotech	3GA1071	Jan-24
ORP	<u>223.4</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	<u>NA</u>	InSitu	261762	Jan-23
DO (Zero pt)	<u>0.06</u>	mg/L	±0.1	<u>P</u>	<u>NO</u>	<u>NA</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.67</u>	%	97-100%	<u>P</u>	<u>NO</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

227 @ 25°C

ICV (Initial Calibration Verification)					Time: <u>0920</u>	
--	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.07</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.85</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>9.87</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE820	May-24
SC 1000	<u>1949.00</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1500</u>	
---	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1999.86</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.07</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NO</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
---	--	--	--	--	-------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>[Signature]</u>	Date: <u>7/20/2023</u>
-------------------------------	------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: V. 37th Duck Creek			
Weather: 78-90°F p. cloudy wind W 8-13 mph				Environment: 30 HFF HFF 2209305 ML grass			
Multiparameter Water Meter		Make: Aquatrroll	Model: 600	Serial Number: 762215			
Water Level Meter		Make: Heon	Model: Dipper-T	Serial Number: 11 FF 2209305 ML			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC Zero (DI)	9.67	µS/cm	0<25 µS/cm	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	984.2	µS/cm	±5%	I	I	I	Geotech	3GA1071	Jan-24
ORP	216.3	mV	±15 mV	I	I	I	InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1	I	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	98.55	%	97-100%	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	I	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 0915			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.02	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24	
pH 7.00b	6.86	s.u.	±0.15 s.u.	I	I	Geotech	2GC931	Mar-24	
pH 10.00b	9.91	s.u.	±0.15 s.u.	I	I	Geotech	2GE820	May-24	
SC 1000	779.24	µS/cm	±5%	I	I	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 1531			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.09	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	10.08	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC 1000	981.14	µS/cm	±5%	I	I	I	Ricca	4207N97	Jul-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	I	I	I	Macron	#000228049	8/26/2025
Turbidity (DI)	0.49	NTU	<2 NTU	I	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: 	Date: 7/20/23
--	----------------------

307A520
Oct 23
W 7/21

Multiparameter Meter Field Calibration Checklist

Field Personnel: JD			Location: V.377m Duck Creek						
Weather: 76-90°F sunny wind NNE 6-10 mph			Environment: grass, woods						
Multiparameter Water Meter		Make: Aquatroll	Model: 600	Serial Number: 762215					
Water Level Meter		Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305 ML					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	pass	N.	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	pass	N.	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.03	s.u.	±0.1 s.u.	pass	N.	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	10.26	µS/cm	0<25 µS/cm	pass	N.	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2013.6	µS/cm	±5%	pass	N.	NA	Geotech	3GA1071	Jan-24
ORP	217.4	mV	±15 mV	pass	N.	NA	InSitu	261762	Jun-23
DO (Zero pt)	0.08	mg/L	±0.1	pass	N.	NA	Macron	#000228049	8/26/2025
DO (Saturated)	77.32	%	97-100%	pass	N.	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.62	NTU	<2 NTU	pass	N.	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 0905			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.01	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24	
pH 7.00b	6.85	s.u.	±0.15 s.u.	pass	NA	Geotech	2GC931	Mar-24	
pH 10.00b	9.89	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE820	May-24	
SC 1000	1009.4	µS/cm	±5%	pass	NA	Ricca	4207N97	Jul-24	

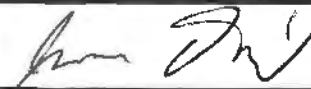
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 1545			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	pass	N.	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.06	s.u.	±0.1 s.u.	pass	N.	NA	MSI	L343-07	12/9/2023
pH 10.00a	9.78	s.u.	±0.1 s.u.	pass	N.	NA	MSI	M082-04	3/25/2024
SC 1000	102.22	µS/cm	±5%	pass	N.	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	pass	N.	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0.62	NTU	<2 NTU	pass	N.	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: 	Date: 7/24/23
--	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel:	NIN				Location:	Duck Creek			
Weather:	76-89°F Sunny wind 2mph E				Environment:	Grass			
Multiparameter Water Meter	Make:	Aquatroil	Model:	6000	Serial Number:	739449			
Water Level Meter	Make:	Heron	Model:	1900	Serial Number:	19FF211192HB			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	17.05	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1702.1	µS/cm	±5%	F	yes	2000.0	Geotech	3GA1071	Jan-24
ORP	218.0	mV	±15 mV	P	yes	N/A	InSitu	3GD927	Jan-24
DO (Zero pt)	0.03	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	97.3	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	08:50			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.09	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	May-24	
pH 7.00b	6.91	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24	
pH 10.00b	9.90	s.u.	±0.15 s.u.	P		Geotech	2GE820	May-24	
SC 1000	1129.5	µS/cm	±5%	F	yes - calibrate: 1000	Ricca	4209A12	Aug-23	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	14:55			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.	F	yes		MSI	023051-02	2/21/2025
pH 10.00a	9.80	s.u.	±0.1 s.u.	F	yes	10.0	MSI	022361-01	12/27/2024
SC 1000	1382.3	µS/cm	±5%	F	yes	1000.0	Ricca	4209A12	Aug-23
DO (Zero pt)	0.03	mg/L	±0.1 mg/L	P	yes	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.87	NTU	<2 NTU	P	yes		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Nicole Welen	Date: 7/24/23
-------------------------	---------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Jon Reed</u>		Location: <u>Duck Creek</u>	
Weather: <u>90° Sunny</u>		Environment: <u>grassy / dry</u>	
Multiparameter Water Meter	Make: <u>AquaTroll</u>	Model: <u>600</u>	Serial Number: <u>762193</u>
Water Level Meter	Make: <u>Heron</u>	Model: <u>1900</u>	Serial Number: <u>19FF211105HB</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>3.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	L344-09	12/14/2023
pH 7.00a	<u>6.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	L343-07	12/9/2023
pH 10.00a	<u>9.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	M082-04	3/25/2024
SC Zero (DI)	<u>9.44</u>	µS/cm	0<25 µS/cm	<u>I</u>	<u>I</u>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2000.4</u>	µS/cm	±5%	<u>I</u>	<u>I</u>		Geotech	3GA1071	Jan-24
ORP	<u>230.1</u>	mV	±15 mV	<u>I</u>	<u>I</u>		InSitu	23000	Jan-24
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1	<u>I</u>	<u>I</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>98.9</u>	%	97-100%	<u>I</u>	<u>I</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>950</u>	
--	--	--	--	--	------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>3.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.96</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>9.99</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GE820	May-24
SC 1000	<u>1019.4</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1612</u>	
---	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	L344-09	12/14/2023
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	L343-07	12/9/2023
pH 10.00a	<u>10.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	M082-04	3/25/2024
SC 1000	<u>1032.1</u>	µS/cm	±5%	<u>I</u>	<u>I</u>		Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1 mg/L	<u>I</u>	<u>I</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
---	--	--	--	--	-------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>Jon R Reed</u>	Date: <u>7/24/23</u>
------------------------------	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyle Lowe</u>				Location: <u>Duck Creek</u>					
Weather: <u>81° Sunny</u>				Environment: <u>dry</u>					
Multiparameter Water Meter:		Make: <u>Hanna</u>	Model: <u>V-500</u>	Serial Number: <u>PW267503</u>					
Water Level Meter		Make: <u>Heron</u>	Model: <u>water tape</u>	Serial Number: <u>19FF2202131ML</u>					

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.95</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>14.10</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2020</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Geotech	3GA1071	Jan-24
ORP	<u>215</u>	mV	±15 mV	<u>P</u>	<u>NA</u>	<u>NA</u>	InSitu	201702	Jun-23
DO (Zero pt)	<u>0.01</u>	mg/L	±0.1	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>92.10</u>	%	97-100%	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>08:59</u>			
--	--	--	--	--	--	--------------------	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>3.97</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>9.88</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE820	May-24
SC 1000	<u>1040</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>NA</u>			
---	--	--	--	--	--	-----------------	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	M082-04	3/25/2024
SC 1000	<u>/</u>	µS/cm	±5%	<u>/</u>	<u>/</u>	<u>/</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>/</u>	mg/L	±0.1 mg/L	<u>/</u>	<u>/</u>	<u>/</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>/</u>	NTU	<2 NTU	<u>/</u>	<u>/</u>	<u>/</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>16:06</u>			
---	--	--	--	--	--	--------------------	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
7.00a	<u>7.06</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
10.00a	<u>10.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1000</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.06</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Comments:

NA

Signature: <u>Kyle Lowe</u>	Date: <u>7-24-23</u>
-----------------------------	----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: NW				Location: Duck Creek			
Weather: Sunny 80-92°F, wind SSE 10mph				Environment: Grass			
Multiparameter Water Meter		Make: Aquatroll	Model: 1000	Serial Number: 739449			
Water Level Meter		Make: Heron	Model: 1900	Serial Number: 19FF211192HB			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	I	I	MSI	023051-02	2/21/2025
pH 10.00a	9.92	s.u.	±0.1 s.u.	P	I	I	MSI	022361-01	12/27/2024
SC Zero (DI)	17.99	µS/cm	0<25 µS/cm	P	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2203.7	µS/cm	±5%	F	yes	2000.0	Geotech	3GA1071	Jan-24
ORP	213.3	mV	±15 mV	P	N	N/A	InSitu	3GD927	Jan-24
DO (Zero pt)	0.08	mg/L	±0.1	P	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	99.8	%	97-100%	P	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 09:10			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.21	s.u.	±0.15 s.u.	F	calibrate - 4.00	Geotech	2GE870	May-24	
pH 7.00b	6.82	s.u.	±0.15 s.u.	F	calibrate - 7.00	Geotech	2GF113	Jun-24	
pH 10.00b	9.85	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE820	May-24	
SC 1000	720.85	µS/cm	±5%	F	calibrate - 1000.0	Ricca	4209A12	Aug-23	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 14:27 NW 16:27			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	I	I	MSI	023051-02	2/21/2025
pH 10.00a	9.90	s.u.	±0.1 s.u.	P	I	I	MSI	022361-01	12/27/2024
SC 1000	1039.1	µS/cm	±5%	F	yes	1000.0	Ricca	4209A12	Aug-23
DO (Zero pt)	0.07	mg/L	±0.1 mg/L	P	N	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.70	NTU	<2 NTU	P	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Nicore Welton	Date: 7/25/23
---------------------------------	----------------------

3GA526
Exp. Oct. 23
BE 7/26/23

Multiparameter Meter Field Calibration Checklist

Field Personnel: NW		Location: Duck Creek	
Weather: Sunny 74-90°F Wind 4 mph SSE		Environment: Grass	
Multiparameter Water Meter	Make: Aquatroll	Model: 000	Serial Number: 762215
Water Level Meter	Make: Heron	Model: 1900	Serial Number: 19FF211192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	I		MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	I		MSI	022361-01	12/27/2024
SC Zero (DI)	2.654	µS/cm	0<25 µS/cm	P	I		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1755.9	µS/cm	±5%	F	YES	2000.0	Geotech	3GA1071	Jan-24
ORP	216.0	mV	±15 mV	P	N	N/A	InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1	P	I		Macron	#000228049	8/26/2025
DO (Saturated)	98.71	%	97-100%	P	I		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.01	NTU	<2 NTU	P	I		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 09:40				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	May-24	
pH 7.00b	6.90	s.u.	±0.15 s.u.	P	I	Geotech	2GF113	Jun-24	
pH 10.00b	9.90	s.u.	±0.15 s.u.	P	I	Geotech	2GE820	May-24	
SC 1000	1118.10	µS/cm	±5%	F	Calibrate - 1000.0	Ricca	4209A12	Aug-23	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 11:17				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.24	s.u.	±0.1 s.u.	F	YES	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.	P	N	N/A	MSI	022361-01	12/27/2024
SC 1000	1043.0	µS/cm	±5%	F	YES	1000.0	Ricca	4209A12	Aug-23
DO (Zero pt)	0.03	mg/L	±0.1 mg/L	P	N	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.95	NTU	<2 NTU	P	I		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Nick Welch	Date: 7/27/23
------------------------------	----------------------

BC

Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyle Lora				Location: Duck Creek					
Weather: 96° Sunny				Environment: Dry					
Multiparameter Water Meter:		Make: HANNA	Model: U-5000	Serial Number: PW267JP3					
Water Level Meter		Make: HANNA	Model: Water tape	Serial Number: 19FF-2202131ML					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	20.10	µS/cm	<25 µS/cm	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NA	NA	Geotech	3GA1071	Jan-24
ORP	216	mV	±15 mV	P	NA	NA	InSitu	2G1762	Jun-23
DO (Zero pt)	0.01	mg/L	±0.1	P	NA	NA	Macron	#000228049	8/26/2025
DO (Saturated)	95.10	%	97-100%	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time: 10:23				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	NA	Geotech	2GE870	Mar-24	
pH 7.00b	6.93	s.u.	±0.15 s.u.	P	NA	Geotech	2GC931	Mar-24	
pH 10.00b	10.00	s.u.	±0.15 s.u.	P	NA	Geotech	2GE820	May-24	
SC 1000	1020	µS/cm	±5%	P	NA	Ricca	4207N97	Jul-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: NA				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Comments:									
Signature: Hegen					Date: 7-27-23				

Multiparameter Meter Field Calibration Checklist

Field Personnel: KL JR				Location: Duck Creek					
Weather: 75° Sunny				Environment: Dr					
Multiparameter Water Meter		Make: Haniba	Model: V-5000	Serial Number: PW264JD3					
Water Level Meter		Make: Heron	Model: Water tape	Serial Number: 19FF 2202131ML					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	2.0.00	µS/cm	0<25 µS/cm	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2.030	µS/cm	±5%	P	NA	NA	Geotech	3GA1071	Jan-24
ORP	213	mV	±15 mV	P	NA	NA	InSite	2G1762	Jun-23
DO (Zero pt)	0.02	mg/L	±0.1	P	NA	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.04	%	97-100%	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 09:53			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	NA	Geotech	2GE870	Mar-24	
pH 7.00b	6.99	s.u.	±0.15 s.u.	P	NA	Geotech	2GC931	Mar-24	
pH 10.00b	10.00	s.u.	±0.15 s.u.	P	NA	Geotech	2GE820	May-24	
SC 1000	1010	µS/cm	±5%	P	NA	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: NA			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 15:00			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.07	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
7.00a	6.99	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
10.00a	10.03	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: H. Gae	Date: 7-31-2023
--------------------------	------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: JR K2				Location: Duck Creek			
Weather: 70°-86° Sunny wind 3-4 mph				Environment: grass			
Multiparameter Water Meter		Make: Horiba	Model: U500	Serial Number: PW26YJD3			
Water Level Meter		Make: Heron	Model: 1900	Serial Number: 19 FF 2202131ML			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	N		MSI	023051-02	2/21/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0-25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	N		Geotech	3GA1071	Jan-24
ORP	238	mV	±15 mV	P	N		InSitu	3GD927	Jan-24
DO (Zero pt)	0.04	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	98.5	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	May-24
pH 7.00b	7.00	s.u.	±0.15 s.u.	P	N	Geotech	2GF113	Jun-24
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24
SC 1000	1010	µS/cm	±5%	P	N	Ricca	4209A12	Aug-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)	0.04	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: **Joseph A. Reed** Date: **8/10/23**

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Visira Corp Address: 13498 E. 900th St Email To: Brian.Voelker@VisiraCorp.com Phone: (217) 753-9911 Fax: _____ Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Jason Stuckey Purchase Order No.: _____ Project Name: _____ Project Number: 2285		Section C Invoice Information: Attention: Jason Stuckey Company Name: Visira Corp Address: see Section A Quote Reference: _____ Project Manager: _____ Profile #: _____	
Regulatory Agency NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> OTHER <input type="checkbox"/>		Site Location STATE: IL		Project No./ Lab I.D.	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WATER WW WASTE WATER WWP PRODUCT P SOIL/SOLID S OIL OIL 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 ↑	Y/N ↑	ACCEPTED BY / AFFILIATION							DATE	TIME	SAMPLE CONDITIONS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
1		G04S	WT G	WT G	7/18/23	1338		3	X	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									</

ADDITIONAL COMMENTS DC-23Q3 Rev 0		RELINQUISHED BY / AFFILIATION <i>Jim Dm</i>	DATE 7/18/23	TIME 1716	ACCEPTED BY / AFFILIATION <i>James Dard</i>	DATE 7/18/23	TIME 1716	Temp in °C 3.6	Received on Ice (Y/N) <input checked="" type="checkbox"/>	Custody Sealed (Y/N) <input checked="" type="checkbox"/>	Cooler (Y/N) <input checked="" type="checkbox"/>	Samples Intact (Y/N) <input checked="" type="checkbox"/>
---	--	--	------------------------	---------------------	--	------------------------	---------------------	--------------------------	--	---	--	---

DATE Signed (MM/DD/YY): **7/18/23**

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
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

DC-257-203

Page: 2 of 7

Section A Required Client Information:

Company:	Vistra Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey
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
Phone:	(217) 753-8911	Project Name:		Quote Reference:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Project Manager:	
				Profile #:	

Section B Required Project Information:

Regulatory Agency:	IL
NPDES	UST
GROUND WATER	RCRA
DRINKING WATER	OTHER
Site Location	STATE:
DC-257-203	6603019

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information		Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOILSOLID SL OIL WP 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 ↑	Y/N	DC-257-205	DC-SUP-000	DC-845-205	DC-845-201-202	DC-257-203	DC-845-203	DC-257-204	DC-811-204	DC-WPCP-203-206	DC-CLOSURE-201-202	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	G72L			WT	G	7/13/23	1517		2	X	X																						
2	R72S						1440		2	X	X																						
3	G71L						1404		2	X	X																						
4	G71S						1332		2	X	X																						
5	G70L						1255		2	X	X																						
6	G66S						1214		2	X	X																						
7	G66L						1135		2	X	X																						
8	G67L						1051		2	X	X																						
9	G67S						1011		2	X	X																						
10	EB1						1700		2	X	X																						
11	EB2						1700		4	X	X	X	X																				
12																																	
13																																	
14																																	
15																																	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on	Custody Sealed	Cooler (Y/N)	Samples Intact (Y/N)
DC-23Q3 Rev 0	me Dwi	7/13/23	1716	James David	7-18-23	1716	3.6	Y	N	N	Y
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: James David SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YY): 7/18/23											

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

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTEWATER WW WASTE WATER WP 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 ↓ Y/N ↑	Requested Analysis Filtered (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	DC-257-205	DC-SUP-000	DC-845-205	DC-845-203	DC-257-204	DC-811-204	DC-WPCP-203-206	
1			WT 6	7/20/23	1218		11																		
2					1104		11																		
3					1220		11																		
4					1235		11																		
5					1235		11																		
6					1400		11																		
7					1453		11																		
8					1314		2																		
9					1133		2																		
10					1051		2																		
11					1355		2																		
12					1214		2																		
13					1441		11																		
14					136		2																		
15					1315		2																		
16					1218		2																		

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / -)

Sample IDs MUST BE UNIQUE

ADDITIONAL COMMENTS

DC-23Q3 Rev 0

RELINQUISHED BY / AFFILIATION

7/20/23 1721

DATE

7/20/23

TIME

1721

ACCEPTED BY / AFFILIATION

Van Dyke

DATE

7-20-23

TIME

1722

SAMPLE CONDITIONS

Y N Y N Y

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

DC-257-203

Page: 5 of 7


70

CHAIN-OF-CUSTODY / Analytical Request Document

Page: 7 of 7

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information		Page: 7 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
				Address: see Section A		NPDES GROUND WATER DRINKING WATER	
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No:		Quote Reference:		UST RCRA OTHER	
Phone: (217) 753-8911 Fax:		Project Name:		Project Manager:		Site Location:	
Requested Due Date/TAT: 10 day		Project Number: 2285		Profile #:		STATE: IL 6604417	

[illegible]

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: Joe Reed					
SIGNATURE of SAMPLER: 	DATE Signed (MM/DD/YY): 7/25/23				

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Vistra Corp Address: 13498 E. 900th St Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Jason Stuckey Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Jason Stuckey Company Name: Vistra Corp Address: see Section A Quote Reference: Project Manager: Profile #		Page: 1 of 7	
Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE		Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTE WATER P PRODUCT P SOLID/SOLID SL OIL OL WIFE WP AIR AR OTHER OT TISSUE TS		Preservatives H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other		Requested Analysis Filtered (Y/N)	
# ITEM #		MATRIX CODE (see valid codes to left)		SAMPLE TYPE (G=GRAB C=COMP)		COLLECTED DATE TIME	
1 OM01		WTG		G		7/25/23 1241	
2 OM01 DUP		I		I		7/25/23 1241	
3 G54L		I		I		7/25/23 1523	
4 G54S		I		I		7/25/23 1556	
5 G57S		I		I		7/25/23 1426	
6 X301		I		I		7/25/23 1606	
7		I		I		7/25/23 1606	
8		I		I		7/25/23 1606	
9		I		I		7/25/23 1606	
10		I		I		7/25/23 1606	
11		I		I		7/25/23 1606	
12		I		I		7/25/23 1606	
13		I		I		7/25/23 1606	
14		I		I		7/25/23 1606	
15		I		I		7/25/23 1606	
16		I		I		7/25/23 1606	

ADDITIONAL COMMENTS DC-23Q3 Rev 0		RELINQUISHED BY / AFFILIATION <i>James Dond</i>		DATE 7/25/23		TIME 1722		ACCEPTED BY / AFFILIATION <i>James Dond</i>		DATE 7/25/23		TIME 1722		SAMPLE CONDITIONS Received on Ice (Y/N) Y Custody Sealed (Y/N) N Samples Intact (Y/N) Y	
Project No. / Lab I.D.		Residual Chlorine (Y/N)		DC-257-205		DC-845-205		DC-845-201-202		DC-257-203		DC-845-203		DC-257-204	
DC-257-206		DC-811-204		DC-WPCP-203-206		DC-CLOSURE-201-202		DC-257-203		DC-845-203		DC-257-204		DC-845-203	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 7

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-257-203

Section A Required Client Information:

Company: **Visira Corp**
 Address: **13498 E. 900th St**
 Email To: **Brian.Voelker@VisiraCorp.com**
 Phone: **(217) 753-8911** Fax:
 Requested Due Date/TAT: **10 day**

Section B Required Project Information:

Report To: **Brian Voelker**
 Copy To: **Jason Stuckey**
 Purchase Order No.:
 Project Name:
 Project Number: **2285**

Section C Invoice Information:

Attention: **Jason Stuckey**
 Company Name: **Visira Corp**
 Address: **see Section A**
 Guide Reference:
 Project Manager:
 Profile #:

REGULATORY AGENCY

NPDES **GROUND WATER** **DRINKING WATER**
 UST **RCRA** **OTHER**
 Site Location **IL**
 STATE: **0304978**

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information	Valid Matrix Codes INITIALS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED DATE	TIME	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Y/N	DC-257-205	DC-SUP-000	DC-845-205	DC-845-201-202	DC-257-203	DC-845-203	DC-257-204	DC-811-204	DC-WPCP-203-206	DC-CLOSURE-201-202	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	0 M12	DRINKING WATER	0 M12	WATER	7/27/23	1602	11														
2	0 M23D	WASTE WATER	0 M23D	WASTE WATER	7/27/23	1412	11														
3	0 M24D	PRODUCT	0 M24D	PRODUCT	7/27/23	1540	11														
4	0 M25D	WASTE WATER	0 M25D	WASTE WATER	7/27/23	1428	11														
5	0 M26L	WASTE WATER	0 M26L	WASTE WATER	7/27/23	1400	11														
6	0 M27L	WASTE WATER	0 M27L	WASTE WATER	7/27/23	1400	11														
7	0 M28L	WASTE WATER	0 M28L	WASTE WATER	7/27/23	1206	11														
8	0 M29L	WASTE WATER	0 M29L	WASTE WATER	7/27/23	1258	2														
9	0 M30D	WASTE WATER	0 M30D	WASTE WATER	7/27/23	1634	2														
10	0 M31D	WASTE WATER	0 M31D	WASTE WATER	7/27/23	1101	2														
11	0 M32A	WASTE WATER	0 M32A	WASTE WATER	7/27/23	1135	2														
12	0 M33A	WASTE WATER	0 M33A	WASTE WATER	7/27/23	1159	2														
13	0 M34A	WASTE WATER	0 M34A	WASTE WATER	7/27/23	1219	2														
14	0 M35S	WASTE WATER	0 M35S	WASTE WATER	7/27/23	1241	2														
15	0 M36D	WASTE WATER	0 M36D	WASTE WATER	7/27/23	1634	1														
16	0 M37L	WASTE WATER	0 M37L	WASTE WATER	7/27/23	0000	1														

ADDITIONAL COMMENTS: **DC-23Q3 Rev 0**

RELINQUISHED BY / AFFILIATION: **Jason Stuckey** DATE: **7/27/23** TIME: **1838**

ACCEPTED BY / AFFILIATION: **Jason Stuckey** DATE: **7/27/23** TIME: **1838**

SAMPLER NAME AND SIGNATURE: **Jason Stuckey**

PRINT Name of SAMPLER: **Jason Stuckey**

SIGNATURE of SAMPLER: **Jason Stuckey**

DATE Signed (MM/DD/YY): **7/27/23**

Temp in °C: **4.4**

Received on: **7/27/23**

Ice (Y/N): **N**

Custody: **N**

Cooled (Y/N): **N**

Samples Intact (Y/N): **N**



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

January 02, 2024

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

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

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

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Diane Billings".

Diane Billings
Project Manager



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order	GJ03182
------------	---------

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



Work Order GJ03740

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



Work Order GJ03961

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



Work Order GJ04131

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



Work Order GJ04861

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



Work Order GJ04997

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



Work Order GJ05390

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



ANALYTICAL RESULTS

Sample: GJ03740-03
Name: G02S
Matrix: Ground Water - Grab

Sampled: 10/19/23 14:30
Received: 10/19/23 16:42
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.3	mg/L		10/20/23 17:33	1	1.0	10/20/23 17:33	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/20/23 17:33	1	0.250	10/20/23 17:33	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		10/20/23 17:33	1	1.0	10/20/23 17:33	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.21	Feet		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Dissolved oxygen, Field	0.50	mg/L		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Oxidation Reduction Potential	-97.0	mV		10/19/23 14:30	1	-500	10/19/23 14:30	FIELD	Field*
pH, Field Measured	6.71	pH Units		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Specific Conductance, Field Measured	873.0	umhos/cm		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Temperature, Field Measured	56.7	°F		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Temperature, Field Measured	13.7	°C		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Turbidity, Field Measured	0.100	NTU		10/19/23 14:30	1	0.00	10/19/23 14:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	420	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	430	mg/L		10/24/23 11:20	1	26	10/24/23 15:20	OGS	SM 2540C
Total Metals - PIA									
Boron	40	ug/L		10/23/23 09:11	5	10	10/26/23 12:22	TJJ	EPA 6020A
Calcium	96	mg/L		10/23/23 09:11	5	0.20	10/25/23 16:07	TJJ	EPA 6020A
Magnesium	38	mg/L		10/23/23 09:11	5	0.10	10/25/23 16:07	TJJ	EPA 6020A
Potassium	0.72	mg/L		10/23/23 09:11	5	0.10	10/25/23 16:07	TJJ	EPA 6020A
Sodium	14	mg/L		10/23/23 09:11	5	0.10	10/25/23 16:07	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ03961-08
Name: G57S
Matrix: Ground Water - Grab

Sampled: 10/20/23 12:47
Received: 10/20/23 16:14
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	15	mg/L		10/21/23 02:56	10	10	10/21/23 02:56	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/25/23 04:55	1	0.250	10/25/23 04:55	TMS	EPA 300.0 REV 2.1
Sulfate	46	mg/L		10/21/23 02:56	10	10	10/21/23 02:56	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.83	Feet		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Dissolved oxygen, Field	9.2	mg/L		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Oxidation Reduction Potential	78.0	mV		10/20/23 12:47	1	-500	10/20/23 12:47	FIELD	Field*
pH, Field Measured	6.41	pH Units		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Specific Conductance, Field Measured	1400	umhos/cm		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Temperature, Field Measured	15.0	°C		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Temperature, Field Measured	59.0	°F		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Turbidity, Field Measured	36.2	NTU		10/20/23 12:47	1	0.00	10/20/23 12:47	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	710	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	820	mg/L		10/25/23 11:18	1	26	10/25/23 15:27	CPS	SM 2540C
Total Metals - PIA									
Boron	< 10	ug/L		10/23/23 09:11	5	10	10/26/23 12:26	TJJ	EPA 6020A
Calcium	170	mg/L		10/23/23 09:11	5	0.20	10/25/23 17:21	TJJ	EPA 6020A
Magnesium	99	mg/L		10/23/23 09:11	5	0.10	10/25/23 17:21	TJJ	EPA 6020A
Potassium	0.45	mg/L		10/23/23 09:11	5	0.10	10/25/23 17:21	TJJ	EPA 6020A
Sodium	12	mg/L		10/23/23 09:11	5	0.10	10/25/23 17:21	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04131-02
Name: G50S
Matrix: Ground Water - Grab

Sampled: 10/23/23 16:09
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	10	mg/L	Q4	10/30/23 22:18	10	10	10/30/23 22:18	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/30/23 21:23	1	0.250	10/30/23 21:23	CRD	EPA 300.0 REV 2.1
Sulfate	42	mg/L	Q4	10/30/23 22:18	10	10	10/30/23 22:18	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	18.94	Feet		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Dissolved oxygen, Field	48	mg/L		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Oxidation Reduction Potential	-47.0	mV		10/23/23 16:09	1	-500	10/23/23 16:09	FIELD	Field*
pH, Field Measured	7.08	pH Units		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Specific Conductance, Field Measured	747.0	umhos/cm		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Temperature, Field Measured	64.0	°F		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Temperature, Field Measured	17.8	°C		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Turbidity, Field Measured	21.8	NTU		10/23/23 16:09	1	0.00	10/23/23 16:09	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	340	mg/L		11/02/23 13:24	1	10	11/02/23 13:24	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/02/23 13:24	1	10	11/02/23 13:24	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	610	mg/L		10/25/23 11:20	1	26	10/25/23 14:25	OGS	SM 2540C
Total Metals - PIA									
Boron	22	ug/L		10/26/23 08:40	5	10	11/01/23 11:39	TJJ	EPA 6020A
Calcium	87	mg/L		10/26/23 08:40	5	0.20	10/31/23 14:29	TJJ	EPA 6020A
Magnesium	35	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:29	TJJ	EPA 6020A
Potassium	0.33	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:29	TJJ	EPA 6020A
Sodium	8.8	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:29	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04131-03
Name: G60L
Matrix: Ground Water - Grab

Sampled: 10/23/23 11:48
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	9.3	mg/L		10/30/23 22:54	5	5.0	10/30/23 22:54	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/30/23 22:36	1	0.250	10/30/23 22:36	CRD	EPA 300.0 REV 2.1
Sulfate	170	mg/L		10/30/23 23:12	25	25	10/30/23 23:12	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.26	Feet		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Dissolved oxygen, Field	2.9	mg/L		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Oxidation Reduction Potential	68.0	mV		10/23/23 11:48	1	-500	10/23/23 11:48	FIELD	Field*
pH, Field Measured	5.99	pH Units		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Specific Conductance, Field Measured	885.0	umhos/cm		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Temperature, Field Measured	58.0	°F		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Temperature, Field Measured	14.4	°C		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Turbidity, Field Measured	7.80	NTU		10/23/23 11:48	1	0.00	10/23/23 11:48	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	290	mg/L		11/02/23 13:24	1	10	11/02/23 13:24	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/02/23 13:24	1	10	11/02/23 13:24	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	600	mg/L		10/25/23 11:20	1	26	10/25/23 14:25	OGS	SM 2540C
Total Metals - PIA									
Boron	28	ug/L		10/26/23 08:40	5	10	11/01/23 11:43	TJJ	EPA 6020A
Calcium	91	mg/L		10/26/23 08:40	5	0.20	10/31/23 14:33	TJJ	EPA 6020A
Magnesium	39	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:33	TJJ	EPA 6020A
Potassium	0.34	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:33	TJJ	EPA 6020A
Sodium	34	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:33	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04861-01
Name: G51S
Matrix: Ground Water - Grab

Sampled: 10/26/23 11:55
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	14	mg/L		11/07/23 03:18	10	10	11/07/23 03:18	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/07/23 03:00	1	0.250	11/07/23 03:00	CRD	EPA 300.0 REV 2.1
Sulfate	60	mg/L		11/07/23 03:18	10	10	11/07/23 03:18	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.95	Feet		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Dissolved oxygen, Field	0.77	mg/L		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Oxidation Reduction Potential	-81.0	mV		10/26/23 11:55	1	-500	10/26/23 11:55	FIELD	Field*
pH, Field Measured	7.12	pH Units		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Specific Conductance, Field Measured	801.0	umhos/cm		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Temperature, Field Measured	58.6	°F		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Temperature, Field Measured	14.8	°C		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Turbidity, Field Measured	18.1	NTU		10/26/23 11:55	1	0.00	10/26/23 11:55	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	310	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	420	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Boron	< 10	ug/L		11/01/23 09:04	5	10	11/07/23 09:23	TJJ	EPA 6020A
Calcium	91	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:44	TJJ	EPA 6020A
Magnesium	39	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:44	TJJ	EPA 6020A
Potassium	0.33	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:44	TJJ	EPA 6020A
Sodium	7.1	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:44	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04861-04
Name: G64L
Matrix: Ground Water - Grab

Sampled: 10/26/23 13:53
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.9	mg/L		11/07/23 04:30	1	1.0	11/07/23 04:30	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/07/23 04:30	1	0.250	11/07/23 04:30	CRD	EPA 300.0 REV 2.1
Sulfate	41	mg/L		11/07/23 04:48	25	25	11/07/23 04:48	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.66	Feet		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Dissolved oxygen, Field	3.4	mg/L		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Oxidation Reduction Potential	14.0	mV		10/26/23 13:53	1	-500	10/26/23 13:53	FIELD	Field*
pH, Field Measured	6.82	pH Units		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Specific Conductance, Field Measured	1000	umhos/cm		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Temperature, Field Measured	16.2	°C		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Temperature, Field Measured	61.1	°F		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Turbidity, Field Measured	9.40	NTU		10/26/23 13:53	1	0.00	10/26/23 13:53	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	480	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	540	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Boron	< 10	ug/L		11/01/23 09:04	5	10	11/07/23 09:31	TJJ	EPA 6020A
Calcium	110	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:52	TJJ	EPA 6020A
Magnesium	61	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:52	TJJ	EPA 6020A
Potassium	0.14	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:52	TJJ	EPA 6020A
Sodium	8.0	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:52	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04861-05
Name: G64S
Matrix: Ground Water - Grab

Sampled: 10/26/23 13:38
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	4.1	mg/L		11/07/23 05:07	1	1.0	11/07/23 05:07	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/07/23 05:07	1	0.250	11/07/23 05:07	CRD	EPA 300.0 REV 2.1
Sulfate	26	mg/L		11/07/23 06:39	5	5.0	11/07/23 06:39	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.6	Feet		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Oxidation Reduction Potential	-44.0	mV		10/26/23 13:38	1	-500	10/26/23 13:38	FIELD	Field*
pH, Field Measured	6.89	pH Units		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Specific Conductance, Field Measured	874.0	umhos/cm		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Temperature, Field Measured	15.6	°C		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Temperature, Field Measured	60.0	°F		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Turbidity, Field Measured	25.5	NTU		10/26/23 13:38	1	0.00	10/26/23 13:38	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	400	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	440	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Boron	13	ug/L		11/01/23 09:04	5	10	11/07/23 09:45	TJJ	EPA 6020A
Calcium	98	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:55	TJJ	EPA 6020A
Magnesium	46	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:55	TJJ	EPA 6020A
Potassium	0.55	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:55	TJJ	EPA 6020A
Sodium	13	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:55	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04861-10
Name: X301
Matrix: Ground Water - Grab

Sampled: 10/26/23 15:30
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	3500	mg/L		11/07/23 06:58	500	500	11/07/23 06:58	CRD	EPA 300.0 REV 2.1
Sulfate	6500	mg/L		11/07/23 14:22	1000	1000	11/07/23 14:22	CRD	EPA 300.0 REV 2.1
Field - PIA									
Dissolved oxygen, Field	6.4	mg/L		10/26/23 15:30	1		10/26/23 15:30	FIELD	Field*
Temperature, Field Measured	65.3	°F		10/26/23 15:30	1		10/26/23 15:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	6.0	mg/L		11/07/23 09:24	1	2.0	11/07/23 09:24	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		11/07/23 09:24	1	2.0	11/07/23 09:24	CPS	SM 2320B 1997*
Total Metals - PIA									
Calcium	610	mg/L		11/01/23 09:04	100	4.0	11/08/23 09:58	TJJ	EPA 6020A
Magnesium	1800	mg/L		11/01/23 09:04	1000	20	11/07/23 10:54	TJJ	EPA 6020A
Potassium	53	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:15	TJJ	EPA 6020A
Sodium	370	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:15	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04997-05
Name: G54L
Matrix: Ground Water - Grab

Sampled: 10/27/23 13:38
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	43	mg/L		11/08/23 03:26	5	5.0	11/08/23 03:26	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/08/23 03:07	1	0.250	11/08/23 03:07	CRD	EPA 300.0 REV 2.1
Sulfate	110	mg/L		11/08/23 03:45	25	25	11/08/23 03:45	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.18	Feet		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Oxidation Reduction Potential	-17.0	mV		10/27/23 13:38	1	-500	10/27/23 13:38	FIELD	Field*
pH, Field Measured	6.53	pH Units		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Specific Conductance, Field Measured	1610	umhos/cm		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Temperature, Field Measured	61.0	°F		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Temperature, Field Measured	18.1	°C		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/27/23 13:38	1	0.00	10/27/23 13:38	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	590	mg/L		11/09/23 14:47	1	10	11/09/23 14:47	LAL2/CP S	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/09/23 14:47	1	10	11/09/23 14:47	LAL2/CP S	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	930	mg/L		10/31/23 11:02	1	26	10/31/23 13:33	OGS	SM 2540C
Total Metals - PIA									
Boron	38	ug/L		11/02/23 08:47	5	10	11/10/23 10:11	TJJ	EPA 6020A
Calcium	190	mg/L		11/02/23 08:47	5	0.20	11/09/23 10:44	TJJ	EPA 6020A
Magnesium	97	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:44	TJJ	EPA 6020A
Potassium	0.36	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:44	TJJ	EPA 6020A
Sodium	12	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:44	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04997-06
Name: G54S
Matrix: Ground Water - Grab

Sampled: 10/27/23 11:54
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	4.5	mg/L		11/08/23 04:04	1	1.0	11/08/23 04:04	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/08/23 04:04	1	0.250	11/08/23 04:04	CRD	EPA 300.0 REV 2.1
Sulfate	33	mg/L		11/08/23 05:00	5	5.0	11/08/23 05:00	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	23.23	Feet		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Dissolved oxygen, Field	1.5	mg/L		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Oxidation Reduction Potential	-46.0	mV		10/27/23 11:54	1	-500	10/27/23 11:54	FIELD	Field*
pH, Field Measured	6.77	pH Units		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Specific Conductance, Field Measured	1030	umhos/cm		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Temperature, Field Measured	15.4	°C		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Temperature, Field Measured	59.8	°F		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Turbidity, Field Measured	15.4	NTU		10/27/23 11:54	1	0.00	10/27/23 11:54	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	410	mg/L		11/09/23 14:47	1	10	11/09/23 14:47	LAL2/CP S	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/09/23 14:47	1	10	11/09/23 14:47	LAL2/CP S	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	550	mg/L		10/31/23 11:02	1	26	10/31/23 13:33	OGS	SM 2540C
Total Metals - PIA									
Boron	48	ug/L		11/02/23 08:47	5	10	11/10/23 10:15	TJJ	EPA 6020A
Calcium	120	mg/L		11/02/23 08:47	5	0.20	11/09/23 10:48	TJJ	EPA 6020A
Magnesium	50	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:48	TJJ	EPA 6020A
Potassium	0.68	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:48	TJJ	EPA 6020A
Sodium	10	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:48	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ05390-01
Name: G60S
Matrix: Ground Water - Grab

Sampled: 10/31/23 10:27
Received: 10/31/23 15:25
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	8.4	mg/L	Q1	11/07/23 21:37	1	1.0	11/07/23 21:37	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/07/23 21:37	1	0.250	11/07/23 21:37	TMS	EPA 300.0 REV 2.1
Sulfate	74	mg/L	Q4	11/07/23 22:31	10	10	11/07/23 22:31	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.84	Feet		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Dissolved oxygen, Field	3.0	mg/L		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Oxidation Reduction Potential	-10.0	mV		10/31/23 10:27	1	-500	10/31/23 10:27	FIELD	Field*
pH, Field Measured	6.64	pH Units		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Specific Conductance, Field Measured	953.0	umhos/cm		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Temperature, Field Measured	9.6	°C		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Temperature, Field Measured	49.2	°F		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/31/23 10:27	1	0.00	10/31/23 10:27	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	660	mg/L		11/01/23 13:44	1	26	11/01/23 15:44	LAL2	SM 2540C
Total Metals - PIA									
Boron	38	ug/L		11/02/23 08:47	5	10	11/10/23 11:07	TJJ	EPA 6020A
Calcium	180	mg/L		11/02/23 08:47	5	0.20	11/09/23 11:50	TJJ	EPA 6020A
Magnesium	77	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:50	TJJ	EPA 6020A
Potassium	4.3	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:50	TJJ	EPA 6020A
Sodium	12	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:50	TJJ	EPA 6020A



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

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B347107 - SW 3015 - EPA 6020A</u>									
Blank (B347107-BLK1)				Prepared: 10/23/23 Analyzed: 10/26/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B347107-BS1)				Prepared: 10/23/23 Analyzed: 10/26/23					
Boron	518	ug/L		555.6		93	80-120		
Calcium	5.61	mg/L		5.556		101	80-120		
Magnesium	5.79	mg/L		5.556		104	80-120		
Potassium	5.80	mg/L		5.556		104	80-120		
Sodium	5.71	mg/L		5.556		103	80-120		
Matrix Spike (B347107-MS1)				Sample: GJ03740-01 Prepared: 10/23/23 Analyzed: 10/26/23					
Boron	618	ug/L		555.6	80.6	97	75-125		
Calcium	206	mg/L		5.556	201	88	75-125		
Magnesium	106	mg/L	Q4	5.556	102	73	75-125		
Potassium	8.20	mg/L		5.556	2.38	105	75-125		
Sodium	49.9	mg/L		5.556	44.9	91	75-125		
Matrix Spike Dup (B347107-MSD1)				Sample: GJ03740-01 Prepared: 10/23/23 Analyzed: 10/26/23					
Boron	636	ug/L		555.6	80.6	100	75-125	3	20
Calcium	207	mg/L		5.556	201	110	75-125	0.6	20
Magnesium	106	mg/L	Q4	5.556	102	72	75-125	0.04	20
Potassium	8.15	mg/L		5.556	2.38	104	75-125	0.7	20
Sodium	50.1	mg/L		5.556	44.9	94	75-125	0.3	20
<u>Batch B347137 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B347137-MS1)				Sample: GJ03740-01 Prepared & Analyzed: 10/20/23					
Fluoride	1.58	mg/L		1.500	0.194	93	80-120		
Matrix Spike Dup (B347137-MSD1)				Sample: GJ03740-01 Prepared & Analyzed: 10/20/23					
Fluoride	1.72	mg/L		1.500	0.194	101	80-120	8	20
<u>Batch B347264 - No Prep - SM 2540C</u>									
Blank (B347264-BLK1)				Prepared & Analyzed: 10/24/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347264-BS1)				Prepared & Analyzed: 10/24/23					
Solids - total dissolved solids (TDS)	947	mg/L		1000		95	84.9-109		
Duplicate (B347264-DUP1)				Sample: GJ03740-03 Prepared & Analyzed: 10/24/23					
Solids - total dissolved solids (TDS)	450	mg/L			430			5	5
<u>Batch B347378 - No Prep - SM 2540C</u>									
Blank (B347378-BLK1)				Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347378-BS1)				Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	940	mg/L		1000		94	84.9-109		
Duplicate (B347378-DUP1)				Sample: GJ03961-01 Prepared & Analyzed: 10/25/23					



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

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B347378-DUP1) Sample: GJ03961-01 Prepared & Analyzed: 10/25/23									
Solids - total dissolved solids (TDS)	465	mg/L			485			4	5
Duplicate (B347378-DUP2) Sample: GJ03961-07 Prepared & Analyzed: 10/25/23									
Solids - total dissolved solids (TDS)	515	mg/L			535			4	5
<u>Batch B347379 - No Prep - SM 2540C</u>									
Blank (B347379-BLK1) Prepared & Analyzed: 10/25/23									
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347379-BS1) Prepared & Analyzed: 10/25/23									
Solids - total dissolved solids (TDS)	947	mg/L		1000		95	84.9-109		
Duplicate (B347379-DUP1) Sample: GJ04131-01 Prepared & Analyzed: 10/25/23									
Solids - total dissolved solids (TDS)	555	mg/L			580			4	5
Duplicate (B347379-DUP2) Sample: GJ04131-08 Prepared & Analyzed: 10/25/23									
Solids - total dissolved solids (TDS)	2690	mg/L			2560			5	5
<u>Batch B347462 - SW 3015 - EPA 6020A</u>									
Blank (B347462-BLK1) Prepared: 10/26/23 Analyzed: 10/31/23									
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B347462-BS1) Prepared: 10/26/23 Analyzed: 10/31/23									
Boron	507	ug/L		555.6		91	80-120		
Calcium	5.48	mg/L		5.556		99	80-120		
Magnesium	5.67	mg/L		5.556		102	80-120		
Potassium	5.60	mg/L		5.556		101	80-120		
Sodium	5.59	mg/L		5.556		101	80-120		
<u>Batch B347621 - No Prep - SM 2540C</u>									
Blank (B347621-BLK1) Prepared & Analyzed: 10/27/23									
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347621-BS1) Prepared & Analyzed: 10/27/23									
Solids - total dissolved solids (TDS)	987	mg/L		1000		99	84.9-109		
Duplicate (B347621-DUP2) Sample: GJ04861-01 Prepared & Analyzed: 10/27/23									
Solids - total dissolved solids (TDS)	425	mg/L			425			0	5
<u>Batch B347849 - No Prep - SM 2540C</u>									
Blank (B347849-BLK1) Prepared & Analyzed: 10/31/23									
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347849-BS1) Prepared & Analyzed: 10/31/23									
Solids - total dissolved solids (TDS)	960	mg/L		1000		96	84.9-109		
<u>Batch B347854 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B347854-MS1) Sample: GJ03740-01 Prepared & Analyzed: 10/31/23									
Sulfate	1.00E9	mg/L	Q4	1.500	478	NR	80-120		
Matrix Spike (B347854-MS2) Sample: GJ04131-02 Prepared & Analyzed: 10/30/23									
Fluoride	1.66	mg/L		1.500	0.202	97	80-120		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B347854-MS2)				Sample: GJ04131-02		Prepared & Analyzed: 10/30/23			
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	41.8	NR	80-120		
Matrix Spike Dup (B347854-MSD1)				Sample: GJ03740-01		Prepared & Analyzed: 10/31/23			
Sulfate	1.00E9	mg/L	Q4	1.500	478	NR	80-120	0	20
Matrix Spike Dup (B347854-MSD2)				Sample: GJ04131-02		Prepared & Analyzed: 10/30/23			
Fluoride	1.69	mg/L		1.500	0.202	99	80-120	2	20
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	41.8	NR	80-120	0	20
<u>Batch B347939 - SW 3015 - EPA 6020A</u>									
Blank (B347939-BLK1)				Prepared: 11/01/23 Analyzed: 11/07/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B347939-BS1)				Prepared: 11/01/23 Analyzed: 11/07/23					
Boron	518	ug/L		555.6		93	80-120		
Calcium	5.67	mg/L		5.556		102	80-120		
Magnesium	5.84	mg/L		5.556		105	80-120		
Potassium	5.69	mg/L		5.556		102	80-120		
Sodium	5.82	mg/L		5.556		105	80-120		
<u>Batch B347965 - No Prep - SM 2320B 1997</u>									
Duplicate (B347965-DUP1)				Sample: GJ03740-01		Prepared & Analyzed: 11/01/23			
Alkalinity - bicarbonate as CaCO3	500	mg/L			475			5	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B347965-DUP2)				Sample: GJ03961-01		Prepared & Analyzed: 11/01/23			
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	312	mg/L			312			0	10
<u>Batch B347985 - No Prep - SM 2540C</u>									
Blank (B347985-BLK1)				Prepared & Analyzed: 11/01/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347985-BS1)				Prepared & Analyzed: 11/01/23					
Solids - total dissolved solids (TDS)	1020	mg/L		1000		102	84.9-109		
Duplicate (B347985-DUP2)				Sample: GJ05390-01		Prepared & Analyzed: 11/01/23			
Solids - total dissolved solids (TDS)	665	mg/L			660			0.8	5
<u>Batch B348049 - SW 3015 - EPA 6020A</u>									
Blank (B348049-BLK1)				Prepared: 11/02/23 Analyzed: 11/10/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B348049-BS1)				Prepared: 11/02/23 Analyzed: 11/10/23					



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

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B348049-BS1)				Prepared: 11/02/23 Analyzed: 11/10/23					
Boron	500	ug/L		555.6		90	80-120		
Calcium	5.60	mg/L		5.556		101	80-120		
Magnesium	5.60	mg/L		5.556		101	80-120		
Potassium	5.47	mg/L		5.556		99	80-120		
Sodium	5.59	mg/L		5.556		101	80-120		
Matrix Spike (B348049-MS1)				Sample: GJ04997-11 Prepared: 11/02/23 Analyzed: 11/10/23					
Boron	5440	ug/L		555.6	4970	85	75-125		
Calcium	233	mg/L	Q4	5.556	229	70	75-125		
Magnesium	93.0	mg/L	Q4	5.556	89.6	60	75-125		
Potassium	9.46	mg/L		5.556	4.16	95	75-125		
Sodium	104	mg/L	Q4	5.556	101	58	75-125		
Matrix Spike Dup (B348049-MSD1)				Sample: GJ04997-11 Prepared: 11/02/23 Analyzed: 11/10/23					
Boron	5330	ug/L	Q4	555.6	4970	66	75-125	2	20
Calcium	235	mg/L		5.556	229	108	75-125	0.9	20
Magnesium	93.8	mg/L		5.556	89.6	76	75-125	0.9	20
Potassium	9.90	mg/L		5.556	4.16	103	75-125	5	20
Sodium	104	mg/L	Q4	5.556	101	58	75-125	0.002	20
<u>Batch B348151 - No Prep - SM 2320B 1997</u>									
Duplicate (B348151-DUP1)				Sample: GJ04131-02 Prepared & Analyzed: 11/02/23					
Alkalinity - bicarbonate as CaCO3	350	mg/L			338			4	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
<u>Batch B348438 - No Prep - SM 2320B 1997</u>									
Duplicate (B348438-DUP5)				Sample: GJ04861-01 Prepared & Analyzed: 11/07/23					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	338	mg/L			312			8	10
<u>Batch B348439 - No Prep - SM 2320B 1997</u>									
Blank (B348439-BLK1)				Prepared & Analyzed: 11/07/23					
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							
Alkalinity - bicarbonate as CaCO3	< 2.0	mg/L							
Duplicate (B348439-DUP2)				Sample: GJ04861-11 Prepared & Analyzed: 11/07/23					
Alkalinity - carbonate as CaCO3	< 2.0	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	1.00	mg/L			1.00			0	10
<u>Batch B348608 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B348608-MS1)				Sample: GJ05390-01 Prepared & Analyzed: 11/07/23					
Chloride	9.3	mg/L	Q1	1.500	8.4	58	80-120		
Fluoride	1.52	mg/L		1.500	0.162	91	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	74.0	NR	80-120		
Matrix Spike Dup (B348608-MSD1)				Sample: GJ05390-01 Prepared & Analyzed: 11/07/23					
Fluoride	1.53	mg/L		1.500	0.162	91	80-120	0.1	20
Chloride	9.1	mg/L	Q1	1.500	8.4	50	80-120	1	20
Sulfate	1.00E9	mg/L	Q4	1.500	74.0	NR	80-120	0	20
<u>Batch B348781 - No Prep - SM 2320B 1997</u>									



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B348781-DUP1)	Sample: GJ04997-01			Prepared & Analyzed: 11/09/23					
Alkalinity - bicarbonate as CaCO ₃	362	mg/L	M		325			11	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B348781-DUP2)	Sample: GJ04997-11			Prepared & Analyzed: 11/09/23					
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	525	mg/L			512			2	10
<u>Batch B349001 - No Prep - SM 2320B 1997</u>									
Duplicate (B349001-DUP1)	Sample: GJ05390-01			Prepared & Analyzed: 11/13/23					
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	500	mg/L			500			0	10



NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

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

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

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

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

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

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

USEPA DMR-QA Program

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

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

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

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

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

Qualifiers

- M Analyte failed to meet the required acceptance criteria for duplicate analysis.
- Q1 Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Certified by: Diane Billings, Project Manager



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: Visira Corp-Duck Creek		Report To: Brian Voelker		Attention: Brian Voelker	
Address: 17751 North Cilco Rd		Copy To: Sam Davies: samantha.davies@visira.com		Company Name: Visira Corp	
Email To: Brian.Voelker@VisiraCorp.com		Purchase Order No.: Daryl Johnson: Robert.Johnson@visira.com		Address: see Section A	
Phone: (217) 753-8911 Fax: 		Project Name: 		Quote Confirmation Project Manager Profile # 	
Requested Due Date/TAT: 10 day		Project Number: 2285		Site Location STATE: IL	
				NPDES GROUND WATER RCRA OTHER DRINKING WATER	
				Page 3 of 10	

Section D Required Client Information		Valid Matrix Codes		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
<p style="text-align: center;">SAMPLE ID (A-Z 0-9 / -) Sample IDs MUST BE UNIQUE</p>		MATRIX CODE		SAMPLE TYPE (G=GRAB C=COMP)		Residual Chlorine (Y/N)	
		DW WASTE WATER WT WASTE WATER P PRODUCT SL SOIL SOLID OL OIL WI WIPE AR AIR OT OTHER TS TISSUE		G53S G54L G54S G55L G55S G56L G56S G57L G57S G58L G58S G59L G59S G60L G60S G61S			
COLLECTED		DATE		TIME			
SAMPLE TEMP AT COLLECTION		DATE		TIME			
# OF CONTAINERS		DATE		TIME			
Preservatives		DATE		TIME			
H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other		DATE		TIME			
Analysis Test		DATE		TIME			
DC-257-203		DATE		TIME			
DC-257-204		DATE		TIME			
DC-257-205		DATE		TIME			
DC-845-201-202		DATE		TIME			
DC-845-203		DATE		TIME			
DC-845-205		DATE		TIME			
DC-CLOSURE-201-202		DATE		TIME			
DC-SUP-000		DATE		TIME			
DC-WPCP-203-206		DATE		TIME			
DC-845-203		DATE		TIME			
DC-845-204		DATE		TIME			
DC-845-205		DATE		TIME			
DC-845-206		DATE		TIME			
DC-845-207		DATE		TIME			
DC-845-208		DATE		TIME			
DC-845-209		DATE		TIME			
DC-845-210		DATE		TIME			
DC-845-211		DATE		TIME			
DC-845-212		DATE		TIME			
DC-845-213		DATE		TIME			
DC-845-214		DATE		TIME			
DC-845-215		DATE		TIME			
DC-845-216		DATE		TIME			
DC-845-217		DATE		TIME			
DC-845-218		DATE		TIME			
DC-845-219		DATE		TIME			
DC-845-220		DATE		TIME			
DC-845-221		DATE		TIME			
DC-845-222		DATE		TIME			
DC-845-223		DATE		TIME			
DC-845-224		DATE		TIME			
DC-845-225		DATE		TIME			
DC-845-226		DATE		TIME			
DC-845-227		DATE		TIME			
DC-845-228		DATE		TIME			
DC-845-229		DATE		TIME			
DC-845-230		DATE		TIME			
DC-845-231		DATE		TIME			
DC-845-232		DATE		TIME			
DC-845-233		DATE		TIME			
DC-845-234		DATE		TIME			
DC-845-235		DATE		TIME			
DC-845-236		DATE		TIME			
DC-845-237		DATE		TIME			
DC-845-238		DATE		TIME			
DC-845-239		DATE		TIME			
DC-845-240		DATE		TIME			
DC-845-241		DATE		TIME			
DC-845-242		DATE		TIME			
DC-845-243		DATE		TIME			
DC-845-244		DATE		TIME			

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 Report To: Brian Voelker			Section C Requested Project Information			Section D Requested Project Information		
Company:	Visira Corp-Duck Creek		Report To:	Brian Voelker		Attention:	Brian Voelker		Company Name:	Visira Corp	
Address:	17751 North Cicco Rd Canton, IL 61520		Copy To:	Sam Davies: samantha.davies@visiracorp.com		Address:	see Section A		NPDES:	GROUND WATER	
Email To:	Brian.Voelker@VisiraCorp.com		Purchase Order No.:	Daryl Johnson: Robert.Johnson@visiracorp.com		Quote Reference:	see Section A		UST:	RCRA	
Phone:	(217) 753-8911		Project Name:	Project Manager:		Project Manager:	Profile #		Site Location:	IL	
Requested Due Date/TAT:	10 day		Project Number:	2285		Profile #			STATE:	IL	
Valid Matrix Codes			Valid Matrix Codes			Valid Matrix Codes			Valid Matrix Codes		
MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTE WATER P PRODUCT P SOIL SOLID S OIL OIL WASTE WASTE OTHER OTHER TISSUE TISSUE			MATRIX CODE DW WW P S OIL WASTE OTHER TISSUE			MATRIX CODE DW WW P S OIL WASTE OTHER TISSUE			MATRIX CODE DW WW P S OIL WASTE OTHER TISSUE		
SAMPLE ID (A-Z, 0-9 / -)			SAMPLE ID (A-Z, 0-9 / -)			SAMPLE ID (A-Z, 0-9 / -)			SAMPLE ID (A-Z, 0-9 / -)		
Sample IDs MUST BE UNIQUE			Sample IDs MUST BE UNIQUE			Sample IDs MUST BE UNIQUE			Sample IDs MUST BE UNIQUE		
ITEM #	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	DATE	TIME	DATE	TIME
1	G07L										
2	G08L										
3	G09L										
4	G12L										
5	G12S										
6	G14L										
7	G15L										
8	G15S										
9	G16L										
10	G50L										
11	G50S										
12	G51L										
13	G51S										
14	G52L										
15	G52S										
16	G53L										
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE			TIME		
DC-23Q4 Rev 0			10/17/23 15:17			10/17/23 15:17			10/17/23 15:17		
SAMPLER NAME AND SIGNATURE			DATE			TIME			DATE		
PRINT Name of SAMPLER: Layan Ross			10/17/23 16:51			10/17/23 16:51			10/17/23 16:51		
SIGNATURE of SAMPLER: [Signature]			DATE SIGNED (MM/DD/YY): 10/17/23			DATE SIGNED (MM/DD/YY): 10/17/23			DATE SIGNED (MM/DD/YY): 10/17/23		
Custody Sealed (Y/N)			Received on (Y/N)			Cooler (Y/N)			Samples Intact (Y/N)		
Y			Y			Y			Y		

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:	Visitra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco Rd	Copy To:	Sam Davies: samantha.davies@visitracorp.com	Company Name:	Visitra Corp
Email To:	Brian.Voelker@VisitraCorp.com	Purchase Order No.:	Daryl Johnson: Robert.Johnson@visitracorp.com	Address:	see Section A
Phone:	(217) 753-8911	Project Name:		Quote Reference:	
Fax:		Project Manager:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #:	

Section D Required Client Information		Valid Matrix Codes		Matrix Codes		Sample Type		Collected		Sample Temp at Collection		# of Containers		Preservatives		Analysis Test		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #		MATRIX	CODE	MATRIX	CODE	MATRIX	CODE	MATRIX	CODE	MATRIX	CODE	MATRIX	CODE	MATRIX	CODE	MATRIX	CODE	MATRIX	CODE	MATRIX	CODE
1	BA01	DRINKING WATER	DW	DRINKING WATER	DW	DRINKING WATER	DW	DRINKING WATER	DW	DRINKING WATER	DW	DRINKING WATER	DW	DRINKING WATER	DW	DRINKING WATER	DW	DRINKING WATER	DW	DRINKING WATER	DW
2	BA02	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
3	BA02L	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
4	BA03	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
5	BA03L	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
6	BA04	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
7	BA05	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
8	BA06	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
9	G02D	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
10	G02L	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
11	G02S	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
12	G03L	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
13	G03S	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
14	G04L	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
15	G06L	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW
16	G06S	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW	WASTE WATER	WW

Section E Additional Comments		Relinquished By / Affiliation		Date		Time		Accepted By / Affiliation		Date		Time		Sample Conditions	
DC-23Q4 Rev 0		12		10/17/23		1651		g h o e r		10/17/23		1451		Received on Ice (Y/N) 4 N Custody Sealed (Y/N) N Samples Intact (Y/N) Y	

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YYYY)	
PRINT Name of SAMPLER: LOC-AR ROSS		10/17/2023	
SIGNATURE OF SAMPLER: [Signature]			

[illegible]

6203961
GS

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:	Visira Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@visiracorp.com Daryl Johnson: Robert.Johnson@visiracorp.com	Company Name:	Visira Corp
Email To:	Brian.Voelker@VisiraCorp.com	Purchase Order No.:		Address:	see Section A
Phone:	(217) 753-8911	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	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test										Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	MATRIX	CODE	DRINKING WATER	DW	WASTE WATER	WW	PRODUCT	P	SOIL/SOLID	SL	OIL	OL	WIPE	WP	AIR	AR	OTHER	OT	TISSUE	TS	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
DC-23Q4 Rev 0			10/20/23	1614		10/20/23	1614	Temp in °C	2.2
								Received on	Y
								Custody Sealed	N
								Cooler (Y/N)	Y
								Samples Intact (Y/N)	Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Harmon Pemberton
SIGNATURE of SAMPLER:	[Signature]
DATE Signed (MM/DD/YY): 10/20/23	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 of 10

Section A Required Client Information: Company: Vistra Corp-Duck Creek Address: 17751 North Cicco Rd Canton, IL 61520 Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Vistra Corp Address: see Section A Quote Reference: Project Manager: Profile #:		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location IL STATE:	
---	--	--	--	--	--	--	--

ITEM #	Valid Matrix Codes MATRIX CODE DW WT WW P SL OL WP AR OT TS	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	COLLECTED DATE TIME	SAMPLE TYPE (G=GRAB C=COMP) (see valid codes to left)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
1		G53S																	
2		G54L																	
3		G54S																	
4		G55L																	
5		G55S																	
6		G56L																	
7		G56S																	
8		G57L																	
9		G57S																	
10		G58L																	
11		G58S																	
12		G59L																	
13		G59S																	
14		G60L																	
15		G60S																	
16		G61S																	

ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION [Signature]		DATE 10/20/23		TIME 1614		ACCEPTED BY / AFFILIATION [Signature]		DATE 10/20/23		TIME 1614		Temp in °C 21.2		Received on X		Custody Sealed N		Cooler (Y/N) N		Samples Intact (Y/N) Y	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Aaron Combs SIGNATURE of SAMPLER: [Signature]																							
DATE Signed (MM/DD/YYYY): 10/20/23																							



CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 7 of 10

Section A Required Client Information: Company: Visira Corp-Duck Creek Address: 17751 North Cilco Rd Canton, IL 61520 Email To: Brian.Voelker@VisiraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Sam Davies: samantha.davies@visiracorp.com Daryl Johnson: Robert.Johnson@visiracorp.com Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Visira Corp Address: see Section A Quote Reference: Project Manager: Profile #: Regulatory Agency NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> OTHER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> Site Location <input type="checkbox"/> IL <input type="checkbox"/> STATE:	
---	--	--	--	---	--

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WATER WW WASTE WATER WWT PRODUCT P SOIL/SOLID SL OIL WL WIFE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE TIME	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		

ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION 	DATE 10/20/23	TIME 1614	ACCEPTED BY / AFFILIATION 	DATE 10/20/23	TIME 1614	Temp in °C 21.2	Received on 7	Custody Sealed Y	Cooler (Y/N) Y	Samples Intact (Y/N) Y
--	--	--	-------------------------	---------------------	--	-------------------------	---------------------	---------------------------	-------------------------	----------------------------	--------------------------	----------------------------------

SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Aaron Penick SIGNATURE of SAMPLER: 		DATE Signed (MM/DD/YY): 10/20/23
--	--	---

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker
Address:	17751 North Clibo Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com
Email To:	Brian.Voelker@VistraCorp.com	Daryl Johnson:	Robert.Johnson@vistracorp.com
Phone:	(217) 753-8911	Purchase Order No.:	
Fax:		Project Name:	
Requested Due Date/TAT:	10 day	Project Number:	2285

Section B Required Project Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

Section C Invoice Information:

REGULATORY AGENCY	NPDES	GROUND WATER	DRINKING WATER	OTHER
UST	RCRA	Site Location	IL	STATE:

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOLIDS SL CABLE WIRE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE	TIME	# OF CONTAINERS	Preservatives										Analysis Test Y/N	Requested Analysis Filtered (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	DC-257-203	DC-257-204		DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on	Custody Sealed	Cooler (Y/N)	Samples Intact (Y/N)
DC-23Q4 Rev 0		10/20/23	1614		10/20/23	1614	2.2				

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: *David Pemberton*
 SIGNATURE of SAMPLER: *[Signature]*
 DATE Signed (MM/DD/YYYY): 10/20/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Vistra Corp-Duck Creek Address: 17751 North Cilco Rd Canton, IL 61520 Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Vistra Corp Address: see Section A Quote Reference Manager Profile # Site Location STATE: IL		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER OTHER UST RCRA DC-257-203	
---	--	--	--	---	--	---	--

ITEM #	Valid Matrix Codes MATRIX CODE WATER WASTE WATER PRODUCT SOIL/SOLID OIL WASTE AIR OTHER TSS	COLLECTED DATE TIME	SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
1	G07L																	
2	G08L																	
3	G09L																	
4	G12L																	
5	G12S																	
6	G14L																	
7	G15L																	
8	G16L																	
9	G50L																	
10	G50S																	
11	G51L																	
12	G51S																	
13	G52L																	
14	G52S																	
15	G53L																	
16																		

ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION 	DATE 10/23/23	TIME 1734	ACCEPTED BY / AFFILIATION 	DATE 10/23/23	TIME 1734	Temp in °C 1.6	Received on Y	Custody Sealed Y	Samples Intact (Y/N) Y
--	--	--	--------------------------------	----------------------------	--------------------------------------	--------------------------------	----------------------------	---------------------------------	--------------------------------	-----------------------------------	---

SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YYYY): 10/23/23
--	--	--

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

DC-257-203

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Vistra Corp-Duck Creek Address: 17751 North Cicco Rd Canton, IL 61520 Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Vistra Corp Address: see Section A Quote Reference: Project Manager: Profile #		Page: 4 of 10	
REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER		IL STATE:		DC-257-203		Project No./ Lab I.D.	
SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		Valid Matrix Codes MATRIX CODE DW WASTE WATER WW WASTE WATER P PRODUCT SL SOIL/SOLID OL OIL WP WPE AR AIR OT OTHER TS TISSUE		MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP) DATE TIME COLLECTED SAMPLE TEMP AT COLLECTION # OF CONTAINERS Preservatives H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ O ₂ Methanol Other		Requested Analysis Filtered (Y/N) DC-257-203 DC-257-204 DC-257-205 DC-811-204 DC-845-201-202 DC-845-203 DC-845-205 DC-CLOSURE-201-202 DC-SUP-000 DC-WPCP-203-206 Residual Chlorine (Y/N)	
ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION DATE 10/23/23 TIME 1739		ACCEPTED BY / AFFILIATION DATE 10/23/23 TIME 1734		SAMPLE CONDITIONS Received on Ice (Y/N) Custody Sealed (Y/N) Cooler (Y/N) Samples Intact (Y/N)	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:		DATE Signed 10/23/23 (MM/DD/YYYY)					

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: 6 of 10	
Company: Vistra Corp-Duck Creek		Report To: Brian Voelker		Attention: Brian Voelker			
Address: 17751 North Cicco Rd		Copy To: Sam Davies: samantha.davies@vistracorp.com		Company Name: Vistra Corp			
Canton, IL 61520		Daryl Johnson: Robert.Johnson@vistracorp.com		Address: see Section A			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Quote Reference			
Phone: (217) 753-8911		Project Name:		Project Manager			
Requested Due Date/TAT: 10 day		Project Number: 2285		Profile #:			
Valid Matrix Codes		Matrix Code (see vint codes to left)		Sample Type (G=GRAB C=COMP)		COLLECTED	
<p>SAMPLE ID (A-Z, 0-9 / . -)</p> <p>Sample IDs MUST BE UNIQUE</p>		<p>DRINKING WATER WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSUE</p>		<p>OW WW WP SL OL WP AR OT TS</p>		<p>DATE</p>	
ITEM #		DATE		TIME		TIME	
1		10/23/23		1049			
2		10/23/23		1130			
3		10/23/23		1530			
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME	
DC-23Q4 Rev 0		10/23/23		1730			
ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
10/23/23 1734		10/23/23 1734		10/23/23 1734		Temp in °C	
1.4		Y		Y		Y	
Custody Sealed (Y/N)		Cooler (Y/N)		Samples Intact (Y/N)			
Y		Y		Y			
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		DATE Signed		(MM/DD/YY)	
10/23/23		10/23/23		10/23/23		10/23/23	
10/23/23		10/23/23		10/23/23		10/23/23	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Visira Corp-Duck Creek Address: 17751 North Cicco Rd Canton, IL 61520 Email To: Brian.Voelker@VisiraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Sam Davies: samantha.davies@visiracorp.com Daryl Johnson: Robert.Johnson@visiracorp.com Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Visira Corp Address: see Section A Quote Reference: Project Manager: Profile #		REGULATORY AGENCY NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <input type="checkbox"/> Site Location: IL STATE: 6304131		Page: 10 of 10	
Section D Required Client Information SAMPLE ID (A-Z, 0-9 / . -) Sample IDs MUST BE UNIQUE		Valid Matrix Codes MATRIX CODE DW DRINKING WATER WT WASTE WATER WW WASTE WATER SD SOLID IL IL CL CL WP WP AR AR OT OT TS TS		MATRIX CODE (see yield codes to left) SAMPLE TYPE (G=GRAB C=COMP) COLLECTED DATE TIME SAMPLE TEMP AT COLLECTION		# OF CONTAINERS Preservatives H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other		Analysis Test Y/N	
XTPW02 Field Blank EB-3 10/23/23 0606		VT 6 10/23/23 1545		11 X X		DC-257-203 DC-257-204 DC-257-205 DC-811-204 DC-845-201-202 DC-845-203 DC-845-205 DC-CLOSURE-201-202 DC-SUP-000 DC-WPCP-203-206		Residual Chlorine (Y/N) Project No./ Lab I.D.	
ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION DATE TIME 10/23/23 1739		ACCEPTED BY / AFFILIATION DATE TIME 10/23/23 1734		SAMPLE CONDITIONS Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)		Temp in °C 1.6 Y N Y	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:		DATE SIGNED (MM/DD/YY): 10/23/23		DATE SIGNED (MM/DD/YY): 10/23/23		DATE SIGNED (MM/DD/YY): 10/23/23		DATE SIGNED (MM/DD/YY): 10/23/23	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Vistra Corp-Duck Creek Address: 17751 North Clico Rd Canton, IL 61520 Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Vistra Corp Address: see Section A Quote Reference: Project Manager: Profile #		Page: 4 of 10	
REGULATORY AGENCY NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <input type="checkbox"/>		Site Location: IL STATE: 6304821 5-AB3					
Valid Matrix Codes MATRIX CODE DW DRINKING WATER WT WATER PW WASTE WATER P PRODUCT S SOLID OIL WFE WASTE FLEET AIR OTHER OT TS TISSUE		Matrix Code (see valid codes to left) WT 6 10/26/23 153' WT 6 10/26/23 1435 WT 6 10/26/23 1353 WT 6 10/26/23 1338		Sample Type (G=GRAB C=COMP) WT 6 10/26/23 153' WT 6 10/26/23 1435 WT 6 10/26/23 1353 WT 6 10/26/23 1338		COLLECTED DATE TIME 10/26/23 153' 10/26/23 1435 10/26/23 1353 10/26/23 1338	
Section D Required Client Information SAMPLE ID (A-Z, 0-9 / .) Sample IDs MUST BE UNIQUE		MATRIX CODE (see valid codes to left) WT 6 10/26/23 153' WT 6 10/26/23 1435 WT 6 10/26/23 1353 WT 6 10/26/23 1338		SAMPLE TYPE (G=GRAB C=COMP) WT 6 10/26/23 153' WT 6 10/26/23 1435 WT 6 10/26/23 1353 WT 6 10/26/23 1338		SAMPLE TEMP AT COLLECTION DATE TIME 10/26/23 153' 10/26/23 1435 10/26/23 1353 10/26/23 1338	
# OF CONTAINERS 5 2 3 3 2 1 1 1 5 2 3 3 5 2 3 3		PRESERVATIVES Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other		Analysis Test Y/N DC-257-203 DC-257-204 DC-257-205 DC-811-204 DC-845-201-202 DC-845-203 DC-845-205 DC-CLOSURE-201-202 DC-SUP-000 DC-WPCP-203-206		Residual Chlorine (Y/N) Project No./ Lab I.D.	
ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION DATE 10/26/23 1645		ACCEPTED BY / AFFILIATION DATE 10/27/23 715		SAMPLE CONDITIONS Received on ice (Y/N) Custody Sealed (Y/N) Cooler (Y/N) Samples Intact (Y/N)	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Logan Ross SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YY): 10/26/23							

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: <u>Vistra Corp-Duck Creek</u> Address: <u>17751 North Cicco Rd</u> Canton, IL 61520 Email To: <u>Brian.Voelker@VistraCorp.com</u> Phone: <u>(217) 753-8911</u> Fax: Requested Due Date/TAT: <u>10 day</u>		Section B Required Project Information: Report To: <u>Brian Voelker</u> Copy To: <u>Sam Davies: samantha.davies@vistracorp.com</u> Address: <u>Daryl Johnson: Robert.Johnson@vistracorp.com</u> Purchase Order No.: Project Name: Project Number: <u>2285</u>		Section C Invoice Information: Attention: <u>Brian Voelker</u> Company Name: <u>Vistra Corp</u> Address: <u>see Section A</u> Quote Reference: Project Manager: Profile #		Page: <u>5</u> of <u>10</u>			
REGULATORY AGENCY NPDES <u>GROUND WATER</u> <u>DRINKING WATER</u> <u>OTHER</u> UST <u>RCRA</u> Site Location <u>IL</u> STATE: <u>61520</u>		Project No./ Lab I.D.		Residual Chlorine (Y/N)		Temp in °C <u>22</u>			
Requested Analysis Filtered (Y/N)		Preservatives H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> HCl <input type="checkbox"/> NaOH <input type="checkbox"/> Na ₂ S ₂ O ₃ <input type="checkbox"/> Methanol <input type="checkbox"/> Other <input type="checkbox"/>		Analysis Test DC-257-203 <input type="checkbox"/> DC-257-204 <input type="checkbox"/> DC-845-203 <input type="checkbox"/> DC-845-201-202 <input type="checkbox"/> DC-845-205 <input type="checkbox"/> DC-CLOSURE-201-202 <input type="checkbox"/> DC-SUP-000 <input type="checkbox"/> DC-WPCP-203-206 <input type="checkbox"/>		Received on <u>10/27/23</u> <u>915</u>		Custody Sealed <u>Y</u>	
SAMPLE TEMP AT COLLECTION		# OF CONTAINERS <u>11</u>		DATE <u>10/26/23</u> TIME <u>1645</u>		ACCEPTED BY / AFFILIATION <u>gracy</u>			
COLLECTED DATE <u>10/26/23</u> TIME <u>1204</u>		SAMPLE TYPE (G=GRAB C=COMP) <u>WT G</u>		DATE <u>10/26/23</u> TIME <u>1045</u>		DATE SIGNED <u>10/26/23</u>			
Valid Matrix Codes MATRIX CODE DW DRINKING WATER WT WASTE WATER P PRODUCT SL SOIL/SOLID OL OIL WP WASTE AR AIR TS TISSUE		MATRIX CODE (see valid codes to left) <u>WT G</u>		DATE <u>10/26/23</u> TIME <u>1045</u>		SIGNATURE OF SAMPLER: <u>gracy</u>			
Section 0 Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		L103 OM01 OM04S OM05S OM07 OM08 OM09 OM10 OM12 OM15 OM16 OM17 OM21 OM22D OM22S OM23D		DATE <u>10/26/23</u> TIME <u>1045</u>		SIGNATURE OF SAMPLER: <u>gracy</u>			
ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION <u>gracy</u>		DATE <u>10/26/23</u> TIME <u>1645</u>		SIGNATURE OF SAMPLER: <u>gracy</u>			
SAMPLES Intact (Y/N) <u>Y</u>		Cooler (Y/N) <u>Y</u>		Received on <u>10/27/23</u> <u>915</u>		Temp in °C <u>22</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:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Ciko Rd Canton, IL 61520	Copy To:	samantha.davies@vistracorp.com	Company Name:	Vistra Corp
Email To:	Brian.Voelker@VistraCorp.com	Daryl Johnson:	Robert.Johnson@vistracorp.com	Address:	see Section A
Phone:	(217) 753-8911	Purchase Order No.:		Quote Reference:	
Fax:		Project Name:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #	

Page: 6 of 10

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location

STATE:

IL

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information		Valid Matrix Codes													MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	MATRIX	CODE	DRINKING WATER	DW	WATER	WT	WASTE WATER	WW	PRODUCT	P	SOLID	SL	OIL	OL	WIPE			WP	AIR			OT	OTHER	IS	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH														Na ₂ S ₂ O ₃	Methanol	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
SAMPLE ID (A-Z, 0-9 / -)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Sample IDs MUST BE UNIQUE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on	Custody Sealed	Cooler (Y/N)	Samples Intact (Y/N)	
DC-23Q4 Rev 0		<i>[Signature]</i>	10/26/23	1645	<i>[Signature]</i>	10/27/23	715	2.0	Y	N	N	Y	
SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)		SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)		SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)		SAMPLER NAME AND SIGNATURE	
<i>[Signature]</i>		10/26/23		<i>[Signature]</i>		10/26/23		<i>[Signature]</i>		10/26/23		<i>[Signature]</i>	
PRINT Name of SAMPLER:		PRINT Name of SAMPLER:		PRINT Name of SAMPLER:		PRINT Name of SAMPLER:		PRINT Name of SAMPLER:		PRINT Name of SAMPLER:		PRINT Name of SAMPLER:	
SIGNATURE of SAMPLER:		SIGNATURE of SAMPLER:		SIGNATURE of SAMPLER:		SIGNATURE of SAMPLER:		SIGNATURE of SAMPLER:		SIGNATURE of SAMPLER:		SIGNATURE of SAMPLER:	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

Company: Vistra Corp-Duck Creek
Address: 17751 North Cicco Rd
Canton, IL 61520
Email To: Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911 Fax:
Requested Due Date/TAT: 10 day

Section B Required Project Information:

Report To: Brian Voelker
Copy To: Sam Davies: samantha.davies@vistracorp.com
Address: see Section A
Quote Reference:
Project Manager:
Project #:
Project Name:
Project Number: 2285

Section C Invoice Information:

Attention: Brian Voelker
Company Name: Vistra Corp
Address: see Section A
State: IL

Section D Required Client Information		Valid Matrix Codes		COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)		MATRIX CODE (see valid codes to left)		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Analysis Test		Requested Analysis Filtered (Y/N)		Project No./Lab I.D.	
ITEM #	Required Client Information	MATRIX CODE	Valid Matrix Codes	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
1	P57S																				
2	P60																				
3	P61																				
4	P62																				
5	P63																				
6	P64																				
7	R10L																				
8	R11L																				
9	R13L																				
10	R61L																				
11	R72S																				
12	T43L																				
13	T44L																				
14	T45L																				
15	T46L																				
16	X301																				

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
DC-23Q4 Rev 0		<i>[Signature]</i>		10/26/23		15:30		<i>[Signature]</i>		10/27/23		7:15		Temp in °C: 2.0	

SAMPLER NAME AND SIGNATURE		DATE SIGNED		TIME	
<i>[Signature]</i>		10/26/23		15:30	

PRINT Name of SAMPLER:		DATE SIGNED		TIME	
<i>[Signature]</i>		10/26/23		15:30	

SIGNATURE of SAMPLER:		DATE SIGNED		TIME	
<i>[Signature]</i>		10/26/23		15:30	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 10 of 10

Section A Required Client Information:

Company: **Visira Corp-Duck Creek**
Address: **17751 North Clibo Rd**
Canton, IL 61520
Email To: **Brian.Voelker@VisiraCorp.com**
Phone: **(217) 753-8911** Fax:
Requested Due Date/TAT: **10 day**

Section B Required Project Information:

Report To: **Brian Voelker**
Copy To: **Sam Davies: samantha.davies@visiracorp.com**
Daryl Johnson: Robert.Johnson@visiracorp.com
Purchase Order No.:
Project Name:
Project Number: **2285**

Section C Invoice Information:

Attention: **Brian Voelker**
Company Name: **Visira Corp**
Address: **see Section A**
Quote Reference:
Project Manager:
Profile #:

REGULATORY AGENCY
NPODES: **GROUND WATER** **DRINKING WATER**
UST: **RCRA** **OTHER**
Site Location: **IL**
STATE: **650118261**
3473

ITEM #	Section D Required Client Information		Section E Valid Matrix Codes		Section F Matrix Code		Section G COLLECTED		Section H SAMPLE TEMP AT COLLECTION		Section I PRESERVATIVES		Section J Analysis Test		Section K Requested Analysis Filtered (Y/N)		Section L Project No./ Lab I.D.	
	SAMPLE ID (A-Z, 0-9 / -)		Valid Matrix Codes DW: DRINKING WATER WW: WASTE WATER PW: PRODUCT SL: SOIL/SOLID OL: OIL AR: AIR OT: OTHER TS: TISSUE		MATRIX CODE (see valid codes to left)		DATE TIME		SAMPLE TEMP AT COLLECTION		PRESERVATIVES Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other		Analysis Test		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
1	XTPW02				WT		10/12/23 1525											
2	Field Blank				WT		10/12/23 1458											
3	EQUIPMENT				WT		10/12/23 1435											
4	EQUIPMENT				WT		10/12/23 1525											
5	EQUIPMENT				WT													
6	EQUIPMENT				WT													
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		

ADDITIONAL COMMENTS: **DC-23Q4 Rev 0**

RELINQUISHED BY / AFFILIATION: **10/26/23 1645**

DATE: **10/27/23 715**

TIME: **2.0**

Temp in °C: **Y**

Recovered on: **Y**

Custody: **Y**

Sailed: **Y**

Cooler (Y/N): **Y**

Samples (Y/N): **Y**

SAMPLER NAME AND SIGNATURE: **Baron Fomleedon**

PRINT Name of SAMPLER: **Baron Fomleedon**

SIGNATURE of SAMPLER: **Baron Fomleedon**

DATE Signed (MM/DD/YYYY): **10/26/23**

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Visira Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cicco Rd Canton, IL 61520	Copy To:	samantha.davies@visiracorp.com	Company Name:	Visira Corp
Email To:	Brian.Voelker@VisiraCorp.com	Daryl Johnson: Robert.Johnson@visiracorp.com	Address:	see Section A	
Phone:	(217) 753-8911	Purchase Order No.:		Quote Reference	
Fax:		Project Name:		Project Manager	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #	

REGULATORY AGENCY			
NPOES	GROUND WATER	DRINKING WATER	
UST	RCRA	OTHER	
Site Location	IL	STATE:	

ITEM #	Section D Required Client Information	Valid Matrix Codes	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test Y/N	Requested Analysis Filtered (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		G07L																									
2		G08L																									
3		G09L																									
4		G12L		WT 6	10/27/23	1700		5	X	X	X																
5		G12S		WT 6	10/27/23	1221		1	X																		
6		G14L																									
7		G15L		WT 6	10/27/23	1040		5	X	X	X																
8		G15S		WT 6	10/27/23	1103		1	X																		
9		G16L		WT 6	10/27/23	1032		5	X	X	X																
10		G50L																									
11		G50S																									
12		G51L																									
13		G51S																									
14		G52L																									
15		G52S																									
16		G53L																									

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
DC-23Q4 Rev 0		<i>[Signature]</i>	10/27/23	1649	<i>[Signature]</i>	10/27/23	1649	Received on	Temp in °C
								Y	8.0
								Custody Sealed	
								Y	
								Cooler (Y/N)	
								Y	
								Samples	
								Intact (Y/N)	
								Y	

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: *Norman Rembert*
SIGNATURE of SAMPLER: *[Signature]*
DATE Signed (MM/DD/YYYY): 10/27/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 3 of 10	
Company: Visira Corp-Duck Creek		Report To: Brian Voelker		Attention: Brian Voelker			
Address: 17751 North Cicco Rd		Copy To: Sam Davies; samantha.davies@visiracorp.com		Company Name: Visira Corp			
Canton, IL 61520		Daryl Johnson; Robert.Johnson@visiracorp.com		Address: see Section A			
Email To: Brian.Voelker@VisiraCorp.com		Purchase Order No.:		Quote Reference			
Phone: (217) 753-8911		Project Name:		Project Manager			
Requested Due Date/TAI: 10 day		Project Number: 2285		Profile #			
Regulatory Agency		NPDES		GROUND WATER		DRINKING WATER	
UST		RCRA		OTHER			
Site Location		STATE: IL					
Requested Analysis Filtered (Y/N)							
Analysis Test		Preservatives		DATE		TIME	
Unpreserved		H ₂ SO ₄		DC-257-203			
HNO ₃		HCl		DC-257-204			
NaOH		Na ₂ S ₂ O ₃		DC-845-203			
Methanol		Other		DC-845-205			
				DC-811-204			
				DC-257-205			
				DC-845-201-202			
				DC-SUP-000			
				DC-CLOSURE-201-202			
				DC-WPCP-203-206			
				Residual Chlorine (Y/N)			
				Project No./ Lab I.D.			
Valid Matrix Codes		COLLECTED		DATE		TIME	
MATRIX CODE		DATE		TIME			
DW: DRINKING WATER		WT: 6		10/27/23		1338	
W: WASTE WATER		WT: 6		10/27/23		1154	
P: PRODUCT							
S: SOLID							
O: OIL							
M: MINE							
A: AIR							
D: DUST							
T: TISSUE							
SAMPLE ID (A-Z, 0-9 / -)		SAMPLE TYPE (G=GRAB C=COMP)		DATE		TIME	
Sample IDs MUST BE UNIQUE		(see valid codes to left)		DATE		TIME	
G53S		WT 6		10/27/23		1402	
G54L		WT 6		10/27/23		1431	
G54S		WT 6		10/27/23		1512	
G55L							
G55S							
G56L							
G56S							
G57L							
G57S							
G58L							
G58S							
G59L							
G59S							
G60L							
G60S							
G61S							
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME	
DC-23Q4 Rev 0		10/27/23		1644			
SAMPLER NAME AND SIGNATURE		DATE SIGNED		MODIFY			
PRINT Name of SAMPLER:		10/27/23		1649			
SIGNATURE of SAMPLER:		10/27/23		1649			
Temp in °C		Received on		Custody Sealed		Cooler (Y/N)	
8.0		Y		Y		Y	
Samples Inlet (Y/N)		7		7		7	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Vistra Corp-Duck Creek Address: 17751 North Cicco Rd Canton, IL 61520 Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Vistra Corp Address: see Section A Quote Reference: Project Manager: Profile #		Page: 1 of 10	
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 WW Wastewater P Product P Solid S Oil O Air A Other OT Tissue TS		MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP) COLLECTED DATE TIME SAMPLE TEMP AT COLLECTION # OF CONTAINERS Preservatives H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other Analysis Test Y/N		Requested Analysis Filtered (Y/N) Residual Chlorine (Y/N) Project No./ Lab I.D.	
Items 1-16 BA01 BA02 BA02L BA03 BA03L BA04 BA05 BA06 G02D G02L G02S G03L G03S G04L G06L G06S		Wt 6 10/27/23 1424 Wt 6 10/27/23 1457 Wt 6 10/27/23 1310		DATE 10/27/23 1644 DATE 10/27/23 1644 DATE 10/27/23 1644		TIME 1644 TIME 1644 TIME 1644	
ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION DATE 10/27/23 1644		ACCEPTED BY / AFFILIATION DATE 10/27/23 1644		SAMPLE CONDITIONS Received on (Y/N) Y Custody Sealed (Y/N) Y Samples Intact (Y/N) Y	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <i>Hanson Remington</i> SIGNATURE of SAMPLER: <i>Hanson Remington</i>		DATE Signed (MM/DD/YYYY): 10/27/23		Temp in °C 8.0		Residual Chlorine (Y/N)	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Vistra Corp-Duck Creek Address: 17751 North Cilco Rd Canton, IL 61520 Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Vistra Corp Address: see Section A Quota Reference: Project Manager: Profile #:		Page: 6 of 10	
Section D Required Client Information Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOLIDWASTE SW AIR WP OTHER OT TISSUE TS SAMPLE ID (A-Z, 0-9 / .) Sample IDs MUST BE UNIQUE		COLLECTED DATE TIME SAMPLE TYPE (G=GRAB C=COMP) MATRIX CODE (see valid codes to left) SAMPLE TEMP AT COLLECTION # OF CONTAINERS Preservatives Unpreserved H ₂ O ₂ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other		Requested Analysis Filtered (Y/N) DC-257-203 DC-257-204 DC-257-205 DC-845-203 DC-845-201-202 DC-845-205 DC-CLOSURE-201-202 DC-SUP-000 DC-WPCP-203-206 Residual Chlorine (Y/N)		Project No./ Lab I.D.	
ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION DATE TIME 10/27/23 16:44		ACCEPTED BY / AFFILIATION DATE TIME 10/27/23 16:47		SAMPLE CONDITIONS Received on Ice (Y/N) Custody Sealed (Y/N) Cooler (Y/N) Samples Intact (Y/N)	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY): 10/27/23		Temp in °C: 8.0		Y	

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:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cicco Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com	Company Name:	Vistra Corp
Email To:	Brian.Voelker@VistraCorp.com	Daryl Johnson: Robert.Johnson@vistracorp.com	Address:	see Section A	
Phone:	(217) 753-8911	Purchase Order No.:		Quota Reference:	
Fax:		Project Name:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #	

Section D Required Client Information		Valid Matrix Codes		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	Sample ID (A-Z, 0-9 / -)	Matrix Code (See valid codes to left)	Sample Type (G=GRAB C=COMP)	COLLECTED	DATE	TIME	Project No./ Lab I.D.
1	OR19	DRINKING WATER					
2	OR20	WASTE WATER					
3	P011	PRODUCT					
4	P01L	SOLID					
5	P01S	WIRE					
6	P02S	AR					
7	P04S	OTHER					
8	P05D	TISSUE					
9	P05L						
10	P05S						
11	P36D						
12	P36L						
13	P36S						
14	P37D						
15	P37L						
16	P38L						

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<i>[Signature]</i>	10/27/23	1644	<i>[Signature]</i>	6/27/23	1644	Temp in °C: 8.0 Received on: Y Custody Sealed: Y Cooler (Y/N): Y Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	<i>[Signature]</i>
SIGNATURE of SAMPLER:	<i>[Signature]</i>
DATE Signed (MM/DD/YYYY):	10/27/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: <u>Visira Corp-Duck Creek</u> Address: <u>17751 North Cicco Rd</u> Canton, IL 61520 Email To: <u>Brian.Voelker@VisiraCorp.com</u> Phone: <u>(217) 753-8911</u> Fax: Requested Due Date/TAT: <u>10 day</u>		Section B Required Project Information: Report To: <u>Brian Voelker</u> Copy To: <u>Sam Davies: samantha.davies@visiracorp.com</u> Daryl Johnson: <u>Robert.Johnson@visiracorp.com</u> Purchase Order No.: Project Name: Project Number: <u>2285</u>		Section C Invoice Information: Attention: <u>Brian Voelker</u> Company Name: <u>Visira Corp</u> Address: <u>see Section A</u> Quote Reference: Project Manager: Profile #: REGULATORY AGENCY NPDES <u>GROUND WATER</u> DRINKING WATER UST <u>RCRA</u> OTHER Site Location <u>IL</u> STATE:		Page: <u>5</u> of <u>10</u>
Section D Required Client Information Valid Matrix Codes DRINKING WATER DW WASTE WATER WW PRODUCT P SOLID S OIL OL WPE WPE AIR AR OTHER OT TISSUE TS SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE		Requested Analysis Filtered (Y/N) Analysis Test Preservatives HCl HNO ₃ H ₂ SO ₄ Unpreserved # OF CONTAINERS SAMPLE TEMP AT COLLECTION SAMPLE TYPE (G=GRAB C=COMP) MATRIX CODE (see valid codes to left) DATE TIME COLLECTED		Residual Chlorine (Y/N) Project No./ Lab I.D.		
1	L103					
2	OM01					
3	OM04S					
4	OM05S					
5	OM07					
6	OM08					
7	OM09					
8	OM10					
9	OM12					
10	OM15					
11	OM16					
12	OM17					
13	OM21					
14	OM22D					
15	OM22S					
16	OM23D					
ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION DATE TIME	ACCEPTED BY / AFFILIATION DATE TIME	SAMPLE CONDITIONS Received on Custody Sealed Cooler (Y/N) Temp in °C	Samples Intact (Y/N)	
SIGNATURE OF SAMPLER: PRINT Name of SAMPLER: SIGNATURE OF SAMPLER:		DATE Signed (MM/DD/YYYY): 10/27/23				

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker
Address:	17751 North Cicero Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:	
Phone:	(217) 753-8911	Project Name:	
Fax:		Project Number:	2285
Requested Due Date/TAT:	10 day		

Section B Required Project Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Guide Reference	
Project Manager	
Profile #	

Section C Invoice Information:

REGULATORY AGENCY	
NPDES	GROUND WATER
UST	RCRA
Site Location	OTHER
STATE:	IL

Section D Required Client Information:

Valid Matrix Codes	
MATRIX CODE	
DRINKING WATER DW	
WASTE WATER WW	
PRODUCT P	
SOIL/SOLID SL	
OIL OIL	
AIR AIR	
OTHER OTHER	
TISSUE TS	

ITEM #	SAMPLE ID (A-Z, 0-9 / .)	Valid Matrix Codes	MATRIX CODE (see vird codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED	DATE	TIME	# OF CONTAINERS	Preservatives	Analysis Test	Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
1		P57S																				
2		P60																				
3		P61																				
4		P62																				
5		P63																				
6		P64																				
7		R10L																				
8		R11L																				
9		R13L																				
10		R61L																				
11		R72S																				
12		T43L																				
13		T44L																				
14		T45L																				
15		T46L																				
16		X301																				

ADDITIONAL COMMENTS	DC-23Q4 Rev 0	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on	Custody Sealed	Cooler (Y/N)	Samples Intact (Y/N)
			10/27/23	1649		10/27/23	1649	8.0		Y	Y	Y
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <i>Adam Remington</i> SIGNATURE of SAMPLER: <i>Adam Remington</i> DATE Signed (MM/DD/YYYY): 10/27/23												

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

Section C
Invoice Information:[illegible]

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS												
							Temp in °C	Received on	Custom Sealed	Cooler (Y/N)									
DC-23Q4 Rev 0	<i>[Signature]</i>	10/27/23	10:04	<i>[Signature]</i>	10/27/23	10:27	8.0	7	7	7	7								
<table border="1"> <thead> <tr> <th colspan="2">SAMPLER NAME AND SIGNATURE</th> </tr> </thead> <tbody> <tr> <td>PRINT Name of SAMPLER:</td> <td><i>Adam Plonk</i></td> </tr> <tr> <td>SIGNATURE of SAMPLER:</td> <td><i>[Signature]</i></td> </tr> <tr> <td colspan="2">DATE Signed (MM/DD/YYYY): 10/27/23</td> </tr> </tbody> </table>												SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:	<i>Adam Plonk</i>	SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YYYY): 10/27/23	
SAMPLER NAME AND SIGNATURE																			
PRINT Name of SAMPLER:	<i>Adam Plonk</i>																		
SIGNATURE of SAMPLER:	<i>[Signature]</i>																		
DATE Signed (MM/DD/YYYY): 10/27/23																			

Section A
Required Client Information:

Company: **Visira Corp-Duck Creek**
Address: **17751 North Cicco Rd**
Canton, IL 61520
Email To: **Brian.Voelker@VisiraCorp.com**
Phone: **(217) 753-8911** Fax:
Requested Due Date/TAT: **10 day**

Section B
Required Project Information:

Report To: **Brian Voelker**
Copy To: **Sam Davies: samantha.davies@visiracorp.com**
Daryl Johnson: Robert.Johnson@visiracorp.com
Purchase Order No.:
Project Name:
Project Number: **2285**

Section C
Invoice Information:

Attention: **Brian Voelker**
Company Name: **Visira Corp**
Address: **see Section A**
Quote Reference:
Project Manager:
Profile #:

REGULATORY AGENCY
NPDES **GROUND WATER** **DRINKING WATER**
UST **RCRA** **OTHER**

Site Location **IL**
STATE:

ITEM #	Valid Matrix Codes MATRIX CODE DW WT WW P SL OL WP AP OT TS SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	COLLECTED DATE TIME	SAMPLE TYPE (S=GRAB C=COMP) (see valid codes to left)	MATRIX CODE (see valid codes to left)	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ O ₃ Methanol Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
1	G62L																		
2	G63L																		
3	G63S																		
4	G64L																		
5	G64S																		
6	G65L																		
7	G65S																		
8	G66L																		
9	G66S																		
10	G67L																		
11	G67S																		
12	G70L																		
13	G71L																		
14	G71S																		
15	G72L																		
16	G73L																		

ADDITIONAL COMMENTS
DC-23Q4 Rev 0

RELINQUISHED BY / AFFILIATION: *[Signature]* DATE: **10/31/23** TIME: **1525**

ACCEPTED BY / AFFILIATION: *[Signature]* DATE: **10/31/23** TIME: **1525**

SAMPLER NAME AND SIGNATURE:
PRINT Name of SAMPLER: **Harin Kimball**
SIGNATURE of SAMPLER: *[Signature]* DATE Signed (MM/DD/YY): **10/31/23**

Temp in °C: **6.0** Received on: **Y** Custody Sealed (Y/N): **Y** Samples In tact (Y/N): **Y**

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Visira Corp-Duck Creek Address: 17751 North Cicco Rd City: Carleton, IL 61520 Email To: Brian.Voelker@VisiraCorp.com Phone: (217) 753-8911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Sam Davies: samantha.davies@visiracorp.com Daryl Johnson: Robert.Johnson@visiracorp.com Purchase Order No: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Visira Corp Address: see Section A Quote Reference: Project Manager: Profile #		Page: 10 of 10									
Section D Required Client Information SAMPLE ID (A-Z, 0-9 / . -) Sample IDs MUST BE UNIQUE		Valid Matrix Codes MATRIX CODE DW WASTE WATER WT WASTE WATER WW WASTE WATER SL SOLIDIFIED OL OIL WPE WASTE PESTICIDE AR AIR OT OTHER TS TISSUE		Requested Analysis Filtered (Y/N) Y/N		Project No./ Lab I.D.									
ITEM #	DATE	TIME	SAMPLE TYPE (G-GRAB C-COMP)	MATRIX CODE (see valid codes to left)	COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives HCl HNO ₃ H ₂ SO ₄ Unpreserved	Analysis Test Y/N	DATE	TIME	Temp in °C	Received on	Custody Sealed (Y/N)	Intact (Y/N)
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
ADDITIONAL COMMENTS DC-23Q4 Rev 0															
RELINQUISHED BY / AFFILIATION DATE TIME ACCEPTED BY / AFFILIATION DATE TIME															
SAMPLE NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:															

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
BA01	DC-BA01	205	BAB	10/16/23	1435	16.25		BG
BA01C	DC-BA01!C	205	BAB		1439	16.07		
BA01L	DC-BA01!L	205	BAB		1437	17.15		
BA02	DC-BA02	205	BAB		1423	13.03	U:6/19/23 GKJ	
BA02L	DC-BA02!L	205	BAB		1425		Top of Pump	
BA03	DC-BA03	205	BAB		1324	11.06		
BA03L	DC-BA03!L	205	BAB		1320	10.85		
BA04	DC-BA04	205	BAB		1442	7.75		
BA05	DC-BA05#	205	BAB		1506	26.60		
BA06	DC-BA06	205	BAB		1500	24.70		
G02L	DC-G02!L	204	LF		1454	16.20		
G02S	DC-G02#S	204	LF		1449	14.23	Transducer N/A	
G02D	DC-G02&D	204	LF		1452	25.09	alternate name P02D	
G03L	DC-G03!L	204	LF		1503	13.72		
G03S	DC-G03#S	204	LF		1500	13.55		
G04L	DC-G04!L	204	LF		1350	15.40		
G04S	DC-G04#S	204	LF		1353	21.43		
G06L	DC-G06!L	204	LF		1105	23.03		
G06S	DC-G06#S	204	LF		1103	23.34		
G07L	DC-G07!L	204	LF		1110	21.41	Top of Pump	
G08L	DC-G08!L	204	LF		1113	21.20	Top of Pump	
G09L	DC-G09!L	204	LF		1121	21.37	Top of Pump	
G09S	DC-G09#S	204	LF		1118	22.33		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G12L	DC-G12!L	204	LF	10/16/23	1146	24.50		BG
G12S	DC-G12#S	204	LF		1149	25.70		
G14L	DC-G14!L	204	LF		1159	26.14		
G15L	DC-G15!L	204	LF		1225	32.95	Top of Pump	
G15S	DC-G15#S	204	LF		1227	34.44		
G16L	DC-G16!L	204	LF		1230	32.45		
G50L	DC-G50!L	203	GMF		1129	17.42	Top of Pump	
G50S	DC-G50#S	203	GMF		1131	18.80		
G51L	DC-G51!L	203	GMF		1146	18.68	Top of Pump	
G51S	DC-G51#S	203	GMF		1144	19.81		
G52L	DC-G52!L	203	GMF		1148	28.30		
G52S	DC-G52#S	203	GMF		1151	32.04		
G53L	DC-G53!L	203	GMF		1119	15.81		
G53S	DC-G53#S	203	GMF		1121	18.73		
G54L	DC-G54!L	203	GMF		1158	21.89		
G54S	DC-G54#S	203	GMF		1154	28.00		
G55L	DC-G55!L	203	GMF		1209	19.62		
G55S	DC-G55#S	203	GMF		1213	19.51		
G56L	DC-G56!L	203	GMF		1014	20.10		
G56S	DC-G56#S	203	GMF		1016	20.77		
G57L	DC-G57!L	203	GMF		1018	25.02		
G57S	DC-G57#S	203	GMF		1020	24.83		
G58L	DC-G58!L	203	GMF		1029	28.95		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G58S	DC-G58#S	203	GMF	10/16/23	1030	29.05		BG
G59L	DC-G59!L	203	GMF		1034	29.09		
G59S	DC-G59#S	203	GMF		1033	34.12		
G60L	DC-G60!L	203	GMF		1038	18.65		
G60S	DC-G60#S	203	GMF		1041	26.67		
G61S	DC-G61#S	203	GMF		1046	23.11		
G62L	DC-G62!L	203	GMF		1048	23.35		
G63L	DC-G63!L	203	GMF		1105	25.19		
G63S	DC-G63#S	203	GMF		1107	26.05		
G64L	DC-G64!L	203	GMF		1111	24.58		
G64S	DC-G64#S	203	GMF		1112	25.50		
G65L	DC-G65!L	203	GMF		0950	19.30		
G65S	DC-G65#S	203	GMF		0932	19.61		
G66L	DC-G66!L	203	GMF		0943	14.49		
G66S	DC-G66#S	203	GMF		0945	15.46		
G67L	DC-G67!L	203	GMF		1001	13.00		
G67S	DC-G67#S	203	GMF		1003	14.12		
G68L	DC-G68!L	203	GMF		0904	12.23		
G68S	DC-G68#S	203	GMF		0906	13.18		
G69L	DC-G69!L	203	GMF		0909	16.00		
G69S	DC-G69#S	203	GMF		0910	18.23		
G70L	DC-G70!L	203	GMF		0914	20.13		
G71L	DC-G71!L	203	GMF		0920	26.11		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G71S	DC-G71#S	203	GMF	10/16/23	0918	26.72		B6
G72L	DC-G72!L	203	GMF		0923	21.40		
G73L	DC-G73!L	203	GMF		0927	27.20		
L103	DC-L103	204	LF		1217	1.91		
OM01	DC-OM01	201-202	AP1/2		1306	13.01		
OM04S	DC-OM04#S	201-202	AP1/2		1057	21.19	OR04S	
OM05S	DC-OM05#S	201-202	AP1/2		1257	22.21		
OM07	DC-OM07	201-202	AP1/2		1245	13.11		
OM08	DC-OM08	201-202	AP1/2		1134	14.96		
OM09	DC-OM09	201-202	AP1/2		1529	4.24		
OM10	DC-OM10	201-202	AP1/2		0918	13.49		
OM12	DC-OM12	201-202	AP1/2		1148	15.89		
OM15	DC-OM15	201-202	AP1/2		0909	22.88		
OM16	DC-OM16	201-202	AP1/2		1044	26.94		
OM17	DC-OM17	201-202	AP1/2		1023	15.26		
OM21	DC-OM21	201-202	AP1/2		1059	12.66		
OM22S	DC-OM22#S	201-202	AP1/2		1333	20.53		
OM22D	DC-OM22&D	201-202	AP1/2		1335	20.08		
OM23S	DC-OM23#S	201-202	AP1/2		1403	42.47		
OM23D	DC-OM23&D	201-202	AP1/2		1407	38.95		
OM24D	DC-OM24&D	201-202	AP1/2		—	—	Not Accessible	
OM25S	DC-OM25#S	201-202	AP1/2		1436	16.20		
OM25D	DC-OM25&D	201-202	AP1/2	—	1440	58.26		—

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
OR02	DC-OR02	201-202	AP1/2	10/16/23	1254	7.81		BG
OR03S	DC-OR03#S	201-202	AP1/2		1242	45.92		
OR03D	DC-OR03&D	201-202	AP1/2		1118	45.45		
OR04D	DC-OR04&D	201-202	AP1/2		1055	23.01		
OR05D	DC-OR05&D	201-202	AP1/2		1255	22.98		
OR06A	DC-OR06!A	201-202	AP1/2		1235	15.14		
OR11	DC-OR11	201-202	AP1/2		1218	32.28		
OR13S	DC-OR13#S	201-202	AP1/2		1303	14.72		
OR13D	DC-OR13&D	201-202	AP1/2		1305	14.62		
OR14S	DC-OR14#S	201-202	AP1/2		1113	8.97		
OR14D	DC-OR14&D	201-202	AP1/2		1110	11.79		
OR18	DC-OR18	201-202	AP1/2		1012	19.65		
OR19	DC-OR19	201-202	AP1/2		1142	25.80		
OR20	DC-OR20	201-202	AP1/2		1205	22.30		
P01L	DC-P01!L	204	LF		1439	17.11		
P01S	DC-P01#S	204	LF		1437	16.73		
P01I	DC-P01\$I	204	LF		1441	16.53		
P02S	DC-P02#S	204	LF		1455	18.57		
P04S	DC-P04#S	204	LF		1353	21.43		
P05L	DC-P05!L	204	LF		1318	7.13		
P05S	DC-P05#S	204	LF		1326	7.16		
P05D	DC-P05&D	204	LF		1339	7.10		
P36L	DC-P36!L	204	LF	—	1041	12.64		—

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P36S	DC-P36#S	204	LF	10/16/23	1043	12.82		BG
P36D	DC-P36&D	204	LF		1040	13.00		
P37L	DC-P37!L	204	LF		1129	14.60	Top of Pump	
P37D	DC-P37&D	204	LF		1131	17.33		
P38L	DC-P38!L	204	LF		1212	19.48		
P38S	DC-P38#S	204	LF		1206	21.00		
P39L	DC-P39!L	204	LF		1248	10.68		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P36S	DC-P36#S	204	LF					
P36D	DC-P36&D	204	LF					
P37L	DC-P37!L	204	LF					
P37D	DC-P37&D	204	LF					
P38L	DC-P38!L	204	LF					
P38S	DC-P38#S	204	LF					
P39L	DC-P39!L	204	LF					
P39S	DC-P39#S	204	LF	10/18/23	1227	10.99		BG
P39D	DC-P39&D	204	LF		1225	16.57		
P40L	DC-P40!L	204	LF		1210	18.53		
P40S	DC-P40#S	204	LF		1211	17.28		
P41L	DC-P41!L	204	LF		1300	11.68		
P41S	DC-P41#S	204	LF		1302	14.00		
P41D	DC-P41&D	204	LF		1304	35.98		
P42L	DC-P42!L	204	LF		1255	10.30	Well Damaged	
P42S	DC-P42#S	204	LF		1132	10.82		
P42I1	DC-P42\$I1	204	LF		1129	11.19	alternate name P42I	
P42I2	DC-P42\$I2	204	LF		1127	33.79		
P42D	DC-P42&D	204	LF		1125	38.59	MW 52L BG 10/18/23	
P52	DC-P52	203	GMF		1353	18.02	MW 52L	
P57L	DC-P57!L	203	GMF		1103	17.77		
P57S	DC-P57#S	203	GMF		1105	17.39		
P60	DC-P60	203	GMF		1113	26.54		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P61	DC-P61	203	GMF	10/18/23	1121	17.06		BG
P62	DC-P62	203	GMF	1	1117	14.31		
P63	DC-P63	203	GMF	1	1119	16.42		
P64	DC-P64	203	GMF	—	1123	18.23		
R10L	DC-R10!L	204	LF	10/16/23	1427	23.90		
R11L	DC-R11!L	204	LF	10/16/23	1140	23.63		
R13L	DC-R13!L	204	LF	10/18/23	1232	24.36		
R61L	DC-R61!L	203	GMF		1323	22.21		
R72S	DC-R72#S	203	GMF	1	1318	24.70		
T43L	DC-T43!L	204	LF		1244	8.70		
T44L	DC-T44!L	204	LF		1246	12.64		
T45L	DC-T45!L	204	LF		1247	10.62		
T46L	DC-T46!L	204	LF		1250	7.47		
X301	DC-X301-leachate	203	GMF		1313	40.5		
XTPW02	DC-XTPW02-pore	203	GMF	—	1348	6.85	Dry	

BA02L

10/18/23-1330-11.31

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs recorded on SAR-4 must be measured immediately prior to downloading the transducer data at that location.
Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
BA01	DC-BA01	205	BAB	10/16/23	1435	16.25	21615533	Y	—	—	—	NOT connected	BG
BA02	DC-BA02	205	BAB		1423	13.03	21615636	Y	—	—	—	NOT connected	
BA02L	DC-BA02IL	205	BAB		1425	PUMP	21615682	Y	φφ.φ1	Y	H		
BA03	DC-BA03	205	BAB		1324	11.06	21615637	Y	—	—	—	NOT connected	
BA03L	DC-BA03IL	205	BAB		1326	10.85	21615687	Y	508.37	Y	M	Below Pump	
BA04	DC-BA04	205	BAB		1442	7.75	21615631	Y	—	—	—	NOT connected	
BA05	DC-BA05#	205	BAB		1506	26.60	21615540	Y	572.70	Y	M		
BA06	DC-BA06	205	BAB		1508	24.70	21615525	Y	571.06	Y	M		
G02S	DC-G02#S	204	LF		1449	14.23	21615554	Y	—	—	—	NOT connected	
G50S	DC-G50#S	203	GMF		1131	18.80	21615535	Y	604.91	Y	M		
G51S	DC-G51#S	203	GMF		1144	19.81	21615691	Y	599.96	Y	M		
G54L	DC-G54IL	203	GMF		1158	21.89	21615690	Y	600.98	Y	M		
G54S	DC-G54#S	203	GMF		1154	28.00	21615684	Y	599.83	Y	M		
G57S	DC-G57#S	203	GMF		1422	24.86	21615683	Y	597.83	Y	M		
G60L	DC-G60IL	203	GMF		1438	18.65	21615678	Y	596.69	Y	M		
G60S	DC-G60#S	203	GMF		1441	26.67	21615677	Y	586.02	Y	H		
G64L	DC-G64IL	203	GMF		1110	24.58	21615688	Y	622.77	Y	M		
G64S	DC-G64#S	203	GMF		1112	25.50	21615632	Y	599.02	Y	M		

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs recorded on SAR-4 must be measured immediately prior to downloading the transducer data at that location.
Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Data Logger Serial No.	Does Data Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L/R)	Comments	Initials
OM01	DC-OM01	201-AP1/202-2	AP1/2	10/16/23	1306	13.01	21615685	Y	582.15	Y	M		BG
OM04S	DC-OM04#S	201-AP1/202-2	AP1/2		1057	21.19	21615542	Y	586.09	Y	H		
OM07	DC-OM07	201-AP1/202-2	AP1/2		1245	13.11	21615541	Y		Y			
OM12	DC-OM12	201-AP1/202-2	AP1/2		1148	15.89	21615527	Y	577.30	Y	H		
OM16	DC-OM16	201-AP1/202-2	AP1/2		1044	26.94	21615539	Y		Y	/	Not Connected	
OM17	DC-OM17	201-AP1/202-2	AP1/2		1023	15.26	21615693	Y		Y	/	Not Connected	
OM21	DC-OM21	201-AP1/202-2	AP1/2		1059	12.66	21615593	Y	9.42	Y	H		
OM22D	DC-OM22&D	201-AP1/202-2	AP1/2		13.35	20.08	21615592	Y	578.88	Y	M		
OM23D	DC-OM23&D	201-AP1/202-2	AP1/2		1407	38.95	21615591	Y		Y	/	Not Connected	
OM24D	DC-OM24&D	201-AP1/202-2	AP1/2				21615522				/	Inaccessible	
OM25S	DC-OM25#S	201-AP1/202-2	AP1/2		1436	58.20	21615681	Y		Y	/	Not Connected	
OR02	DC-OR02	201-AP1/202-2	AP1/2		1254	7.81	21615679	Y	543.42	Y	M		
OR03D	DC-OR03&D	201-AP1/202-2	AP1/2		1244	45.45	21615577	Y	582.75	Y	M		
OR04D	DC-OR04&D	201-AP1/202-2	AP1/2		1055	21.87	21615570	Y	585.76	Y	H		
OR06A	DC-OR06/A	201-AP1/202-2	AP1/2		1235	15.14	21615692	Y		Y	/	Not Connected	
OR11	DC-OR11	201-AP1/202-2	AP1/2		1218	32.28	21615686	Y	564.14	Y	M		
OR13S	DC-OR13#S	201-AP1/202-2	AP1/2		1303	14.72	21615676	Y		Y	/	Not Connected	
OR13D	DC-OR13&D	201-AP1/202-2	AP1/2		1305	14.62	21564135				/	Wings	

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs recorded on SAR-4 must be measured immediately prior to downloading the transducer data at that location.
Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L/R)		
OR14D	DC-OR14&D	201-AP1/ 202 2		10/16/23	1110	11.79	21615611	Y	587.01	Y	H		AG
OR19	DC-OR19	201-AP1/ 202 2		T	1142	25.80	21615634	Y	571.80	Y	M		
OR20	DC-OR20	201-AP1/ 202 2		T	1205	22.30	21615610	Y	565.16	Y	M		T

Notes:
Batt = battery
bmp = below measuring point
ft = feet
H = high
L = low
M = medium
R = replaced

WELL/SAMPLE POINT **G02S**

Purge Method: Bladder

Date: 10/19/23 Start Time: 1321 Finish/Sample Time: 1430

Well Depth (Bottom) From MP: ft Min. Purge Volume: 1.5 Gal L

Depth to Water From MP: 14.21 ft Total Purge Volume: 1.8 Gal L

Water Column Length: ft Max Drawdown: ft

Well Water Volume: Gal / L Total Drawdown: 0.92 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1344	15.13	100	6.72	889	13.70	-97	0.71	0.2
2	1345	15.14	100	6.70	880	13.70	-97	0.55	0.0
3	1346	15.13	100	6.71	873	13.70	-97	0.50	0.1
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250mL) 1000mL
1	Rad 2.5L

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P, 250mL) 1000mL

Final DTW: 15.13 ft

Comments

Sampler's Signature: Joseph R Red

Duck Creek

WELL/SAMPLE POINT G50S

Purge Method: Delicaled Bladder

Date: 10/23/23 Start Time: 1459 Finish/Sample Time: 1609

Well Depth (Bottom) From MP: 37.30 ft Min. Purge Volume: 1500 Gal / L

Depth to Water From MP: 18.94 ft Total Purge Volume: 1800 Gal / L

Water Column Length: 18.36 ft Max Drawdown: — ft

Well Water Volume: 11.12 Gal / L Total Drawdown: 4.55 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1522	21.45	100	7.07	753	17.72	-50	63	28.3
2	1523	21.53	100	7.06	752	17.70	-48	52	25.1
3	1524	21.48	100	7.08	747	17.76	-47	48	21.8
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenois (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	4NO3 P, 2.5L
1	General P, 1000mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 23.49 ft

Comments

Sampler's Signature: [Signature]

Ba

Duck Creek

WELL/SAMPLE POINT G51S

Purge Method: BLADDER

Date: 10/26/23 Start Time: 1032 Finish/Sample Time: 1155

Well Depth (Bottom) From MP: 32.17 ft Min. Purge Volume: 1000 Gal / L
Depth to Water From MP: 19.95 ft Total Purge Volume: 1400 Gal / L
Water Column Length: 12.22 ft Max Drawdown: ft
Well Water Volume: 7.40 Gal / L Total Drawdown: 7.65 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1103	24.5	100	7.18	803	17.17	-85	2.80	19.4
2	1104	24.34	100	7.15	801	14.98	-82	1.76	17.6
3	1105	24.61	100	7.12	805	14.80	-82	1.77	18.5
4	1106	24.55	100	7.12	801	14.76	-81	1.77	18.1
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	1103 2.5L
1	General 1000mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 27.6 ft

Comments

Sampler's Signature: [Signature]

BG

Duck Creek

WELL/SAMPLE POINT G54L

Purge Method: Portable

Date: 10/27/23 Start Time: 1204 Finish/Sample Time: 1338

Well Depth (Bottom) From MP: 40.30 ft Min. Purge Volume: 1000 Gal / L

Depth to Water From MP: 21.18 ft Total Purge Volume: 1300 Gal / L

Water Column Length: 19.12 ft Max Drawdown: — ft

Well Water Volume: 11.58 Gal / L Total Drawdown: 4.83 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1215	22.90	100	6.58	1610	18.30	-17	1.86	0.0
2	1216	23.01	100	6.57	1610	18.22	-18	1.84	0.0
3	1217	23.14	100	6.53	1610	18.14	-17	1.81	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	HNO3 2.5L
1	General 1000mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 26.41 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G54S

Purge Method: Portable ~~BLADDER~~

Date: 10/27/23 Start Time: 1024 Finish/Sample Time: 1154

Well Depth (Bottom) From MP: 51.26 ft Min. Purge Volume: 1000 Gal / L

Depth to Water From MP: 23.27 ft Total Purge Volume: 1500 Gal / L

Water Column Length: 28.03 ft Max Drawdown: - ft

Well Water Volume: 16.97 Gal / L Total Drawdown: 3.07 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1044	23.92	100	6.78	1030	15.44	-50	2.37	18.7
2	1045	24.93	100	6.78	1030	15.49	-48	1.36	15.3
3	1046	24.97	100	6.77	1030	15.31	-47	1.30	15.2
4	1047	24.21	100	6.77	1030	15.46	-47	1.67	16.1
5	1048	24.51	100	6.77	1030	15.43	-46	1.53	15.4
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	HNO3 2.5L
1	General 1000mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 26.30 ft

Comments

Sampler's Signature: _____

Duck Creek

WELL/SAMPLE POINT G57S

Purge Method: BLADDER

Date: 10/20/23 Start Time: 1138 Finish/Sample Time: 1247

Well Depth (Bottom) From MP: 37.40 ft Min. Purge Volume: 1500 Gal / L

Depth to Water From MP: 24.83 ft Total Purge Volume: 2000 Gal / L

Water Column Length: 12.57 ft Max Drawdown: ft

Well Water Volume: 7.61 Gal / L Total Drawdown: 1.45 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1205	25.44	100	6.42	1390	14.94	77	2.03	45.9
2	1206	25.57	100	6.42	1400	15.03	77	2.03	42.5
3	1207	25.57	100	6.41	1400	14.99	78	1.35	40.9
4	1208	25.55	100	6.42	1400	15.00	78	1.26	37.4
5	1209	25.55	100	6.41	1400	14.98	78	9.25	36.2
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Well cap fits securely.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	2.5L HNO3
1	General, 1000 mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 25.88 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G60L

Purge Method: BLADDER

Date: 10/23/23

Start Time: 1005

Finish/Sample Time: 1148

Well Depth (Bottom) From MP: 27.00 ft

Min. Purge Volume: 1500 Gal / L

Depth to Water From MP: 19.26 ft

Total Purge Volume: 1700 Gal / L

Water Column Length: 7.74 ft

Max Drawdown: — ft

Well Water Volume: 4.69 Gal / L

Total Drawdown: 5.28 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1034	22.75	100	5.98	897	14.37	66	2.47	10.2
2	1035	22.86	100	5.97	896	14.37	67	2.72	9.8
3	1036	22.94	100	5.99	888	14.41	68	2.71	8.6
4	1037	23.04	100	5.99	885	14.44	68	2.88	7.8
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	HNO3 P, 2.5L
1	P, 1000 mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 24.54 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT **G60S** **0420** Purge Method: portable BLADDER / submersible
Date: 10/31/23 10/23/23 Start Time: 10:47 Finish/Sample Time: 10:42 10:27
Well Depth (Bottom) From MP: 39.20 ft Min. Purge Volume: — Gal / L
Depth to Water From MP: 25.73 25.84 ft Total Purge Volume: 1000 Gal / L (ML)
Water Column Length: 13.36 ft Max Drawdown: — ft
Well Water Volume: 8.08 Gal / () Total Drawdown: 0.76 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	0935	26.60	100	6.64	949	9.218	-11	3.14	71000
2	0937	26.60	100	6.64	951	9.51	-10	3.10	71000
3	0939	26.60	100	6.64	953	9.55	-10	3.02	71000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Well has weep holes	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250mL) 1000mL
1	Metals (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 26.60 ft

Comments 10/23/23 - BLADDER PUMP DOES NOT WORK

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G64L

Purge Method: Portable

Date: 10/26/23 Start Time: 1220 Finish/Sample Time: 1353

Well Depth (Bottom) From MP: 30.46 ft Min. Purge Volume: 1000 Gal / L

Depth to Water From MP: 24.66 ft Total Purge Volume: 1300 Gal / L

Water Column Length: 5.8 ft Max Drawdown: — ft

Well Water Volume: 3.51 Gal / L Total Drawdown: 2.24 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1238	25.62	100	6.82	1000	16.16	14	3.44	9.4
2	1239	25.65	100	6.82	1000	15.96	4	3.59	10.7
3	1240	25.67	100	6.82	1000	16.16	14	3.44	9.4
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

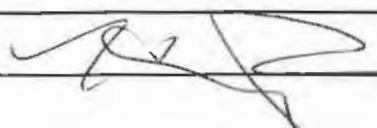
BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	HNO3 2.5L
1	General 1000 mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 26.90 ft

Comments

Sampler's Signature: 

BA

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-257-203
Duck Creek

WELL/SAMPLE POINT G64S

Purge Method: BLADDER

Date: 10/26/23 Start Time: 1205 Finish/Sample Time: 1338

Well Depth (Bottom) From MP: 39.50 ft Min. Purge Volume: 1000 Gal / L

Depth to Water From MP: 25.6 ft Total Purge Volume: 1500 Gal / L

Water Column Length: 13.9 ft Max Drawdown: ft

Well Water Volume: 8.42 Gal / L Total Drawdown: 2.33 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1223	26.03	100	6.93	869	15.77	-44	9.13	35.6
2	1224	26.05	100	6.95	868	15.72	-44	7.00	33.7
3	1225	26.06	100	6.93	870	15.76	-45	1.71	31.7
4	1226	26.08	100	6.91	872	15.69	-45	1.30	25.4
5	1228	26.13	100	6.89	874	15.58	-44	1.19	25.5
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1	HNO3 2.5L
1	General 1000mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 27.93 ft

Comments

Sampler's Signature: [Signature]

BGA

WELL/SAMPLE POINT X301 Pump House

Purge Method: bailler

Date: 10/26/2023 Start Time: 1526 Finish/Sample Time: 1530

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1									
	1528	—	—	6.53	19,200	18.52	141	6.41	19.7
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBa

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250mL)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Ferrous Iron - mg/L

Comments _____

Sampler's Signature: _____

PSN

WELL/SAMPLE POINT **XPTW02**

Purge Method:

Date: 10/26/23 Start Time: 1524 Finish/Sample Time: 1525

Well Depth (Bottom) From MP: 6.99 ft Min. Purge Volume: Gal / L

Depth to Water From MP: 6.99 ft Total Purge Volume: 0 Gal / L

Water Column Length: 0 ft Max Drawdown: ft

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

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1									
2									
3									
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Sample Appearance:

Odor: ☐ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 6.99 ft

Comments dog

Sampler's Signature:

BG1

Multiparameter Meter Field Calibration Checklist

Field Personnel: LR JR				Location: DUCK CREEK					
Weather: 44°-66° Sunny NW 1mph				Environment: GRASS, TREE, BUSHES, GRAVEL					
Multiparameter Water Meter		Make: HORIBA	Model: V-5000	Serial Number: PW 26YJD3					
Water Level Meter		Make: Heron	Model: Digger-T	Serial Number: 3717-T					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.91	s.u.	±0.1 s.u.	P	NA	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.91	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0-25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1750	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV	P			InSitu	3GD927	Jan-24
DO (Zero pt)	0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0950				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25	
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	NA	Geotech	2GF113	Jun-24	
pH 10.00b	9.87	s.u.	±0.15 s.u.	P	NA	Geotech	3GA1134	Jan-25	
SC 1000	1000	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1542				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NA	—	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P	NA	—	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NA	—	MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%	P	NA	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0	mg/L	±0.1 mg/L	P	NA	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NA	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: 	Date: 10/17/23
--	-----------------------

Ben

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Joe Reed</u>			Location: <u>Vistra Duck Creek</u>		
Weather: <u>50-70°F part cloudy wind 9-11 mph</u>			Environment: <u>grassy</u>		
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>V5000</u>	Serial Number: <u>PW2GYJD3</u>	
Water Level Meter		Make: <u>Heron</u>	Model: <u>Series 1A00</u>	Serial Number: <u>19FF211192HB</u>	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	/	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.30</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2.000</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Geotech	3GA1071	Jan-24
ORP	<u>240</u>	mV	±15 mV	<u>P</u>	<u>N</u>		InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.0</u>	%	97-100%	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>940</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.07</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	May-24	
pH 7.00b	<u>7.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>9.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>998.1</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1550</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	/	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>Joseph R Reed</u>	Date: <u>10/18/23</u>
---------------------------------	-----------------------

BG
10/30/23

BG
10/30/23

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Joe Reed</u>				Location: <u>Duck Creek Power - Wistra</u>			
Weather: <u>Rain 55-60°F Wind 9-13 mph</u>				Environment: <u>Grassy</u>			
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>U5000</u>	Serial Number: <u>PW2645D3</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>Series 1100</u>	Serial Number: <u>11FF 2209305ML</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023067-01	3/14/2025
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2020</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Geotech	3GA1071	Jan-24
ORP	<u>240</u>	mV	±15 mV	<u>P</u>	<u>N</u>		InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>98.5</u>	%	97-100%	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>930</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.96</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	May-24	
pH 7.00b	<u>6.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>9.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>995.8</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4209A12	Aug-24 <u>Aug 24</u>	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1320</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023067-01	3/14/2025
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC 1000	<u>1000</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Ricca	4209A12	Aug-24 <u>Aug 24</u>
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24 <u>Aug 24</u>
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>Joe Reed</u>	Date: <u>10/19/23</u>
----------------------------	-----------------------

Aug 24
BC 10/30/23

Aug 24
BC 10/30/23

Aug 24
BC 10/30/23

BC

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Logan Ross</u>				Location: <u>DUCK CREEK</u>					
Weather: <u>Sunny 47°-68° 10mph NW</u>				Environment: <u>GRASS, WOODLAND GRAVEL</u>					
Multiparameter Water Meter		Make: <u>HORIBA</u>	Model: <u>U-5000</u>	Serial Number: <u>PW264JD3</u>					
Water Level Meter		Make: <u>Heron</u>	Model: <u>D-1000</u>	Serial Number: <u>19FF211192HB</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.10</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.06</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	023051-02	2/21/2025
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0</u>	µS/cm	0<25 µS/cm	<u>P</u>			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2014</u>	µS/cm	±5%	<u>P</u>			Geotech	3GF1197	Jun-24
ORP	<u>247</u>	mV	±15 mV	<u>P</u>			InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0</u>	mg/L	±0.1	<u>P</u>			Macron	#000228049	8/26/2025
DO (Saturated)	<u>99</u>	%	97-100%	<u>P</u>			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>0930</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.08</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>7.14</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>9.17</u>	s.u.	±0.15 s.u.	<u>F</u>	<u>CAL 10.00</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>960</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1447</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.92</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	023051-02	2/21/2025
pH 10.00a	<u>9.96</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	022361-01	12/27/2024
SC 1000	<u>1040</u>	µS/cm	±5%	<u>P</u>			Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1 mg/L	<u>P</u>			Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>[Signature]</u>	Date: <u>10-20-23</u>
-------------------------------	-----------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton			Location:	Duck Creek				
Weather:	57° - 64° sunny wind NW 12 mph			Environment:	grass, dirt				
Multiparameter Water Meter	Make:	A7	Model:	600	Serial Number:	762215			
Water Level Meter	Make:	Horan	Model:	D.M.17	Serial Number:	3717-7			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.15	s.u.	±0.1 s.u.	P	YES	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	YES	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.35	s.u.	±0.1 s.u.	P	YES	10.00	MSI	022361-01	12/27/2024
SC Zero (DI)	1.42	µS/cm	0<25 µS/cm	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1079.7	µS/cm	±5%	P	NO	-	Geotech	3GF1197	Jun-24
ORP	245.8	mV	±15 mV	P	NO	-	InSitu	3GD927	Jan-24
DO (Zero pt)	0.10	mg/L	±0.1	P	NO	-	Macron	#000228049	8/26/2025
DO (Saturated)	97.72	%	97-100%	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0941			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	-	Geotech	3GB1049	Feb-25	
pH 7.00b	6.92	s.u.	±0.15 s.u.	P	-	Geotech	2GF113	Jun-24	
pH 10.00b	10.98	s.u.	±0.15 s.u.	P	-	Geotech	3GA1134	Jan-25	
SC 1000	108.1	µS/cm	±5%	P	-	Ricca	4209A12	Aug-24	

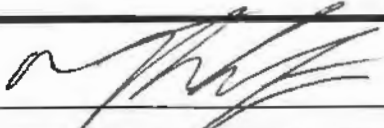
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1445			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	-	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	-	MSI	023051-02	2/21/2025
pH 10.00a	10.98	s.u.	±0.1 s.u.	P	NO	-	MSI	022361-01	12/27/2024
SC 1000	1087.36	µS/cm	±5%	P	NO	-	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	-	Macron	#000228049	8/26/2025
Turbidity (DI)	0.08	NTU	<2 NTU	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	10/20/2023
------------	---	-------	------------

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Remberhan			Location:	Duck Creek				
Weather:	52°-75°P Sunny Wind SE 12 mph			Environment:	grass, woods, farm field				
Multiparameter Water Meter	Make:	AT	Model:	600	Serial Number:	762215			
Water Level Meter	Make:	Heron	Model:	Dipnet	Serial Number:	3717-7			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0.81	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020.1	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	242.8	mV	±15 mV	P			InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.73	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	242 @ 158			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25	
pH 7.00b	7.01	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24	
pH 10.00b	10.03	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25	
SC 1000	1006.6	µS/cm	±5%	P		Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1600			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	998.34	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	10/23/2023
------------	---	-------	------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Logan Ross</u>				Location: <u>DUCK CREEK</u>			
Weather: <u>Sunny 59-74° 13 mph S</u>				Environment: <u>GRASS WOODS, GRAVEL</u>			
Multiparameter Water Meter		Make: <u>HORIBA</u>	Model: <u>V-5000</u>	Serial Number: <u>PW26YJD3</u>			
Water Level Meter		Make: <u>HEBO</u>	Model: <u>1900</u>	Serial Number: <u>19FF2202</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>3.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	-	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.79</u>	s.u.	±0.1 s.u.	<u>F</u>	<u>6.98</u>	<u>Y</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.90</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	-	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NO</u>	-	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1970</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	-	Geotech	3GF1197	Jun-24
ORP	<u>241</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	-	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1	<u>P</u>	<u>NO</u>	-	Macron	#000228049	8/26/2025
DO (Saturated)	<u>100</u>	%	97-100%	<u>P</u>	<u>NO</u>	-	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0850</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.93</u>	s.u.	±0.15 s.u.	<u>P</u>	-	Geotech	3GB1049	Feb-25	
pH 7.00b	<u>7.07</u>	s.u.	±0.15 s.u.	<u>P</u>	-	Geotech	2GF113	Jun-24	
pH 10.00b	<u>10.15</u>	s.u.	±0.15 s.u.	<u>P</u>	-	Geotech	3GA1134	Jan-25	
SC 1000	<u>997</u>	µS/cm	±5%	<u>P</u>	-	Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1616</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.92</u>	s.u.	±0.1 s.u.	<u>P</u>	-	-	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	-	-	MSI	022361-01	12/27/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	-	-	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1 mg/L	<u>P</u>	-	-	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	-	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>Logan Ross</u>	Date: <u>10/23/2023</u>
------------------------------	-------------------------

T

BGN

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Remberton			Location:	Duck creek		
Weather:	67°-77° mostly sunny w/ some SW 12 mph			Environment:	woods, grass, dirt, gravel		
Multiparameter Water Meter	Make:	Horsion	Model:	US000	Serial Number:	PV26Y503	
Water Level Meter	Make:	Heron	Model:	Differ 7	Serial Number:	3717-7 PV26Y503A	
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	No	N/A	MSI
pH 7.00a	7.04	s.u.	±0.1 s.u.	P			MSI
pH 10.00a	10.06	s.u.	±0.1 s.u.	P			MSI
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P			Pace Labs
SC 2000	2000	µS/cm	±5%	P			Geotech
ORP	237	mV	±15 mV	P			InSitu
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron
DO (Saturated)	97.1	%	97-100%	P			Pace Labs
Turbidity (DI)	0.5	NTU	<2 NTU	P			Pace Labs

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)				Time:		0915	
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049
pH 7.00b	6.89	s.u.	±0.15 s.u.	P		Geotech	2GF113
pH 10.00b	10.09	s.u.	±0.15 s.u.	P		Geotech	3GA1134
SC 1000	1010	µS/cm	±5%	P		Ricca	4209A12

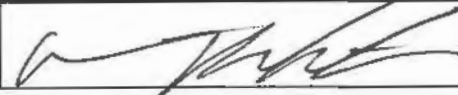
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):				Time:		1513	
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	N/A	MSI
pH 7.00a	7.05	s.u.	±0.1 s.u.	P			MSI
pH 10.00a	10.09	s.u.	±0.1 s.u.	P			MSI
SC 1000	1030	µS/cm	±5%	P			Ricca
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P			Macron
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):				Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer
4.00a		s.u.	±0.1 s.u.				MSI
7.00a		s.u.	±0.1 s.u.				MSI
10.00a		s.u.	±0.1 s.u.				MSI
SC 1000		µS/cm	±5%				Ricca
DO (Zero pt)		mg/L	±0.1 mg/L				Macron
Turbidity (DI)		NTU	<2 NTU				Pace Labs

Comments:

Signature:		Date:	10/24/2023
------------	---	-------	------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Amberlon</u>		Location: <u>Duck Creek</u>	
Weather: <u>62°-72° Cloudy</u> <u>rain w/ a SW breeze</u>		Environment: <u>woods, grass, gravel, dirt</u>	
Multiparameter Water Meter	Make: <u>Hanlon</u>	Model: <u>US000</u>	Serial Number: <u>PV268503</u>
Water Level Meter	Make: <u>Heron</u>	Model: <u>Digport</u>	Serial Number: <u>3717-T</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2010</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Geotech	3GF1197	Jun-24
ORP	<u>231</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	<u>N/A</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.1</u>	%	97-100%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 18°C

ICV (Initial Calibration Verification)					Time: <u>0915</u>	
--	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>6.89</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>10.13</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>1000</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1545</u>	
---	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.04</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1030</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
---	--	--	--	--	-------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>[Signature]</u>	Date: <u>10/25/2023</u>
-------------------------------	-------------------------

BA

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>		Location: <u>Duck Creek</u>	
Weather: <u>64° - 70° cloudy, rain wind S 10mph</u>		Environment: <u>woods, mud, grass</u>	
Multiparameter Water Meter	Make: <u>Fluor: 64</u>	Model: <u>VS000</u>	Serial Number: <u>WUG83C85</u>
Water Level Meter	Make: <u>Hean</u>	Model: <u>Dipart</u>	Serial Number: <u>3717-7</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.96</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0<25 µS/cm	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2030</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Geotech	3GF1197	Jun-24
ORP	<u>234</u>	mV	±15 mV	<u>I</u>	<u>I</u>	<u>I</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.2</u>	%	97-100%	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>0915</u>	
--	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.03</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>6.87</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>9.92</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>1010</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1547</u>	
---	--	--	--	--	-------------------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.03</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.04</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1030</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
---	--	--	--	--	-------	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>[Signature]</u>	Date: <u>10/26/2023</u>
-------------------------------	-------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: Logan Ross				Location: DUCK CREEK					
Weather: 70°/64° CLOUDY/RAIN 9 mph S				Environment: Grass WOODLAND GRAVEL					
Multiparameter Water Meter		Make: HORIBA	Model: V5000	Serial Number: PW26YJD3					
Water Level Meter		Make: HERRON	Model: diaper-T	Serial Number: 11FF2209305ML					

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	—	—	MSI	023067-01	3/14/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.	P	—	—	MSI	023051-02	2/21/2025
pH 10.00a	9.53	s.u.	±0.1 s.u.	F	Y	9.99	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	—	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1999	µS/cm	±5%	P	—	—	Geotech	3GF1197	Jun-24
ORP	236	mV	±15 mV	P	—	—	InSitu	3GD927	Jan-24
DO (Zero pt)	.23	mg/L	±0.1	F	Y	0.0	Macron	#000228049	8/26/2025
DO (Saturated)	98	%	97-100%	P	—	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.2	NTU	<2 NTU	P	—	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 6:08				
--	--	--	--	--	-------------------	--	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	NA	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GA1134	Jan-25
SC 1000	1050	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 6:08				
---	--	--	--	--	-------------------	--	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	—	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.82	s.u.	±0.1 s.u.	P	—	NA	MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	—	NA	MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P	—	NA	Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	—	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	—	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 6:08				
---	--	--	--	--	-------------------	--	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: 	Date: 10/26/23
--	-----------------------

Logan Ross

RG

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Brendan Glennon</u>				Location: <u>Duck Creek PS</u>					
Weather: <u>65° Cloudy 9 Mph NNE</u>				Environment: <u>Grass Field</u>					
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>U-5000</u>	Serial Number: <u>WUG 83C85</u>					
Water Level Meter		Make: <u>Heron</u>	Model: <u>Digger-T</u>	Serial Number: <u>11FF2209 305ML</u>					

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>8</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2040</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Geotech	3GA1071	Jan-24
ORP	<u>233</u>	mV	±15 mV	<u>P</u>	<u>N</u>	<u>N/A</u>	InSitu	264762	Jan-23
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>100</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>1030</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.04</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>7.06</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>10.09</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>1030</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1423</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1020</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.01</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>Brendan Glennon</u>	Date: <u>10/26/23</u>
-----------------------------------	-----------------------

Bcn

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Penabaz			Location:	Duck Creek				
Weather:	68°-71° R. cloudy wind SW 11 mph			Environment:	grass, mud				
Multiparameter Water Meter	Make:	Horiba	Model:	US000	Serial Number:	WUG63685			
Water Level Meter	Make:	Heron	Model:	D-1000	Serial Number:	3717-7			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	231	mV	±15 mV	P			InSitu	3GD927	Jan-24
DO (Zero pt)	0.04	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

236 @ 20°C

ICV (Initial Calibration Verification)					Time:	1930			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25	
pH 7.00b	6.85	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24	
pH 10.00b	9.84	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25	
SC 1000	1000	µS/cm	±5%	P		Ricca	4209A12	Aug-24	


Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1530			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	10/27/2023
------------	---	-------	------------

BCA

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Logan Ross</u>				Location: <u>DUCK CREEK</u>			
Weather: <u>36-69 CLOUDY/RAIN 8m/s</u>				Environment: <u>GRASSLAND, WOODLAND</u>			
Multiparameter Water Meter		Make: <u>HORIBA</u>	Model: <u>L-5000</u>	Serial Number: <u>PW 264JD3</u>			
Water Level Meter		Make: <u>Herron</u>	Model: <u>Dipper-T</u>	Serial Number: <u>11FF2209305ML</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.10</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>1.002</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2080</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>NA</u>	Geotech	3GF1197	Jun-24
ORP	<u>238</u>	mV	±15 mV	<u>P</u>	<u>N</u>	<u>NA</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>NA</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.9</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0918</u>			
--	--	--	--	--	--	-------------------	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.09</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>7.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>10.13</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>979</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1523</u>			
---	--	--	--	--	--	-------------------	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>NA</u>	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>1.7</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
---	--	--	--	--	--	-------	--	--	--

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>[Signature]</u>	Date: <u>10/27/23</u>
-------------------------------	-----------------------

RG

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Joe Reel</u>			Location: <u>Duck Creek Power</u>		
Weather: <u>cloudy/rain</u>			Environment: <u>wet grassy</u>		
Multiparameter Water Meter	Make: <u>Hanba</u>	Model: <u>V5000</u>	Serial Number: <u>Y29 KJ 9HA</u>		
Water Level Meter	Make: <u>Herm</u>	Model: <u>Series 1000</u>	Serial Number: <u>19FF-211192#B</u>		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023067-01	3/14/2025
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2000</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Geotech	3GF1197	Jun-24
ORP	<u>243</u>	mV	±15 mV	<u>P</u>	<u>N</u>		InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.01</u>	mg/L	±0.1	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.0</u>	%	97-100%	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>1020</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.97</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	3GB1049	Feb-25	
pH 7.00b	<u>6.98</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>10.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	3GA1134	Jan-25	
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1530</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023067-01	3/14/2025
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.01</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>Joseph R. Reel</u>	Date: <u>10/27/23</u>
----------------------------------	-----------------------

BS

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>		Location: <u>Duck Creek</u>	
Weather: <u>35°-41° sunny</u> <u>wind NW 11mph</u>		Environment: <u>grass, mud, gravel</u>	
Multiparameter Water Meter	Make: <u>AT</u>	Model: <u>600</u>	Serial Number: <u>606127</u>
Water Level Meter	Make: <u>Hecon</u>	Model: <u>Dipart</u>	Serial Number: <u>3117-7</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.11</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>4.00</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>7.02</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.11</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>10.01</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>12.0</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>no</u>	<u>-</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2000</u>	µS/cm	±5%	<u>P</u>	<u>no</u>	<u>-</u>	Geotech	3GF1197	Jun-24
ORP	<u>235.7</u>	mV	±15 mV	<u>P</u>	<u>no</u>	<u>-</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>P</u>	<u>no</u>	<u>-</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>98.45</u>	%	97-100%	<u>P</u>	<u>no</u>	<u>-</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>no</u>	<u>-</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

235 @ 20°C

ICV (Initial Calibration Verification)					Time: <u>1000</u>	
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer
pH 4.00b	<u>4.02</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech
pH 7.00b	<u>6.96</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>I</u>	Geotech
pH 10.00b	<u>9.03</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech
SC 1000	<u>10.10</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	Ricca

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1500</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>no</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.08</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC 1000	<u>10.12</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>[Signature]</u>	Date: <u>10/30/2023</u>
-------------------------------	-------------------------

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Logan R</u>				Location: <u>DUCK CREEK</u>					
Weather: <u>Sunny 26°-41° 11mph NW</u>				Environment: <u>GRASSLAND, WOODLAND</u>					
Multiparameter Water Meter		Make: <u>HORIBA</u>	Model: <u>V-5000</u>	Serial Number: <u>PW 264 JD3</u>					
Water Level Meter		Make: <u>HERRON</u>	Model: <u>dipper-T</u>	Serial Number: <u>11F12209305ML</u> <u>19FE211192HB</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.89</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>7.99</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.000</u>	µS/cm	0<25 µS/cm	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1770</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Geotech	3GF1197	Jun-24
ORP	<u>239</u>	mV	±15 mV	<u>I</u>	<u>I</u>	<u>I</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.6</u>	%	97-100%	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0900</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.11</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	3GB1049	Feb-25	
pH 7.00b	<u>7.02</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>10.07</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	3GA1134	Jan-25	
SC 1000	<u>967</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1516</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>3.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.96</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1020</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>[Signature]</u>	Date: <u>10/30/23</u>
-------------------------------	-----------------------

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Amberlan			Location:	Duck Creek				
Weather:	32-40° Sunny Wind NW 15mph			Environment:	Grass, mud				
Multiparameter Water Meter	Make:	Hanna	Model:	U 5000	Serial Number:	60583085			
Water Level Meter	Make:	Herm	Model:	Dipper 7	Serial Number:	3717-7			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	230	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

237 @ 10/9/23

ICV (Initial Calibration Verification)						Time:	0910		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25	
pH 7.00b	6.88	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24	
pH 10.00b	10.10	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25	
SC 1000	1030	µS/cm	±5%			Ricca	4209A12	Aug-24	

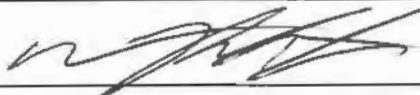
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:	1420		
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	987	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

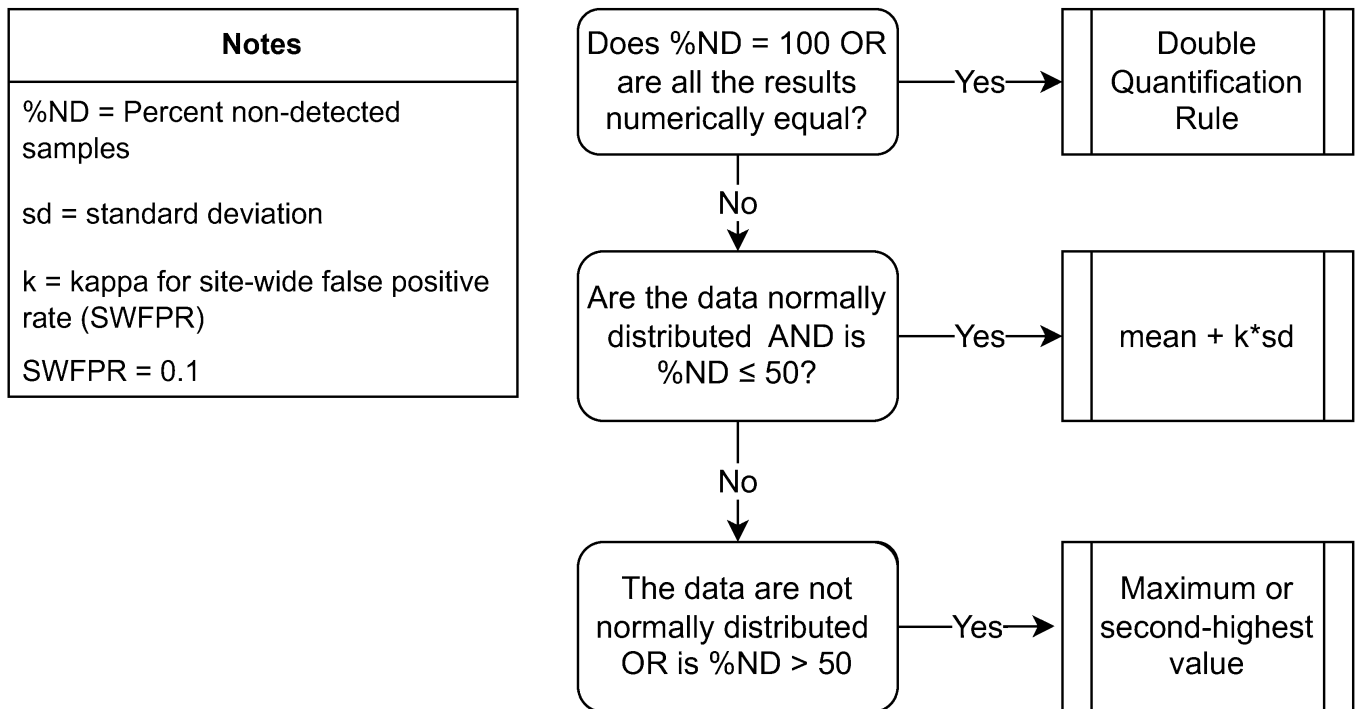
CCV (Continued Calibration Verification):						Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	10/31/2023
------------	---	-------	------------

Multiparameter Meter Field Calibration Checklist									
Field Personnel: Joe Reed				Location: Duck Creek					
Weather: 40-61°F Partly cloudy				Environment: Grassy					
Multiparameter Water Meter		Make: Horiba	Model: U5000	Serial Number: YL9KJ9HA					
Water Level Meter		Make: Heron	Model: Series 1900	Serial Number: 19FF211192HB					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	N		MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC Zero (DI)	0.01	µS/cm	0<25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	N		Geotech	3GF1197	Jun-24
ORP	241	mV	±15 mV	P	N		InSitu	3GD927	Jan-24
DO (Zero pt)	0.01	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	99.1	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.1	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time: 9:45				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25	
pH 7.00b	6.99	s.u.	±0.15 s.u.	P	N	Geotech	2GF113	Jun-24	
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	N	Geotech	3GA1134	Jan-25	
SC 1000	1010	µS/cm	±5%	P	N	Ricca	4209A12	Aug-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: 1400				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	N		MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	N		Ricca	4209A12	Aug-24
DO (Zero pt)	0.02	mg/L	±0.1 mg/L	P	N		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	N		Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Comments:									
Signature: Joseph R Reed				Date: 11/3/23					

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.

APPENDIX C

ALTERNATIVE SOURCE DEMONSTRATIONS

Intended for

Illinois Power Resources Generating, LLC

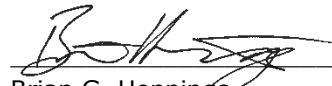
Date

April 4, 2023

**40 C.F.R. § 257.94(E)(2): ALTERNATE
SOURCE DEMONSTRATION
DUCK CREEK POWER PLANT
GYPSUM MANAGEMENT FACILITY POND
CCR UNIT 203**

CERTIFICATIONS

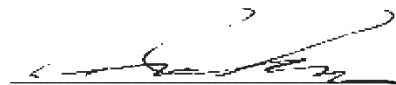
I, Brian G. Hennings, a professional geologist in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.



Brian G. Hennings
Professional Geologist
196.001482
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: April 4, 2023



I, Anne Frances Ackerman, a qualified professional engineer in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.



Anne Frances Ackerman
Qualified Professional Engineer
062-060586
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: April 4, 2023



CONTENTS

1.	Introduction	3
2.	Background	4
2.1	Site Location and Description	4
2.2	Geology and Hydrogeology	4
2.3	Groundwater, GMF Pond and Porewater Monitoring	5
3.	Alternate Source Demonstration: Lines of Evidence	6
3.1	LOE #1: The Ionic Composition of Potential GMF Pond Source Water is Different from the Ionic Composition of Groundwater	6
3.2	LOE #2: Proximity of the GMF Pond to Historical Mining Activity and Related Groundwater Quality Impacts	7
3.3	LOE #3: The GMF Pond Has a Double Geomembrane Liner Designed to Prevent CCR Contact with Groundwater	9
3.4	LOE #4: Boron Concentrations in Compliance Groundwater Monitoring Wells Do Not Exceed Background Limits	9
4.	Conclusions	10
5.	References	11

FIGURES (IN TEXT)

- Figure A Piper Diagram Showing Ionic Composition of Samples of Groundwater and Pond Water Associated with the GMF Pond.
- Figure B Piper Diagram Showing Ionic Composition of Groundwater Downgradient of Reclaimed Surface Coal Mines in High-Sulfur Coal Regions (Modified from USGS).

FIGURES (ATTACHED)

- Figure 1 GMF Pond Potentiometric Surface Map – July 18, 2022
- Figure 2 Coal Mine Coverage Area
- Figure 3 Landfill and Gypsum Management Facilities Potentiometric Surface Map - July 18, 2022

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternate Source Demonstration
bgs	below ground surface
BTU	British Thermal Unit
CCR	coal combustion residuals
CCR Rule	40 C.F.R. § 257 Subpart D
cm/s	centimeters per second
D11	Detection Monitoring Round 11
DCPP	Duck Creek Power Plant
GMF	Gypsum Management Facility
HDPE	high-density polyethylene
IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
LOE	line(s) of evidence
NAVD88	North American Vertical Datum of 1988
NRT/OBG	Natural Resource Technology, an OBG Company
oz/yd ²	ounce per square yard
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SSI	Statistically Significant Increase
TDS	total dissolved solids
USGS	United States Geological Survey

1. INTRODUCTION

Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.94(e)(2) allows the owner or operator of a coal combustion residuals (CCR) unit 90 days from the date of determination of Statistically Significant Increases (SSI) over background for groundwater constituents listed in Appendix III of 40 C.F.R. § 257 to complete a written demonstration that a source other than the CCR unit being monitored caused the SSI(s), or that the SSI(s) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality (Alternate Source Demonstration [ASD]).

This ASD has been prepared on behalf of Illinois Power Resources Generating, LLC by Ramboll Americas Engineering Solutions, Inc. (Ramboll) to provide pertinent information pursuant to 40 C.F.R. § 257.94(e)(2) for the Duck Creek Power Plant (DCPP) Gypsum Management Facility (GMF) Pond located near Canton, Illinois.

The eleventh semiannual detection monitoring samples (Detection Monitoring Round 11 [D11]) were collected from July 19 through July 21, 2022, and analytical data were received on October 6, 2022. In accordance with 40 C.F.R. § 257.93(h)(2), statistical analysis of the data to identify SSIs of 40 C.F.R. § 257 Subpart D (CCR Rule) Appendix III parameters over background concentrations was completed by January 4, 2023, within 90 days of receipt of the analytical data. The statistical determination identified the following SSIs at compliance monitoring wells:

- Calcium at wells G54S, G57S, and G60S
- Total dissolved solids (TDS) at wells G54S, G57S, and G60S

Pursuant to 40 C.F.R. § 257.94(e)(2), the following lines of evidence (LOE) demonstrate that sources other than the GMF Pond were the cause of the SSIs listed above. This ASD was completed by April 4, 2023, within 90 days of determination of the SSIs (January 4, 2023), as required by 40 C.F.R. § 257.94(e)(2).

2. BACKGROUND

2.1 Site Location and Description

The DCPD is located in Fulton County, in central Illinois, approximately 9 miles southeast of the town of Canton. Duck Creek Cooling Pond is located east of the plant and the GMF Pond with agricultural land surrounding the entire property.

2.2 Geology and Hydrogeology

The DCPD geologic and hydrogeologic setting summarized below is obtained from published sources, hydrogeologic investigation data, and boring data collected during site investigations conducted from 2005 to 2021 (Natural Resource Technology, an OBG Company [NRT/OBG], 2017; Ramboll, 2021).

Regionally, the DCPD is positioned on the glacial uplands above the Illinois River in the Ancient Illinois Floodplain of the Till Plains Section of the Central Lowland Province. The undisturbed unlithified materials consist of loess, diamictons, and lacustrine/alluvial deposits. The area is flat to gently rolling uplands that are dissected by deeply incised streams that are tributaries to major river systems.

Several large former surface coal mines are present in the vicinity. Strip mining in the region since the 1930s disrupted the natural stratigraphy down to the Springfield (No. 5) Coal unit. The strip mining activity produced rough topography from soil piles and depressions, often ponded with water. Unlithified materials are present in the excavated strip mine spoils and have been mixed due to the surface mining activities. Mining operations in the area have ceased.

The uppermost bedrock stratum in the area is the Carbondale Formation of the Kewanee Group of the Pennsylvanian System. The Carbondale Formation consists primarily of shaley siltstone and silty shale and includes the Springfield (No. 5) Coal and other coal units. Bedrock occurs within approximately 50 feet of the ground surface in this area.

Quaternary deposits in the Canton area consist mainly of loess, diamictons, and lacustrine/alluvial deposits that were deposited during Illinoian and Wisconsinan glaciations. Four hydrostratigraphic units have been identified at the DCPD based on stratigraphic relationships and common hydrogeologic characteristics, and are summarized as follows (beginning at the ground surface):

- CCR – This unit is composed of gypsum CCR, present within the GMF Pond at a thickness ranging from less than 1 to 22 feet. The thickest areas of gypsum are to the north and west within the GMF Pond and thin toward the south end of the GMF Pond.
- Uppermost Aquifer – At the GMF Pond this unit includes the Peoria/Roxanna Loess, the upper Radnor Till, and shallow sands. These units are hydraulically connected and underlain by a thick till sequence of the Radnor Till. The shallow sands are laterally extensive across the site, vary in thickness from less than 1 to 18 feet, and are generally located at an elevation of 570 to 590 feet North American Vertical Datum of 1988 (NAVD88). The shallow sand is saturated. During construction of the GMF Pond, sand was completely removed everywhere it was encountered (mainly the northeast corner and southwest corner of the pond), putting the base of liner in contact with clay of the lower Radnor Till. Sand outside the GMF Pond footprint remains in place.

- Lower Radnor Till/Lower Confining Unit – Underlying the Uppermost Aquifer, the lower Radnor Till is approximately 42 to 58 feet thick. Previous hydrogeologic studies indicate discontinuous sand lenses observed within the till are not hydraulically connected to the Uppermost Aquifer.
- Bedrock Confining Unit – The bedrock encountered across the site consists of low permeability shaley siltstone, silty shale, and coal beds of the Carbondale Formation, and is estimated to have a thickness of approximately 300 to 400 feet.

Groundwater elevations (referenced to NAVD88) in the Uppermost Aquifer near the GMF Pond are shown on Figure 1. Groundwater elevations were measured on January 25, 2022, prior to a combined sampling event at the DCPD for the three CCR units located there and for multiple monitoring programs required by both federal and state regulatory agencies. Groundwater elevations beneath the GMF Pond ranged from 613 to 586 feet NAVD88.

2.3 Groundwater, GMF Pond and Porewater Monitoring

The CCR Rule groundwater monitoring system for the GMF Pond is shown on Figure 1. Monitoring wells G02S, G50S, and G51S are used to monitor background groundwater quality for the GMF Pond. These wells are located north (G02S), northwest (G50S), and west (G51S) of the GMF Pond. The compliance monitoring wells are G54S, G57S, G60S, and G64S.

GMF Pond source water samples are collected from the GMF Pond at location X301, a riser pipe from the ring drain beneath the pond that samples leachate. The most recent pond water sample was collected from X301 on July 20, 2022. Location XTPW02 is a temporary monitoring well installed in the gypsum within the pond for collection of porewater (Figure 1). XTPW02 was last sampled in June of 2021.

3. ALTERNATE SOURCE DEMONSTRATION: LINES OF EVIDENCE

As allowed by 40 C.F.R. § 257.94(e)(2), this ASD demonstrates that sources other than the GMF Pond (the CCR unit) caused the SSIs. LOE supporting this ASD include the following:

1. The ionic composition of potential GMF Pond source water is different from the ionic composition of groundwater.
2. Proximity of the GMF Pond to historical mining activity and related groundwater quality impacts.
3. The GMF Pond has a double geomembrane liner designed to prevent CCR contact with groundwater.
4. Boron concentrations in compliance groundwater monitoring wells do not exceed background limits

These LOE are described and supported in greater detail below.

3.1 LOE #1: The Ionic Composition of Potential GMF Pond Source Water is Different from the Ionic Composition of Groundwater

Piper diagrams graphically represent ionic composition of aqueous solutions. A Piper diagram displays the position of water samples relative to their major cation and anion content on the two lower triangular portions of the diagram, providing the information which, when combined on the central, diamond-shaped portion of the diagram, identifies the compositional categories or groupings (hydrochemical facies). Figure A on the following page is a Piper diagram that displays the ionic composition of groundwater samples from the background and compliance wells associated with the GMF Pond and two potential source waters: leachate and porewater. Leachate samples were collected from the ring drain (X301) underlying the GMF Pond during the D11 sampling event. A porewater sample collected in June of 2021 from a temporary monitoring well installed in the gypsum within the pond (XTPW02) is also provided.

It is evident from the Piper diagram that the background (brown symbols) and compliance (blue symbols) wells are in the calcium-bicarbonate hydrochemical facies, and the potential source waters (light and medium green symbols for leachate and porewater, respectively) are in the calcium-sulfate hydrochemical facies. The similarity between the background and compliance wells demonstrates strong similarity between the groundwater composition upgradient and downgradient of the GMF Pond. Additionally, the ionic compositions of the GMF Pond background and compliance groundwater and the potential GMF Pond source water are dissimilar. Together, the similarity of background and compliance groundwater composition and the distinct potential GMF Pond source water composition indicate that the GMF Pond is not the source of CCR constituents detected in GMF Pond groundwater.

DC GMF - D11

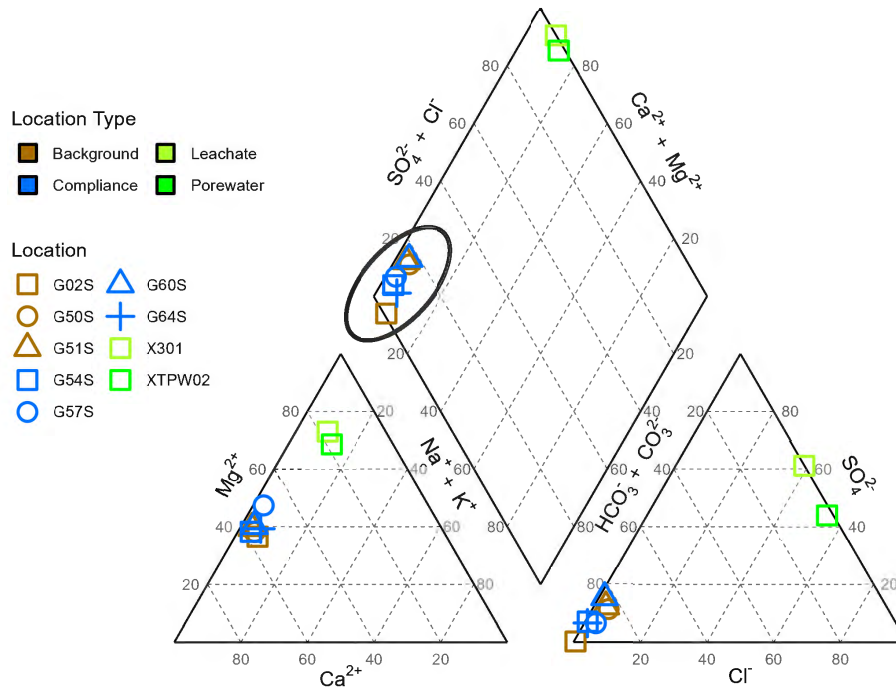


Figure A. Piper Diagram Showing Ionic Composition of Samples of Groundwater and Pond Water Associated with the GMF Pond (brown = background wells, blue = compliance wells, green = potential source water).

3.2 LOE #2: Proximity of the GMF Pond to Historical Mining Activity and Related Groundwater Quality Impacts

The area surrounding the GMF Pond consists primarily of unmined coal and reclaimed surface mine land. The extent of nearby surface mines is shown in the attached Figure 2. The coal in this area has a sulfur content greater than 2.5 pounds of sulfur per million British Thermal Units (BTU), the highest sulfur classification used by Illinois State Geological Survey (ISGS, 1997).

The coal in the area varies in depth from 0 to 50 feet below ground surface (bgs). The CCR Rule groundwater monitoring wells for the GMF Pond are screened between 23 and 48 feet bgs. The compliance monitoring wells are located approximately 2,000 to 4,000 feet south-southeast (downgradient) of the nearby surface mines (Figure 2). Potentiometric data indicate that groundwater generally flows to the east and south towards the GMF Pond and current and former portions of the Cooling Pond as shown on the attached Figure 3.

A study of groundwater quality near surface coal mines, performed by the United States Geological Survey (USGS, 2006), provides data on the effects of mines on groundwater quality. The study evaluated regional differences in major ionic composition of groundwater in unmined and mined areas using Piper diagrams (Figure B on the following page). Groundwater samples collected from wells downgradient of the reclaimed mine areas in the study ranged from primarily calcium-magnesium carbonate-bicarbonate type (calcium-bicarbonate hydrochemical facies) to a lesser

amount of calcium-magnesium sulfate type (calcium sulfate hydrochemical facies). The calcium-bicarbonate groundwater documented in the vicinity of reclaimed surface coal mines is similar to the ionic composition of groundwater samples collected from both background and compliance groundwater monitoring wells at the GMF Pond.

State of Illinois groundwater quality regulations (Title 35 of the Illinois Administrative Code [35 I.A.C.] § 620 - Groundwater Quality) acknowledge that water quality is adversely affected in areas where coal mining activity has occurred. The groundwater quality standards for TDS, chloride, iron, manganese, sulfate, and pH within previously mined areas are the existing concentrations of these constituents in groundwater (35 I.A.C. § 620.440).

The proximity of the GMF Pond to historic coal mining activity, hydrological connection between former mining areas and monitored GMF Pond groundwater, and similarities in the ionic composition of groundwater in areas of reclaimed surface coal mines and in the GMF Pond groundwater samples indicates historic mining activity as an alternate source driving the SSIs at the GMF Pond.

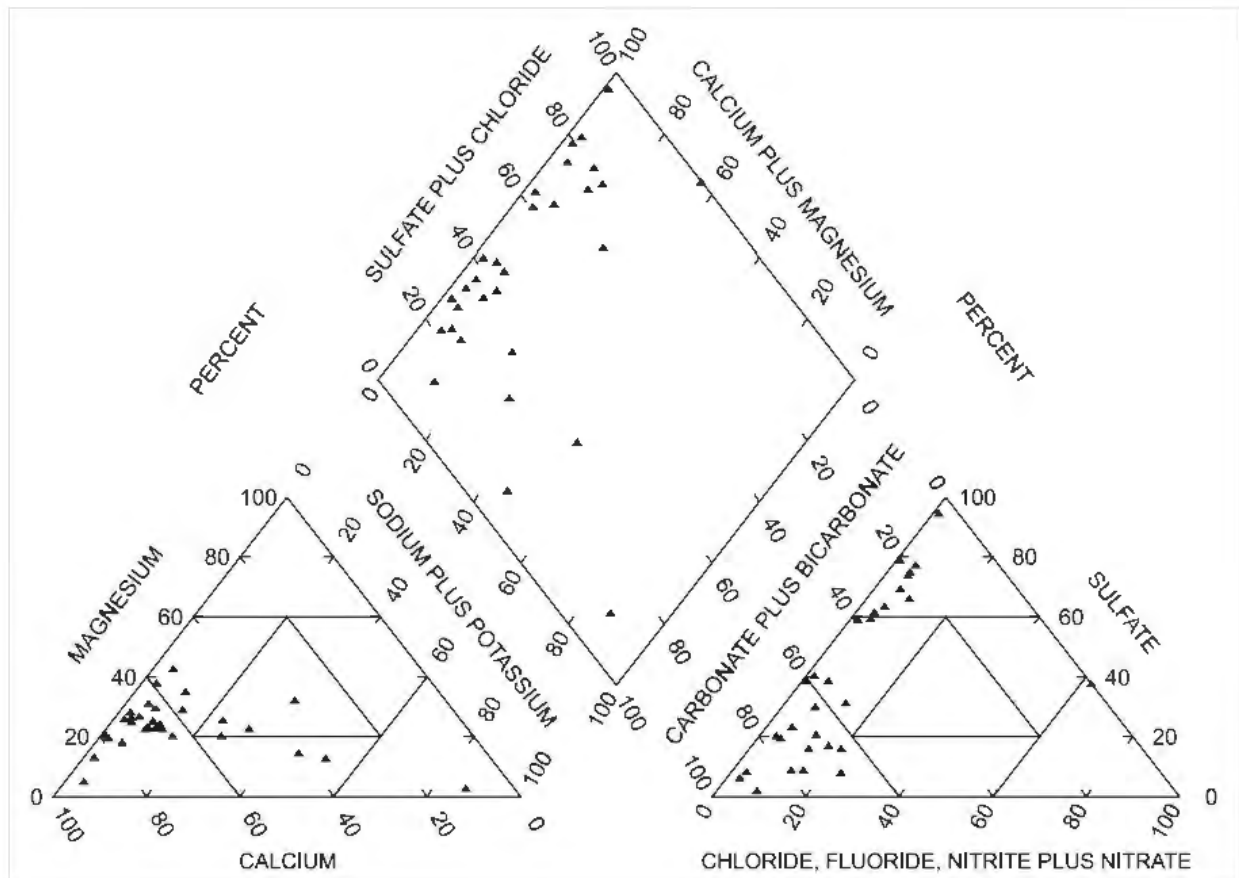


Figure B. Piper Diagram Showing Ionic Composition of Groundwater Downgradient of Reclaimed Surface Coal Mines in High-Sulfur Coal Regions (Modified from USGS).

3.3 LOE #3: The GMF Pond Has a Double Geomembrane Liner Designed to Prevent CCR Contact with Groundwater

Construction of the GMF Pond was in accordance with Water Pollution Control Permit 2017-EO-62336 granted by the Illinois Environmental Protection Agency (IEPA). The GMF Pond liner system includes the following components:

- 60-mil high-density polyethylene (HDPE) geomembrane liner
- Minimum 12-inch soil cushion layer (up to 24 inches thick in select areas on the side slope)
- 4 ounce per square yard (oz/yd²) non-woven geotextile filter fabric
- 12-inch highly permeable granular drainage sand layer
- 10 oz/yd² non-woven geotextile filter fabric
- 60-mil HDPE geomembrane liner
- Geosynthetic clay liner with a manufacturer's published hydraulic conductivity estimate of 5×10^{-9} centimeters per second (cm/s)
- 36-inch compacted clay layer with a maximum hydraulic conductivity of 9×10^{-7} cm/s based upon laboratory testing of samples collected from the site

The IEPA-approved GMF Pond double geomembrane liner system far exceeds the design criteria for a composite liner for new CCR landfills established by 40 C.F.R. § 257.70(b).

The double geomembrane liner creates a barrier to groundwater flow through the CCR managed in the GMF Pond, suggesting that the GMF Pond is not the source of the SSIs.

3.4 LOE #4: Boron Concentrations in Compliance Groundwater Monitoring Wells Do Not Exceed Background Limits

Boron is a potential indicator of CCR impacts to groundwater due to its leachability from CCR and mobility in groundwater. If boron concentrations are present above background concentrations in CCR porewater or leachate, then groundwater impacted by CCR would be expected to contain boron concentrations elevated above the UPL. The UPL is an upper bound on background concentrations calculated for comparing compliance well results to background. Porewater and leachate within the GMF Pond are greater than the UPL of 0.059 mg/L. Boron concentrations detected in compliance monitoring wells with SSIs G54S, G57S, and G60S during D11 were 0.035 mg/L, 0.026 mg/L, and 0.021 mg/L, respectively. Compliance wells having concentrations of boron at or below the UPL indicates that these wells have not been affected by CCR. Therefore, the GMF Pond is not the source of the SSIs.

4. CONCLUSIONS

Based on the four LOEs below, it has been demonstrated that the GMF Pond is not the source of SSIs of calcium at G54S, G57S, and G60S; and of TDS at G54S, G57S, and G60S.

1. The ionic composition of potential GMF Pond source water is different from the ionic composition of groundwater.
2. Proximity of the GMF Pond to historical mining activity and related groundwater quality impacts.
3. The GMF Pond has a double geomembrane liner designed to prevent CCR contact with groundwater.
4. Boron concentrations in compliance groundwater monitoring wells do not exceed background limits.

This information serves as the written ASD prepared in accordance with 40 C.F.R. § 257.94(e)(2) that the SSIs observed during the detection monitoring program were not due to the GMF Pond. Therefore, an assessment monitoring program is not required and the GMF Pond will remain in detection monitoring.

5. REFERENCES

Illinois State Geological Survey (ISGS), 1997. *Illinois Coal Reserves Assessment and Database Development: Final Report*. Open File Series 1997-4, Illinois State Geological Survey, Coal Section.

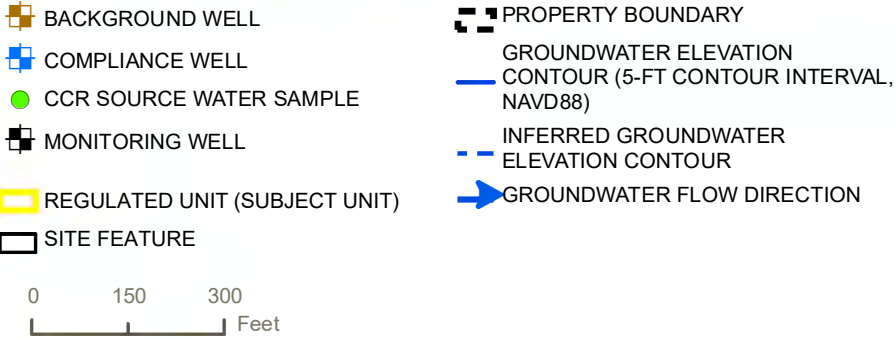
Natural Resource Technology, an OBG Company (NRT/OBG), 2017. *Hydrogeologic Monitoring Plan. Duck Creek GMF Pond – CCR Unit ID 203, Duck Creek Landfill – CCR Unit ID 204. Duck Creek Power Station, Canton, Illinois*. Illinois Power Resources Generating, LLC. October 17, 2017.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. *Hydrogeologic Site Characterization Report. Duck Creek Power Plant, Gypsum Management Facility Pond, Canton, Illinois*. Illinois Power Generating Company. October 25, 2021.

United States Environmental Protection Agency, 2020. *Disposal of Coal Combustion Residuals from Electric Utilities*. 40 C.F.R. § 257 Subpart D, published April 17, 2015, updated 2020. Accessed from URL <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-257/subpart-D>

United States Geological Survey (USGS), 2006. *Ground-Water Quality in Unmined Areas and Near Reclaimed Surface Coal Mines in the Northern and Central Appalachian Coal Regions, Pennsylvania and West Virginia*. Scientific Investigations Report 2006-5059, US Geological Survey.

FIGURES



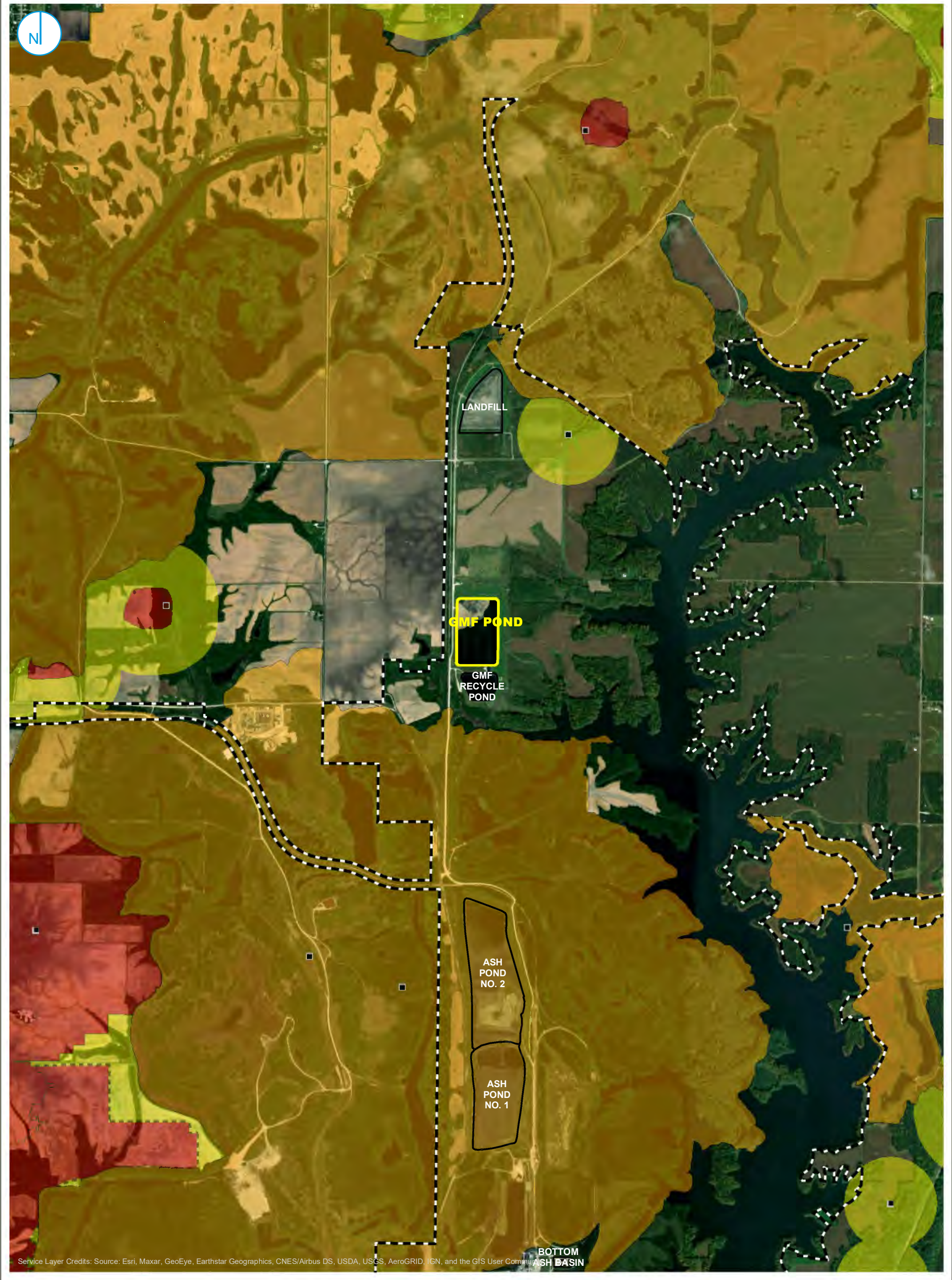
GMF POND POTENTIOMETRIC SURFACE MAP JULY 18, 2022

ALTERNATE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 1

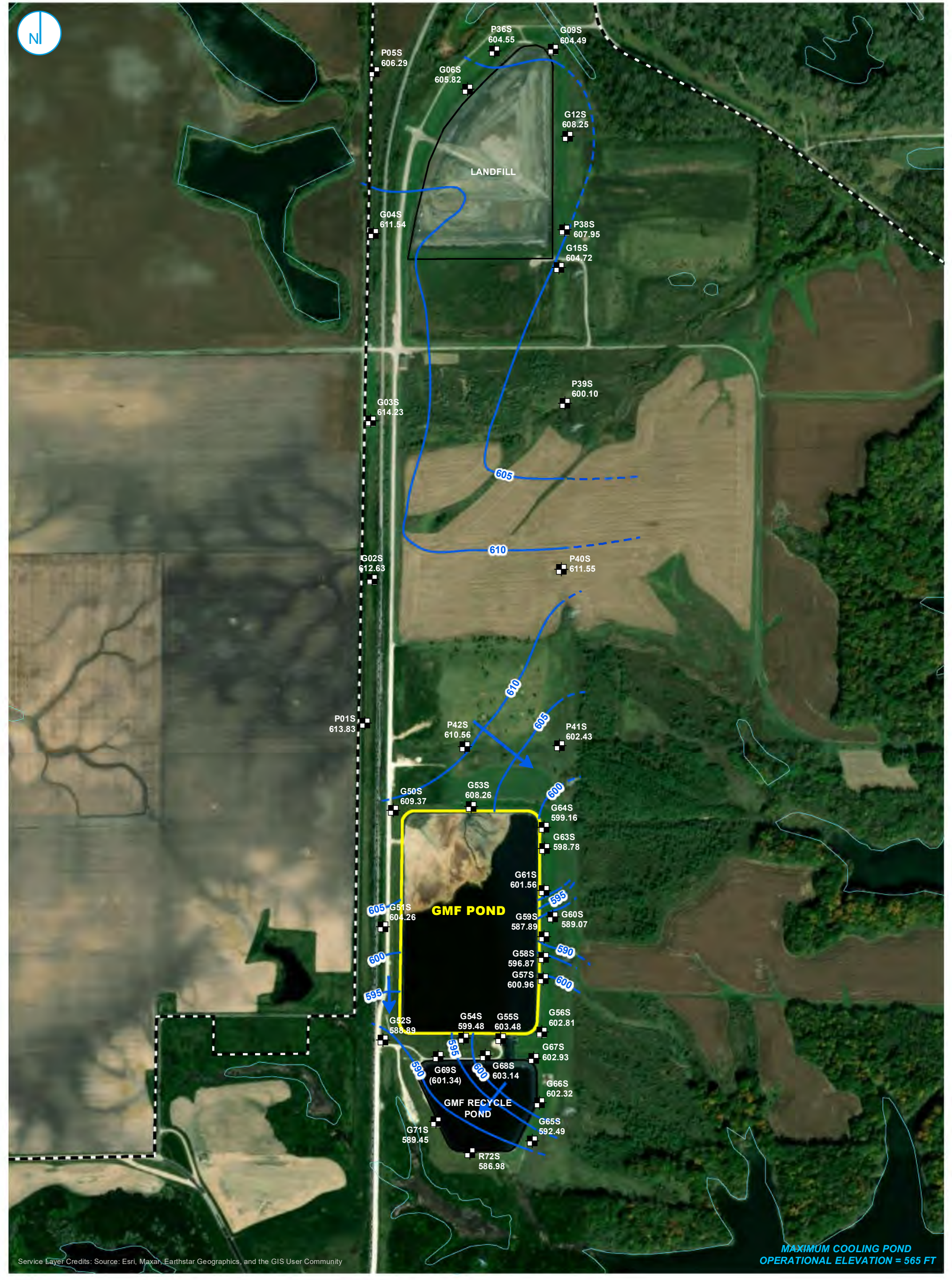
RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.





COAL MINE COVERAGE AREA

FIGURE 2



MONITORING WELL

REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

PROPERTY BOUNDARY

GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

SURFACE WATER (USGS, 2019)

Notes

ELEVATIONS IN PARENTHESES NOT USED FOR CONTOURING

0

300

600

Feet

LANDFILL AND GYPSUM MANAGEMENT
FACILITIES POTENTIOMETRIC SURFACE
MAP JULY 18, 2022

ALTERNATE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Intended for

Illinois Power Resources Generating, LLC

Date

August 14, 2023

Project Number

1940103649-005

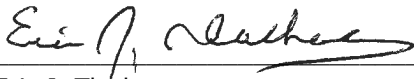
**40 C.F.R. § 257.94(E)(2): ALTERNATE
SOURCE DEMONSTRATION
DUCK CREEK POWER PLANT
GYPSUM MANAGEMENT FACILITY POND
CCR UNIT 203**



Bright ideas. Sustainable change.

CERTIFICATIONS

I, Eric J. Tlachac, a qualified professional engineer in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.



Eric J. Tlachac
Qualified Professional Engineer
062-063091
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: August 14, 2023



I, Brian G. Hennings, a professional geologist in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.



Brian G. Hennings
Professional Geologist
196.001482
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: August 14, 2023



CONTENTS

1.	Introduction	3
2.	Background	4
2.1	Site Location and Description	4
2.2	Geology and Hydrogeology	4
2.3	GMF Pond Groundwater and Porewater Monitoring	5
3.	Alternate Source Demonstration: Lines of Evidence	6
3.1	LOE #1: The GMF Pond Has a Double Geomembrane Liner Designed to Prevent CCR Contact with Groundwater	6
3.2	LOE #2: Boron Concentrations in Compliance Groundwater Monitoring Wells Do Not Exceed Background Limits	7
3.3	LOE #3: The Major Ion Composition of GMF Pond Groundwater is Similar to Background And Distinct From GMF Pond Leachate/Porewater	7
3.4	LOE #4: Proximity of the GMF Pond to Historical Mining Activity and Related Groundwater Quality Impacts	8
3.5	LOE #5: Geochemical analysis and empirical observations at and near G60L suggest that a localized pocket of native peat is the source of SSIs at G60L	10
4.	Conclusions	11
5.	References	12

TABLES (IN TEXT)

Table A Summary of Boron Concentrations in Compliance Wells with D12 SSIs

FIGURES (IN TEXT)

Figure A Piper Diagram Showing Ionic Composition of Groundwater and Pond Water Samples Associated with the GMF Pond.

Figure B Piper Diagram Showing Ionic Composition of Groundwater Downgradient of Reclaimed Surface Coal Mines in High-Sulfur Coal Regions (Modified from USGS).

FIGURES (ATTACHED)

Figure 1 GMF Pond Potentiometric Surface Map – January 9 and 16, 2023

Figure 2 Coal Mine Coverage Area

Figure 3 Landfill and Gypsum Management Facilities Potentiometric Surface Map - January 9 and 16, 2023

APPENDICES

Appendix A Technical Memorandum: Draft Geochemical Analysis of Duck Creek Groundwater In Support of an Alternate Source Demonstration (ASD)

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternate Source Demonstration
bgs	below ground surface
BTU	British Thermal Unit
CCR	coal combustion residuals
CCR Rule	40 C.F.R. § 257 Subpart D
cm/s	centimeters per second
D12	Detection Monitoring Round 12
DCPP	Duck Creek Power Plant
GMF	Gypsum Management Facility
HDPE	high-density polyethylene
IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
LOE(s)	line(s) of evidence
mg/L	milligrams per liter
NAVD88	North American Vertical Datum of 1988
NRT/OBG	Natural Resource Technology, an OBG Company
oz/yd ²	ounce per square yard
PCA	Principal component analysis
PMP	potential migration pathway
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SSI	Statistically Significant Increase
TDS	total dissolved solids
UA	Uppermost Aquifer
UPL	Upper Prediction Limit
USGS	United States Geological Survey

1. INTRODUCTION

Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.94(e)(2) allows the owner or operator of a coal combustion residuals (CCR) unit 90 days from the date of determination of Statistically Significant Increases (SSI) over background for groundwater constituents listed in Appendix III of 40 C.F.R. § 257 to complete a written demonstration that a source other than the CCR unit being monitored caused the SSI(s), or that the SSI(s) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality (Alternate Source Demonstration [ASD]).

This ASD has been prepared on behalf of Illinois Power Resources Generating, LLC by Ramboll Americas Engineering Solutions, Inc. (Ramboll) to provide pertinent information pursuant to 40 C.F.R. § 257.94(e)(2) for the Duck Creek Power Plant (DCPP) Gypsum Management Facility (GMF) Pond located near Canton, Illinois.

The twelfth semiannual detection monitoring samples (Detection Monitoring Round 12 [D12]) were collected from January 11 through January 16, 2023, and analytical data were received on February 15, 2023. In accordance with 40 C.F.R. § 257.93(h)(2), statistical analysis of the data to identify SSIs of 40 C.F.R. § 257 Subpart D (CCR Rule) Appendix III parameters over background concentrations was completed by May 16, 2023, within 90 days of receipt of the analytical data. The statistical determination identified the following SSIs at compliance monitoring wells:

- Calcium at wells G54S, G54L, G57S, and G60S
- Chloride at well G54L
- Sulfate at well G60L
- Total dissolved solids (TDS) at wells G54S, G54L, G57S, G60S, G60L, and G64L
- pH at well G60L

In accordance with the Multi-Site Statistical Analysis Plan (Ramboll, 2022), all wells with SSIs were resampled. Following evaluation of analytical data from the resample event, the following SSIs remained:

- Calcium at wells G54S, G54L, G57S, and G60S
- Chloride at well G54L
- Sulfate at well G60L
- TDS at wells G54S, G54L, G57S, G60S, G60L, and G64L
- pH at well G60L

Pursuant to 40 C.F.R. § 257.94(e)(2), the lines of evidence (LOEs) presented in **Section 3** demonstrate that sources other than the GMF Pond were the cause of the SSIs listed above. This ASD was completed by August 14, 2023, within 90 days of determination of the SSIs (May 16, 2023), as required by 40 C.F.R. § 257.94(e)(2).

2. BACKGROUND

2.1 Site Location and Description

The DCPD is located in Fulton County, in central Illinois, approximately 9 miles southeast of the town of Canton. Duck Creek Cooling Pond is located east of the power plant and the GMF Pond with agricultural land surrounding the entire property.

2.2 Geology and Hydrogeology

The DCPD geologic and hydrogeologic setting summarized below is obtained from published sources, hydrogeologic investigation data, and boring data collected during site investigations conducted from 2005 to 2021 (Natural Resource Technology, an OBG Company [NRT/OBG], 2017; Ramboll, 2021).

Regionally, the DCPD is positioned on the glacial uplands above the Illinois River in the Ancient Illinois Floodplain of the Till Plains Section of the Central Lowland Province. The undisturbed unlithified materials consist of loess, diamictos, and lacustrine/alluvial deposits. The area is flat to gently rolling uplands that are dissected by deeply incised streams that are tributaries to major river systems.

Several large former surface coal mines are present in the vicinity. Strip mining in the region since the 1930s disrupted the natural stratigraphy down to the Springfield (No. 5) Coal unit. The strip mining activity produced rough topography from soil piles and depressions, often ponded with water. Unlithified materials are present in the excavated strip mine spoils and have been mixed due to the surface mining activities. Mining operations in the area have ceased.

The uppermost bedrock stratum in the area is the Carbondale Formation of the Kewanee Group of the Pennsylvanian System. The Carbondale Formation consists primarily of shaley siltstone and silty shale and includes the Springfield (No. 5) Coal and other coal units. Bedrock occurs within approximately 50 feet of the ground surface in this area.

Quaternary deposits in the Canton area consist mainly of loess, diamictos, and lacustrine/alluvial deposits that were deposited during Illinoian and Wisconsinan glaciations. Four hydrostratigraphic units have been identified at the DCPD based on stratigraphic relationships and common hydrogeologic characteristics, and are summarized as follows (beginning at the ground surface):

- CCR – This unit is composed of gypsum CCR, present within the GMF Pond at a thickness ranging from less than 1 to 22 feet. The thickest areas of gypsum are to the north and west within the GMF Pond and thin toward the south end of the GMF Pond.
- Uppermost Aquifer (UA) – At the GMF Pond, this unit includes the Peoria/Roxanna Loess, the upper Radnor Till, and shallow sands. These units are hydraulically connected and underlain by a thick till sequence of the Radnor Till. The shallow sand zone is the primary migration pathway within these hydraulically connected formations. The shallow sands are laterally extensive across the site, vary in thickness from less than 1 to 18 feet, and are generally located at an elevation of 570 to 590 feet North American Vertical Datum of 1988 (NAVD88). The shallow sand is saturated. During construction of the GMF Pond, sand was completely removed everywhere it was encountered (mainly the northeast corner and southwest corner

of the pond), putting the base of the liner in contact with clay of the lower Radnor Till. Sand outside the GMF Pond footprint remains in place.

- The Peoria/Roxanna Loess within the UA has been identified as a potential migration pathway (PMP). While the primary migration pathway (*i.e.*, the UA) is the shallow sand of the UA, impacts have the potential to migrate within groundwater in the overlying Peoria/Roxanna Loess. The PMP is saturated at depths of 3.5 to 11 feet below ground surface (bgs). While the PMP and UA are hydraulically connected, groundwater flow in the PMP is expected to be primarily vertical, with the majority of the horizontal migration expected to occur within the UA.
- Lower Radnor Till/Lower Confining Unit – Underlying the UA, the lower Radnor Till is approximately 42 to 58 feet thick. Previous hydrogeologic studies indicate discontinuous sand lenses observed within the till are not hydraulically connected to the UA.
- Bedrock Confining Unit – The bedrock encountered across the site consists of low permeability shaley siltstone, silty shale, and coal beds of the Carbondale Formation, and is estimated to have a thickness of approximately 300 to 400 feet.

Groundwater elevations (referenced to NAVD88) in the UA near the GMF Pond are shown on **Figure 1**. Groundwater elevations were measured on January 9, 2023, prior to a combined sampling event at the DCPD for the three CCR units located there and for multiple monitoring programs required by both federal and state regulatory agencies. Groundwater elevations at the GMF Pond ranged from 611.72 to 595.06 feet NAVD88.

2.3 GMF Pond Groundwater and Porewater Monitoring

The CCR Rule groundwater monitoring system for the GMF Pond is shown on Figure 1. Monitoring wells G02S, G50S, and G51S are used to monitor background groundwater quality for the GMF Pond. These wells are located north (G02S), northwest (G50S), and west (G51S) of the GMF Pond. The compliance monitoring wells screened in the UA are G54S, G57S, G60S, and G64S. The compliance monitoring wells screened in the PMP are G54L, G60L, and G64L.

GMF Pond source water samples are collected from the GMF Pond at location X301, a riser pipe from the ring drain beneath the pond that collects leachate and pond surface water. The most recent pond water sample was collected from X301 on January 16, 2023. Location XTPW02 is a temporary monitoring well installed in the gypsum within the pond for collection of porewater (Figure 1). XTPW02 was last sampled in June of 2021.

3. ALTERNATE SOURCE DEMONSTRATION: LINES OF EVIDENCE

As allowed by 40 C.F.R. § 257.94(e)(2), this ASD demonstrates that sources other than the GMF Pond (the CCR unit) caused the SSIs. LOEs supporting this ASD include the following:

1. The GMF Pond has a double geomembrane liner designed to prevent CCR contact with groundwater.
2. Boron concentrations in compliance groundwater monitoring wells do not exceed background limits.
3. The major ion composition of GMF groundwater is similar to background and distinct from GMF Pond leachate/porewater.
4. Proximity of the GMF Pond to historical mining activity and related groundwater quality impacts.
5. Geochemical analysis and empirical observations at and near G60L suggest that a localized pocket of native peat is the source of SSIs at G60L.

These LOEs are described and supported in greater detail below. LOEs 1, 2, and 3 address SSIs at all wells. LOE 4 addresses the calcium, chloride, and TDS SSIs at wells G54S, G57S, G60S, G54L, and G64L. LOE 5 addresses the sulfate, pH, and TDS exceedances at G60L.

3.1 LOE #1: The GMF Pond Has a Double Geomembrane Liner Designed to Prevent CCR Contact with Groundwater

Construction of the GMF Pond was in accordance with Water Pollution Control Permit 2017-EO-62336 granted by the Illinois Environmental Protection Agency (IEPA). The GMF Pond liner system includes the following components:

- 60-mil high-density polyethylene (HDPE) geomembrane liner
- Minimum 12-inch soil cushion layer (up to 24 inches thick in select areas on the side slope)
- 4 ounce per square yard (oz/yd²) non-woven geotextile filter fabric
- 12-inch highly permeable granular drainage sand layer
- 10 oz/yd² non-woven geotextile filter fabric
- 60-mil HDPE geomembrane liner
- Geosynthetic clay liner with a manufacturer's published hydraulic conductivity estimate of 5×10^{-9} centimeters per second (cm/s)
- 36-inch compacted clay layer with a maximum hydraulic conductivity of 9×10^{-7} cm/s based upon laboratory testing of samples collected from the site

The IEPA-approved GMF Pond double geomembrane liner system far exceeds the design criteria for a composite liner for new CCR landfills established by 40 C.F.R. § 257.70(b).

The double geomembrane liner creates a barrier to groundwater flow through the CCR managed in the GMF Pond, suggesting that the GMF Pond is not the source of the SSIs.

3.2 LOE #2: Boron Concentrations in Compliance Groundwater Monitoring Wells Do Not Exceed Background Limits

Boron is a potential indicator of CCR impacts to groundwater due to its leachability from CCR, low occurrence as an anthropogenic contaminant, and mobility in groundwater (EPRI, 2012). If boron concentrations are present above background groundwater concentrations in CCR porewater or leachate, then groundwater impacted by CCR would be expected to contain boron concentrations elevated above the background Upper Prediction Limit (UPL). The UPL is an upper bound on background concentrations calculated for comparing compliance well results to background. Porewater and leachate from the GMF Pond have boron concentrations greater than the UPL of 0.059 milligrams per liter (mg/L). Boron concentrations detected in compliance monitoring wells with SSIs are summarized in **Table A** below. All compliance wells with SSIs had concentrations of boron at or below the UPL, indicating that these wells have not been affected by CCR. Therefore, the GMF Pond is not the source of the SSIs.

Table A. Summary of Boron Concentrations in Compliance Wells with D12 SSIs.

	G54S	G54L	G57S	G60L	G60S	G64L
Boron (mg/L) (UPL=0.059 mg/L)	0.031	0.012	0.009	0.028	0.021	0.014

3.3 LOE #3: The Major Ion Composition of GMF Pond Groundwater is Similar to Background And Distinct From GMF Pond Leachate/Porewater

Piper diagrams graphically represent the major ion composition of aqueous solutions. A Piper diagram displays the position of water samples relative to their major cation and anion content on the two lower triangular portions of the diagram, providing the information which, when combined on the central, diamond-shaped portion of the diagram, identifies the compositional categories or groupings (hydrochemical facies). **Figure A** on the following page is a Piper diagram that displays the ionic composition of groundwater samples from the background and compliance wells associated with the GMF Pond, as well as leachate and porewater. Leachate samples were collected from the ring drain (X301) underlying the GMF Pond during the D12 sampling event. A porewater sample collected in June of 2021 from a temporary monitoring well installed in the gypsum within the pond (XTPW02) is also provided. Wells with calcium, chloride, and/or TDS SSIs at wells G54S, G57S, G60S, G54L, and G64L are circled in red. The major ion composition of G60L is discussed in **Appendix A**.

It is evident from the Piper diagram that the background (brown symbols) and compliance (blue symbols) wells are in the calcium-bicarbonate hydrochemical facies, and the potential source waters (light and medium green symbols for leachate and porewater, respectively) are in the calcium-sulfate hydrochemical facies. The ionic composition of the background and compliance wells demonstrate strong similarity. Additionally, the ionic compositions of the GMF Pond background and compliance groundwater and the GMF Pond leachate/porewater are dissimilar. Together, the similarity of background and compliance groundwater ionic composition and the differences between groundwater and leachate/porewater indicate that the GMF Pond is not the source of CCR constituents detected in GMF Pond groundwater.

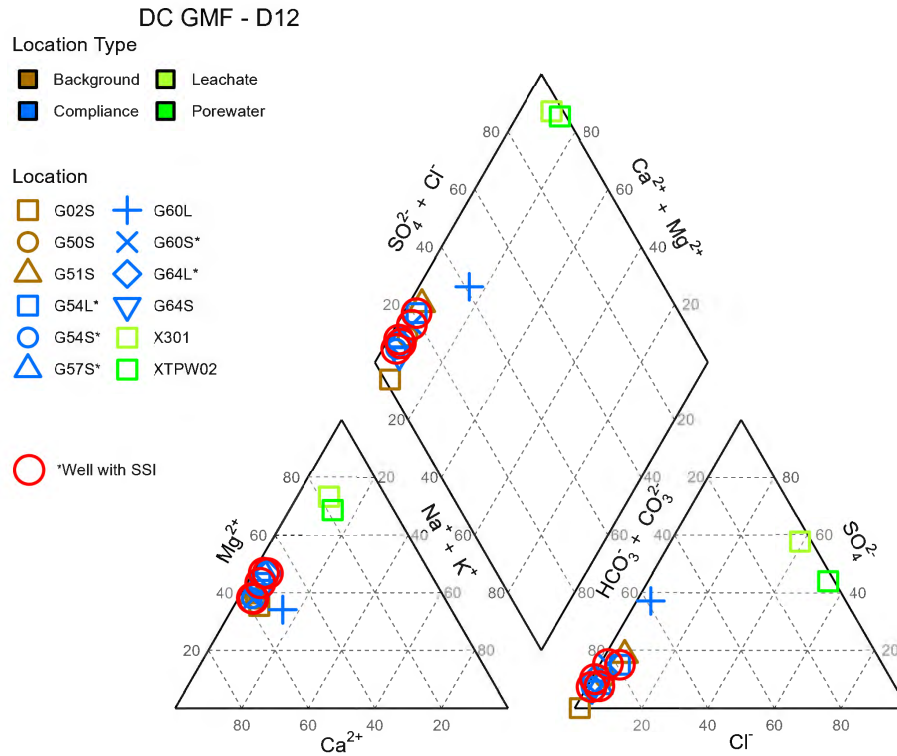


Figure A. Piper Diagram Showing Ionic Composition of Groundwater and Pond Water Samples Associated with the GMF Pond (brown = background wells, blue = compliance wells, green = leachate/porewater). Wells with calcium, chloride, and/or TDS exceedances at wells G54S, G57S, G60S, G54L, and G64L are circled in red.

3.4 LOE #4: Proximity of the GMF Pond to Historical Mining Activity and Related Groundwater Quality Impacts

The area surrounding the GMF Pond consists primarily of unmined coal and reclaimed surface mine land. The extent of nearby surface mines is shown in the attached **Figure 2**. The coal in this area has a sulfur content greater than 2.5 pounds of sulfur per million British Thermal Units (BTU), the highest sulfur classification used by Illinois State Geological Survey (ISGS, 1997).

The coal in the area varies in depth from 0 to 50 feet bgs. The CCR Rule groundwater monitoring wells for the GMF Pond are screened between 23 and 48 feet bgs. The compliance monitoring wells are located approximately 2,000 to 4,000 feet south-southeast (downgradient) of the nearby surface mines (**Figure 2**). Potentiometric data indicate that groundwater generally flows to the east and south towards the GMF Pond and current and former portions of the Cooling Pond located east of the GMF Pond, as shown on the attached **Figure 3**.

A study of groundwater quality near surface coal mines, performed by the United States Geological Survey (USGS, 2006), provides data on the effects of mines on groundwater quality. The study evaluated regional differences in major ionic composition of groundwater in unmined and mined areas using Piper diagrams (**Figure B** on the following page). Groundwater samples collected from wells downgradient of the reclaimed mine areas in the study ranged from primarily calcium-

magnesium carbonate-bicarbonate type (calcium-bicarbonate hydrochemical facies) to a lesser amount of calcium-magnesium sulfate type (calcium sulfate hydrochemical facies). The calcium-bicarbonate groundwater documented in the vicinity of reclaimed surface coal mines is similar to the ionic composition of groundwater samples collected from both background and compliance groundwater monitoring wells at the GMF Pond (see **Figure A** in LOE #3).

State of Illinois groundwater quality regulations (Title 35 of the Illinois Administrative Code [35 I.A.C.] § 620 - Groundwater Quality) acknowledge that water quality is adversely affected in areas where coal mining activity has occurred. The groundwater quality standards for TDS, chloride, iron, manganese, sulfate, and pH within previously mined areas are the existing concentrations of these constituents in groundwater (35 I.A.C. § 620.440c).

The proximity of the GMF Pond to historic coal mining activity and similarities in the ionic composition of groundwater in areas of reclaimed surface coal mines and in the GMF Pond groundwater samples indicates historic mining activity as an alternate source driving the SSIs at the GMF Pond.

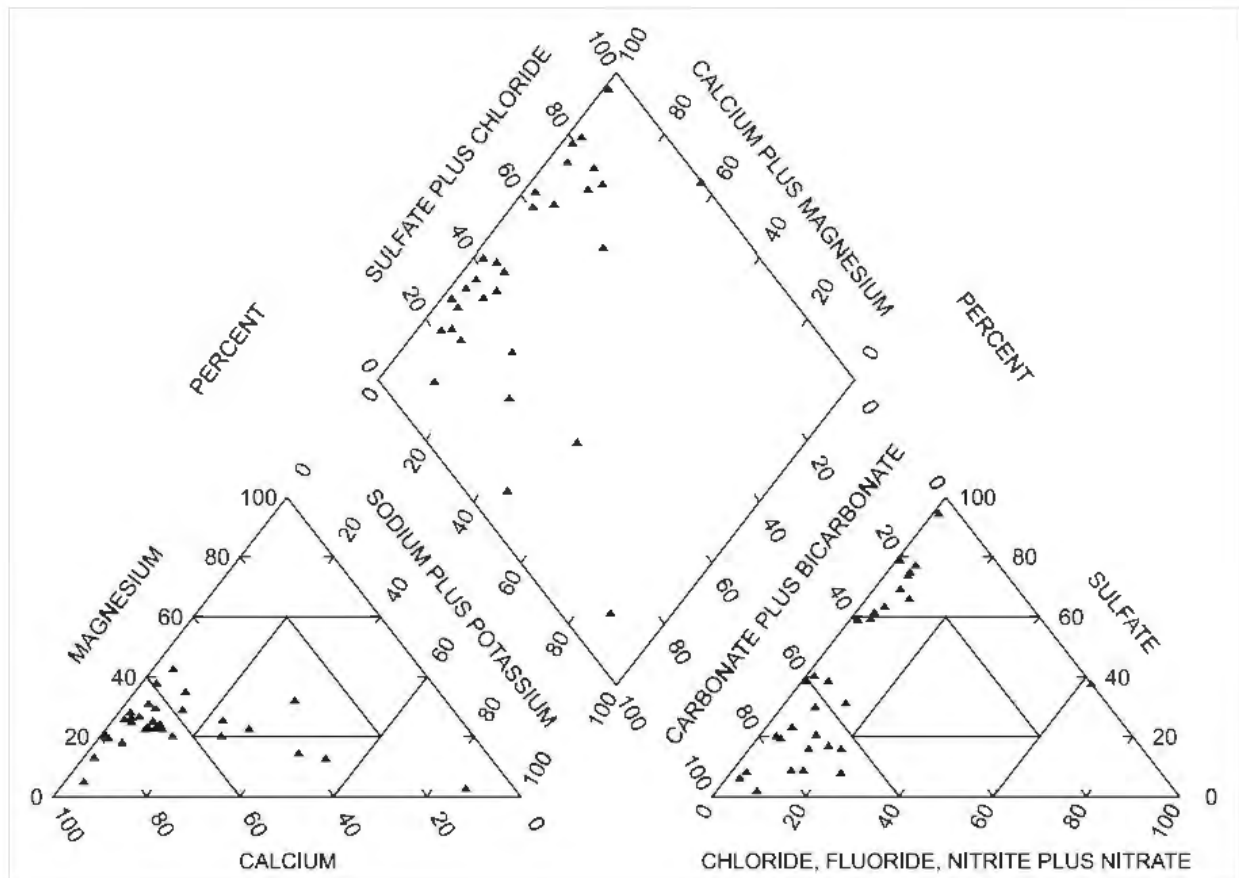


Figure B. Piper Diagram Showing Ionic Composition of Groundwater Downgradient of Reclaimed Surface Coal Mines in High-Sulfur Coal Regions (Modified from USGS).

3.5 LOE #5: Geochemical analysis and empirical observations at and near G60L suggest that a localized pocket of native peat is the source of SSIs at G60L

Multivariate statistical analysis of the groundwater and GMF Pond leachate/porewater data, review of ionic composition of both, and literature review were performed by Life Cycle Geo, LLC to support the conclusion that the pH, sulfate, and TDS exceedances at G60L are due to the influence of a localized, native peat deposit located upgradient of the well. Details of the analysis are included as **Attachment A**. The following conclusions were made based on the results of the evaluation:

- Principal component analysis (PCA) shows that the groundwater signature at G60L is similar to background and compliance well groundwater signatures and distinct from the leachate signature.
- The major ion composition of groundwater at G60L is inconsistent with influence from leachate due to a low proportion of chloride, an indicator of CCR impacts in groundwater and is similar to the major ion composition of nearby wells.
- A localized native peat deposit located upgradient of G60L is the likely source of the pH, sulfate, and TDS exceedances based on literature review of peat influence on groundwater conditions, evaluation of other wells downgradient of the peat deposit, and the absence of CCR indicators boron and chloride.

4. CONCLUSIONS

Based on the five LOEs below, it has been demonstrated that the GMF Pond is not the source of SSIs of calcium at G54S, G54L, G57S, and G60S; chloride at G54L; sulfate at G60L; TDS at G54S, G54L, G57S, G60S, G60L, and G64L; and pH at G60L.

1. The GMF Pond has a double geomembrane liner designed to prevent CCR contact with groundwater.
2. Boron concentrations in compliance groundwater monitoring wells do not exceed background limits.
3. The major ion composition of GMF groundwater is similar to background and distinct from GMF Pond leachate/porewater.
4. Proximity of the GMF Pond to historical mining activity and related groundwater quality impacts.
5. Geochemical analysis and empirical observations at and near G60L suggest that a localized pocket of native peat is the source of SSIs at G60L.

This information serves as the written ASD prepared in accordance with 40 C.F.R. § 257.94(e)(2) that the SSIs observed during the detection monitoring program were not due to the GMF Pond. Therefore, an assessment monitoring program is not required and the GMF Pond will remain in detection monitoring.

5. 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>

Electric Power Research Institute [EPRI], (2012). Groundwater Quality Signatures for Assessing Potential Impacts from Coal Combustion Product Leachate, Report 1017923. October 2012.

Illinois State Geological Survey (ISGS), 1997. *Illinois Coal Reserves Assessment and Database Development: Final Report*. Open File Series 1997-4, Illinois State Geological Survey, Coal Section.

Natural Resource Technology, an OBG Company (NRT/OBG), 2017. *Hydrogeologic Monitoring Plan. Duck Creek GMF Pond – CCR Unit ID 203, Duck Creek Landfill – CCR Unit ID 204. Duck Creek Power Station, Canton, Illinois*. Illinois Power Resources Generating, LLC. October 17, 2017.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. *Hydrogeologic Site Characterization Report. Duck Creek Power Plant, Gypsum Management Facility Pond, Canton, Illinois*. Illinois Power Generating Company. October 25, 2021.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022. *Multi-Site Statistical Analysis Plan*. December 28, 2022.

United States Geological Survey (USGS), 2006. *Ground-Water Quality in Unmined Areas and Near Reclaimed Surface Coal Mines in the Northern and Central Appalachian Coal Regions, Pennsylvania and West Virginia*. Scientific Investigations Report 2006-5059, US Geological Survey.

FIGURES



- COMPLIANCE WELL
- BACKGROUND WELL
- PORE WATER WELL
- CCR SOURCE WATER SAMPLE
- MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- PROPERTY BOUNDARY

- GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

NOTES:
1. PARENTHESES INDICATES WELL NOT USED FOR CONTOURING
2.ELEVATION CONTOURS SHOWN IN FEET.
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)



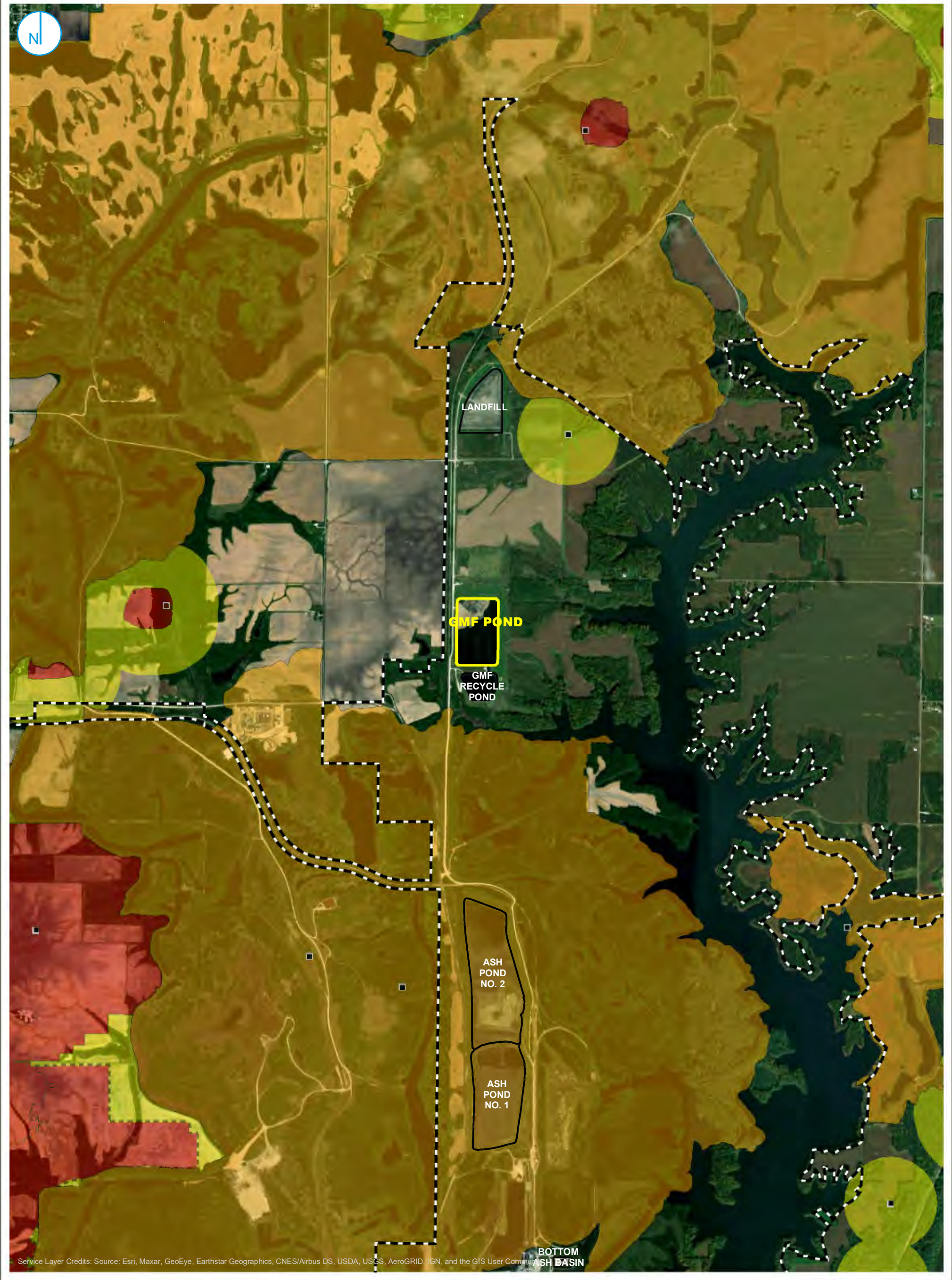
POTENTIOMETRIC SURFACE MAP
JANUARY 9 AND 16, 2023

ALTERNATE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.





- COAL MINE SHAFT
- SURFACE COAL MINE
- UNDERGROUND COAL MINE UNDERGROUND
- MINE BUFFER REGION
- REGULATED UNIT (GMF POND)
- SITE FEATURE
- PROPERTY BOUNDARY

0 1,000 2,000
Feet

COAL MINE COVERAGE AREA

FIGURE 2

ALTERNATE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.





- MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE

- GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- SURFACE WATER (USGS, 2019)

Notes
ELEVATIONS IN PARENTHESES NOT USED FOR CONTOURING



POTENTIOMETRIC SURFACE MAP
JANUARY 9 AND 16, 2023

ALTERNATE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.



**APPENDIX A
TECHNICAL MEMORANDUM: DRAFT GEOCHEMICAL
ANALYSIS OF DUCK CREEK GROUNDWATER IN SUPPORT
OF AN ALTERNATE SOURCE DEMONSTRATION (ASD)**

TECHNICAL MEMORANDUM

DATE August 14, 2023

Reference No. 23RAM01-1

TO Brian G. Hennings - Ramboll
Eric Tlachac - Ramboll

CC Stu Cravens - Vistra

FROM Shannon Zahuranec, Allie Wyman, and
Tom Meuzelaar

EMAIL: shannon@lifecyclegeo.com

GEOCHEMICAL ANALYSIS OF DUCK CREEK GMF POND GROUNDWATER IN SUPPORT OF AN ALTERNATE SOURCE DEMONSTRATION (ASD)

1.0 EXECUTIVE SUMMARY

Life Cycle Geo, LLC. (LCG) has completed a review of geochemical conditions at monitoring well G60L in support of an alternate source demonstration (ASD) in preparation by Ramboll Americas Engineering Solutions, Inc. (Ramboll) for Illinois Power Resources Generating, LLC. The G60L monitoring well monitors conditions in the Loess unit (identified as a potential migration pathway to the uppermost aquifer) downgradient of the Duck Creek Power Plant (DC) Gypsum Management Facility Pond (GMF Pond). Pursuant to 40 C.F.R. § 257 Subpart D (CCR Rule), monitoring well G60L exhibits statistically significant increases (SSIs) of parameters relative to background concentrations after the D12 monitoring event completed January 11-16, 2023, including pH, sulfate, and total dissolved solids (TDS). This technical review considered all available groundwater and solid-phase chemical analysis and empirical field observations, and utilized multivariate statistical analysis to conclude the SSIs at G60L groundwater is due to an alternate source and is unrelated to the GMF Pond. Further, information pertaining to flow conditions, lithology, and solid-phase geochemistry are utilized to conclude that the likely source of low pH and elevated sulfate and TDS is a localized pocket of native peat identified in boring logs immediately upgradient of G60L.

2.0 GROUNDWATER CONDITIONS

Monitoring well G60L is located on the eastern side and downgradient of the GMF Pond (Attachment 1). From 2021 through May 2023 (the period of groundwater monitoring at this well for the 35 I.A.C. § 845 monitoring program), pH at G60L is consistently lower than background groundwater pH, and sulfate and TDS are consistently higher (Table 1). The SSIs for the 40 C.F.R. § 257 monitoring program were not determined at this well until the D12 monitoring event because this well was not added to the 40 CFR § 257 monitoring system until December 2022. Sulfate is found to be the major component of the measured TDS at G60L, representing approximately 30% of the total TDS concentration, and is the primary driver of the TDS SSI. As such, this analysis focuses on the source of the pH and sulfate SSIs, with sulfate used as proxy for TDS.

Table 1: Concentration Ranges for Select Constituents in DC GMF Pond Groundwater and Leachate.

	pH	Sulfate (mg/L)	TDS (mg/L)
G60L	5.90-6.42	160-180	510-630
Background	6.42-7.26	ND-56	290-490



3.0 MULTIVARIATE PRINCIPAL COMPONENTS ANALYSIS

3.1 APPROACH

Groundwater chemistry data are by nature multivariate datasets given the high number of parameters observed per sampling location and date. With such a large number of variables, advanced statistical analysis of multivariate groundwater data can provide important insights into spatial and chemical relationships influencing constituent distribution and compliance in groundwater. The multivariate technique Principal Components Analysis (PCA) is used to interrogate the groundwater chemistry around the GMF Pond.

PCA is a multivariate technique that reduces dataset dimensionality to its principal, independent components thereby revealing the inner structure of the dataset. Multivariate techniques such as PCA are valuable because they identify variables that are highly dependent on each other but do not inherently provide insights into water origin, type, or evolution. As an example, calcium, magnesium, and hardness are typically highly correlated in groundwater datasets, but this relationship is known and does not provide additional insight towards the identification of water types and geochemical processes that describe water quality changes. Reducing multivariate data dimensionality reduces redundant information, revealing inner structures in the data that might otherwise be obscured by these dependencies. These structures might include revealing groups of related variables, changing chemical evolution through time, or spatial locations with similar chemical signatures.

PCA results are most easily viewed on biplots, which depict the sample population plotted on two axes, each representing a principal component. The principal components are created from a linear combination of the original variables in the dataset and variance in the data. For natural compositional datasets, the population variance can often be expressed as six or seven principal components (in some cases less and in others, more), each representing decreasing amounts of variance in the data while remaining uncorrelated to previous principal components. Typically, the first few principal components represent significant dataset variance and include a larger number of variables. The principal components are visualized using biplots with the variables expressed as vectors; the location of groups of samples relative to component vectors provides insight into geochemical relationships among groups of variables and samples.

3.2 DATA PREPARATION

In order to perform multivariate analysis, it is first necessary to prepare the dataset. Raw chemical data requires preparation prior to analysis because the data often contains values in two forms unsuitable for advanced analytics: 1) measurements reported below a method detection limit (MDL), referred to as censored data, and 2) missing values. For this work any sample or analyte with a high percentage ($\geq 40\%$) of missing and/or censored data was assessed for meaningful statistical variance. If variance was determined to be low, the sample or analyte was removed, otherwise data was included in the analysis. Any remaining censored data was converted to half the MDL. Remaining missing values were imputed, a method of assigning an estimated value that accounts for the entire distribution of the material's composition (Sanford et al., 1993) and also takes into consideration the values associated with samples of similar composition. Imputation was done with a nearest neighbor algorithm and resulting values were checked against the overall data distribution for both the analyte and sample to ensure representative results. The resulting



dataset includes both compliance wells and other monitoring wells, incorporates data from multiple lithologic units, and spans sampling events from 2014 through 2023. The dataset contains 15 measured analytes, including the hydrogen ion (H^+), which represents acidity in groundwater and is proportional to pH. The final dataset contained 1425 values, 54 of which were imputed. This data represents both the most recent data measured at the GMF Pond as well as the most complete set of regularly measured and detectable analytes.

PCA also requires transformation of the dataset to address the numeric closure problem inherent within chemical compositional datasets (Aitchison, 1986). Numeric closure can often occur in water quality data since water quality concentrations are not completely independent. To address this issue, all data was converted to the same units and the centered-log ratio transformation (CLR; Aitchison 1986; Egozcue et al. 2011) was applied to the prepared dataset. In practice, closure only significantly affects elements present in large concentrations (e.g., major ions in typical water quality samples), but for consistency the entire dataset (i.e., including trace metals) was CLR-transformed.

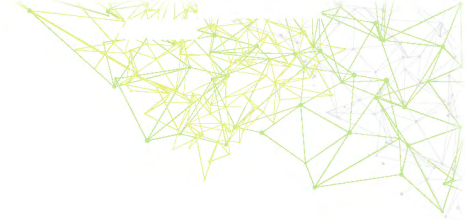
All data preparation was conducted using python programming language. Only total (i.e., unfiltered) concentrations of major ions and metals were used in this analysis as those data are both relatively complete and consistent across the wells around the GMF Pond and are the parameters of interest for regulatory purposes.

3.3 FINDINGS

A biplot for principal components 1 and 2 (PC1 and PC2) is provided in Attachment 2. PC1 explains approximately 53% of the statistical variance in the entire water quality dataset, and imposes the dominant compositional structure observed in the biplot. PC2 explains approximately 14% of the variability in the dataset.

The compositional vectors on the biplot and their position/spacing reveal the following key insights into groundwater geochemistry at the GMF Pond:

- 1) Groundwater samples plot along a linear trend from the upper left quadrant toward the lower left quadrant, with significant overlap between background, compliance, and monitoring wells. This suggests overall groundwater chemistry at compliance wells and monitoring wells is compositionally similar to background conditions.
- 2) Data from G60L plots between H^+ , calcium, sodium, and sulfate vectors, indicating in this case the concentrations are relatively high compared with other locations consistent with the pH and sulfate SSIs at this location. Monitoring well G50L also plots between these vectors, suggesting possible compositional end members distinct from the main cluster of background and compliance wells.
- 3) The majority of porewater and leachate samples plot in the upper right quadrant of the biplot, near the boron, fluoride, and molybdenum vectors. These samples plot far from the groundwater samples, indicating the chemistry of the porewater and leachate is distinct from the chemistry of the groundwater. There are three leachate samples that plot away from the main body of leachate data, with one plotting in the lower right quadrant near the magnesium and chloride vectors. These three samples are (1) chemically distinct from the groundwater samples, (2) irregularly spaced in time, and (3) likely represent anomalous conditions unique to the GMF Pond. These samples are discussed further in Section 4.2.



4.0 MAJOR ION DISTRIBUTION

4.1 APPROACH

Piper diagrams are a useful way to classify water samples based on major ion chemistry. The diagrams include separate ternary anion and cation proportion plots and a central diamond plot for classifying combined cation/anion predominance for overall classification. Piper diagrams account for major ion proportionality, but not for actual concentrations nor trace element chemistry, an important contrast and complement to PCA.

The Piper diagram for the GMF Pond is provided in Attachment 3. Given the large number of sampling locations and sampling instances, the data plotted here is limited to background, leachate, and groundwater wells in the immediate vicinity of G60L over the same time period as the samples included in the PCA. This provides the clearest depiction of both the site-wide data and localized geochemistry around G60L and allows for ease of comparison to the PCA. To provide a more robust evaluation of the local geochemistry in the area of the GMF Pond and to increase the density of datapoints at wells near G60L, the groundwater wells immediately adjacent to G60L are presented as a combination of dissolved and total major ions, rather than exclusively total ions. The difference between total and dissolved major ions was determined qualitatively through comparison of values when both total and dissolved were measured. No major differences were observed, therefore when total phase data was not available, dissolved data was used in place.

4.2 FINDINGS

The primary finding from the Piper diagram is that groundwater at G60L exhibits a major ion composition that is distinct from the GMF Pond leachate. The groundwater samples near G60L all have consistent cation proportions with almost equal distributions of calcium and magnesium, consistent with other compliance groundwater wells around the GMF Pond (Ramboll 2023). The leachate samples differ in that they primarily show a more magnesium-dominant signature. Similarly, the anion proportions of groundwater are distinct from leachate, particularly with respect to chloride. The groundwater samples all show low chloride proportion but exhibit a wide range of sulfate proportion. In contrast, the leachate shows a more consistent composition of anions with a substantial proportion of chloride. The chloride-rich signature of the leachate samples provides critical evidence of chemical separation between leachate and G60L groundwater. Chloride is a conservative ion with regard to groundwater transport, such that it does not tend to interact with the solid phase once dissolved into solution. Therefore, groundwater impacted by GMF Pond leachate should contain a chloride proportion similar to the leachate, or at a proportion falling along a mixing line between the groundwater and leachate. Such a mixing signal is not observed, which paired with low chloride proportion in the groundwater (Attachment 5), is strong evidence that the groundwater at G60L is not influenced by the GMF Pond. This is consistent with the PCA results, which showed both the variability in the groundwater composition and the clear distinction between groundwater and leachate.

Notable distinctions on the Piper diagram are leachate samples from Q2 2020, Q2 2022, and Q1 2023, which correspond to the anomalous leachate samples in the PCA. These samples plot between the groundwater data and the main cluster of leachate data in the cation space. These instances are irregularly spaced



through time and do not have a temporal trend in concentration nor overall major ion composition. This suggests changes are not related to seasonal changes at the site but rather indicates a more random control, such as operational influences on concentrations (e.g., variable proportions of porewater and surface water passing into the leachate collection system or inconsistencies in sample collection).

5.0 IDENTIFIED PROBABLE ALTERNATE SOURCE

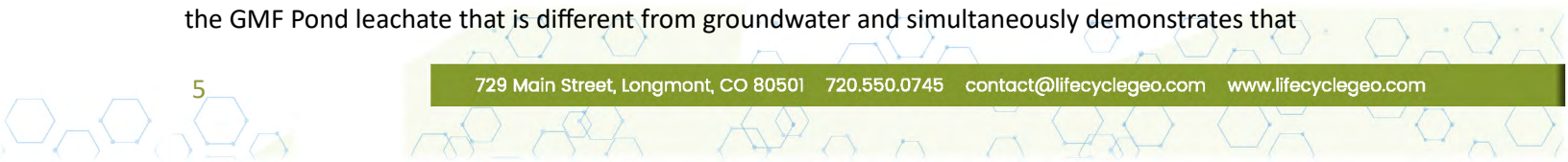
Empirical field observations revealed a localized peat unit in boring B-55 and monitoring well P-60 (Attachment 4), both located immediately upgradient of G60L (Attachment 1). Peat-rich soils in connection with groundwater are known to produce water chemistries with lower pH and higher sulfate concentrations (Bourbonniere, 2009), such as those consistently observed at G60L (Table 1). The peat unit ranges in elevation from 593.2 to 600.6 feet (ft) mean sea level (msl), approximately the same elevation as the top of the filter pack (594.8 ft msl) and just above the elevation of the screened interval (587.4 to 592.4 ft msl) of G60L. The hydraulic conductivity of the filter pack is higher than the surrounding native material and would intercept flow from groundwater under the influence of the local peat. There is a downward vertical component to the hydraulic gradient in this area (Ramboll, 2021), which is consistent with a flow path from the peat unit downgradient horizontally and vertically towards the well screen of G60L.

Other monitoring wells near the local peat unit also exhibit higher sulfate concentrations than background and are stable over time (Attachment 5), supporting the conclusion that this region is influenced by an alternate source of sulfate, the local native peat, rather than the GMF Pond. This is particularly meaningful when considered contextually with boron and chloride concentrations, conservative tracers of CCR-related influence. Sulfate, chloride (Attachment 5), and boron (Ramboll 2023, LOE #2) are all elevated in the leachate while only sulfate is elevated in the groundwater. The low concentrations of boron and chloride in the groundwater at G60L are a strong indicator that sulfate concentrations originate from an alternate source unrelated to the GMF Pond.

While the local peat is the interpreted source of sulfate (and therefore TDS also), it is notable that other wells in the vicinity of G60L do not reflect the same low pH as G60L. In addition to the peat content of the aquifer solids, carbonate content also influences groundwater pH, with higher proportions of carbonate minerals calcite and dolomite present in the aquifer solids resulting in a higher, or more neutral, pH. Therefore, variation in groundwater pH is a function of variability in both peat and carbonate content in the aquifer solids. Carbonate mineralization is known to buffer against pH changes associated with peat. Solid phase mineralogy analysis including X-ray diffraction (XRD; Attachment 6) and sequential extraction (SEP; Attachment 7) data both show variable carbonate content across the site, indicating that some locations have higher pH buffering capacity than others. Aqueous alkalinity concentration, a contributor of aqueous phase pH buffering capacity, is lower at G60L than at surrounding wells (Attachment 5). These data in combination suggest the presence of peat immediately upgradient with the relatively low buffering capacity of the groundwater observed for monitoring well G60L have naturally resulted in a groundwater pH that is lower than the pH of the surrounding site groundwater.

6.0 CONCLUSIONS

This technical review presents empirical evidence and analysis that demonstrates the GMF Pond is not the source of pH, sulfate, and TDS SSIs at compliance well G60L. The PCA identified a geochemical signature in the GMF Pond leachate that is different from groundwater and simultaneously demonstrates that

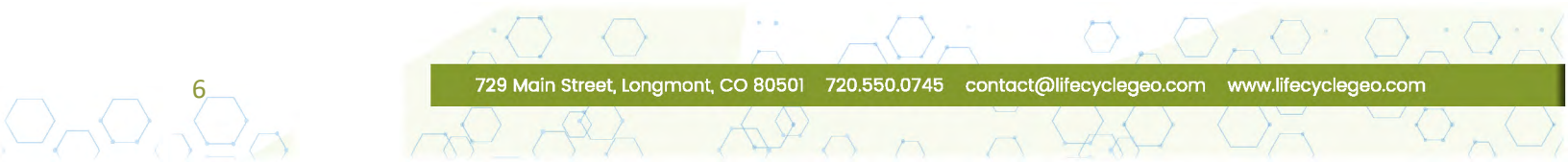


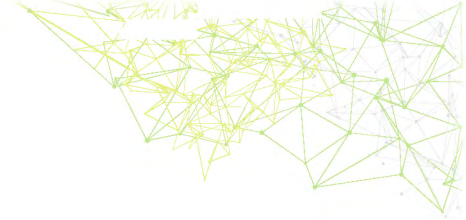


geochemistry at G60L is far more similar to background/compliance wells than to the GMF Pond leachate. This analysis was supported by evaluation of the major ion distribution, which showed a sulfate-chloride leachate signature not evident in the groundwater. The absence of boron and chloride (both conservative tracers) from groundwater further demonstrates the GMF Pond is not impacting G60L. Soil boring logs revealed a localized pocket of native peat immediately upgradient of G60L. The combination of hydraulic gradients, aqueous and solid phase geochemistry, and empirical field observations at this location supports the conclusion that local peat is likely the source of the pH, sulfate, and TDS SSIs at G60L.

7.0 ABBREVIATIONS

Alk, bicarb	Alkalinity measured as bicarbonate, also shown as HCO_3^-
As	Arsenic
B	Boron
Ba	Barium
Ca	Calcium
CCR	Coal combustion residual
Cl	Chloride
CO_3^{2-}	Carbonate ion
DC	Duck Creek
F	Fluoride
Fe	Iron
ft	feet
GMF Pond	Gypsum Management Facility Pond
H^+	Hydrogen ion, represents acidity in groundwater
HCO_3	Bicarbonate alkalinity
K	Potassium
Mg	Magnesium
Mn	Manganese
Mo	Molybdenum
msl	mean sea level
Na	Sodium
SO_4	Sulfate
SSI	Statistically significant increases
TDS	Total dissolved solids





8.0 REFERENCES

- Aitchison, J. 1986. The Statistical Analysis of Compositional Data. Chapman and Hall. London
- Bourbonniere, R. A. 2009. Review of water chemistry research in natural and disturbed peatland. Canadian Water Resources Journal, 34:4, 393-414.
- Egozcue J.J. and V. Pawlowsky-Glahn. 2011. Basic concepts and procedures. In: Pawlowsky-Glahn V, Buccianti A, editors. Compositional data analysis: theory and applications. Chichester: Wiley; 2011. pp. 12–28.
- Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. Hydrogeologic Site Characterization Report. Gypsum Management Facility Pond. Duck Creek Power Plant. Canton, Illinois.
- Ramboll, 2023. Alternate Source Demonstration: Duck Creek Gypsum Management Facility Pond. August.
- Sandford, R. F., C.T. Pierson, and R.A. Crovelli. 1993. An objective replacement method for censored geochemical data: Math. Geol., 25(1), p. 59–80.



- COMPLIANCE WELL
- BACKGROUND WELL
- PORE WATER WELL
- CCR SOURCE WATER SAMPLE
- MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- PROPERTY BOUNDARY

NOTES:
1. PARENTHESES INDICATES WELL NOT USED FOR CONTOURING
2.ELEVATION CONTOURS SHOWN IN FEET.
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)



- GROUNDWATER ELEVATION
CONTOUR (5-FT CONTOUR INTERVAL,
NAVD88)
- INFERRED GROUNDWATER
ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

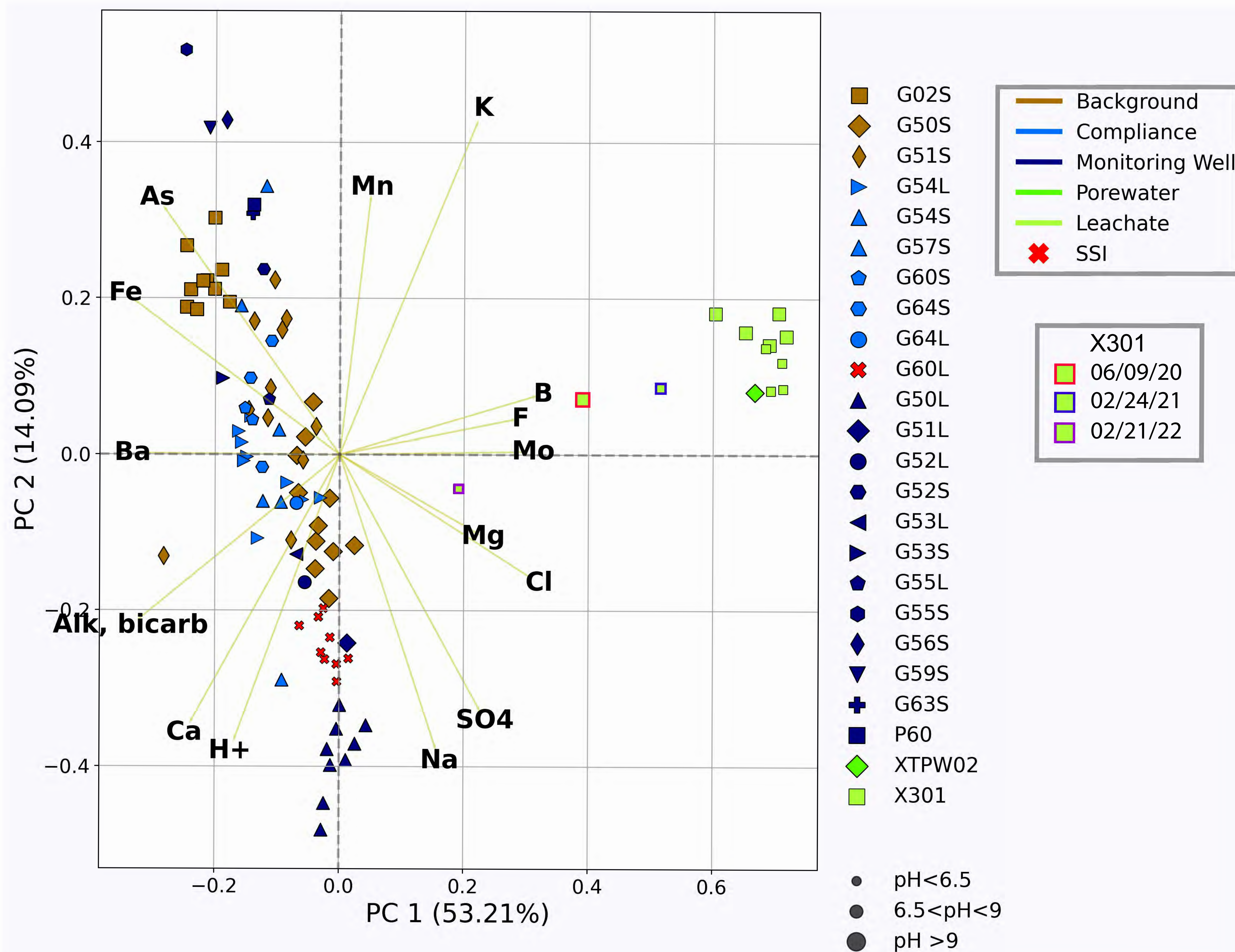
POTENTIOMETRIC SURFACE MAP
JANUARY 9 AND 16, 2023

ALTERNATE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

Attachment 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

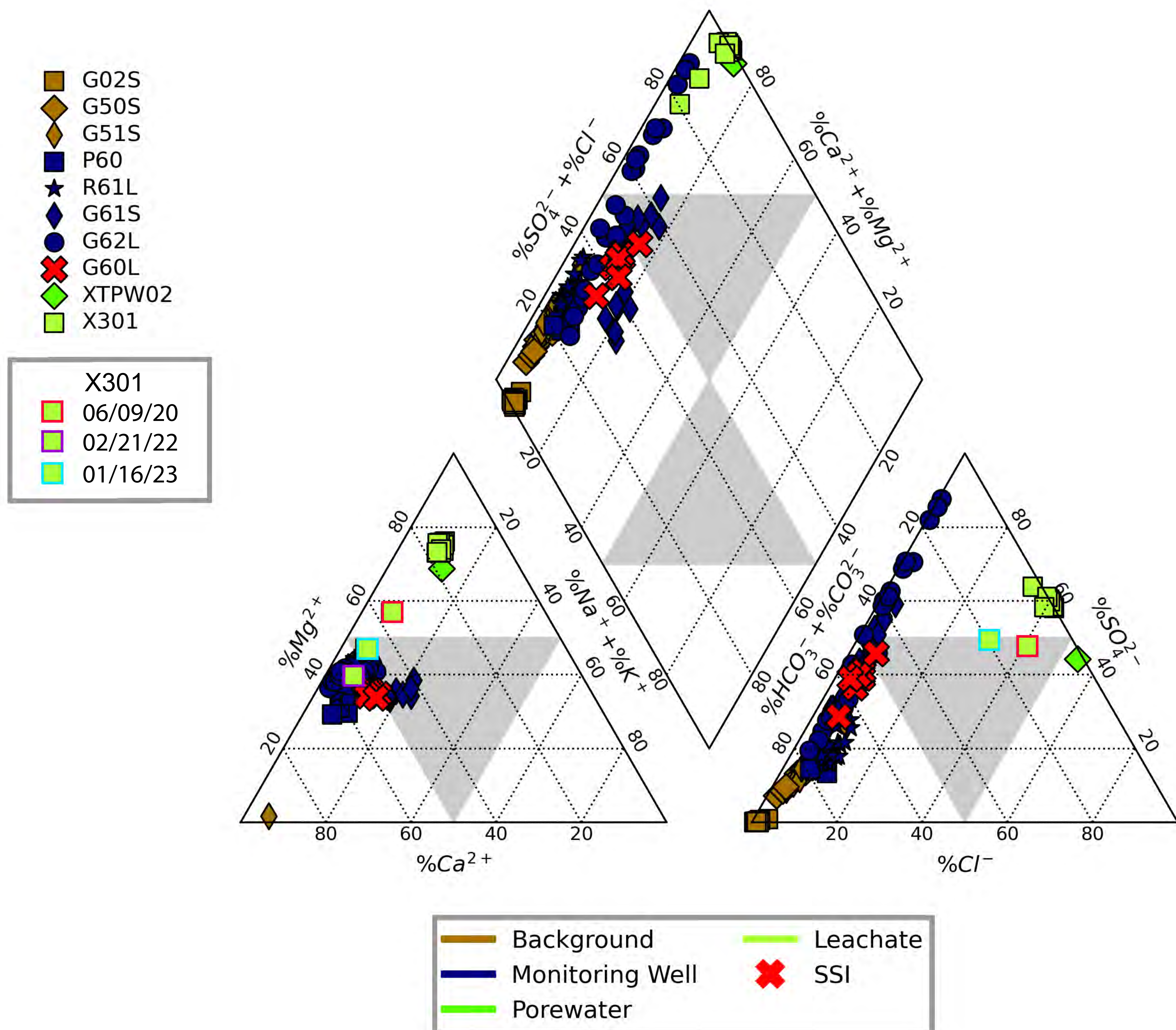




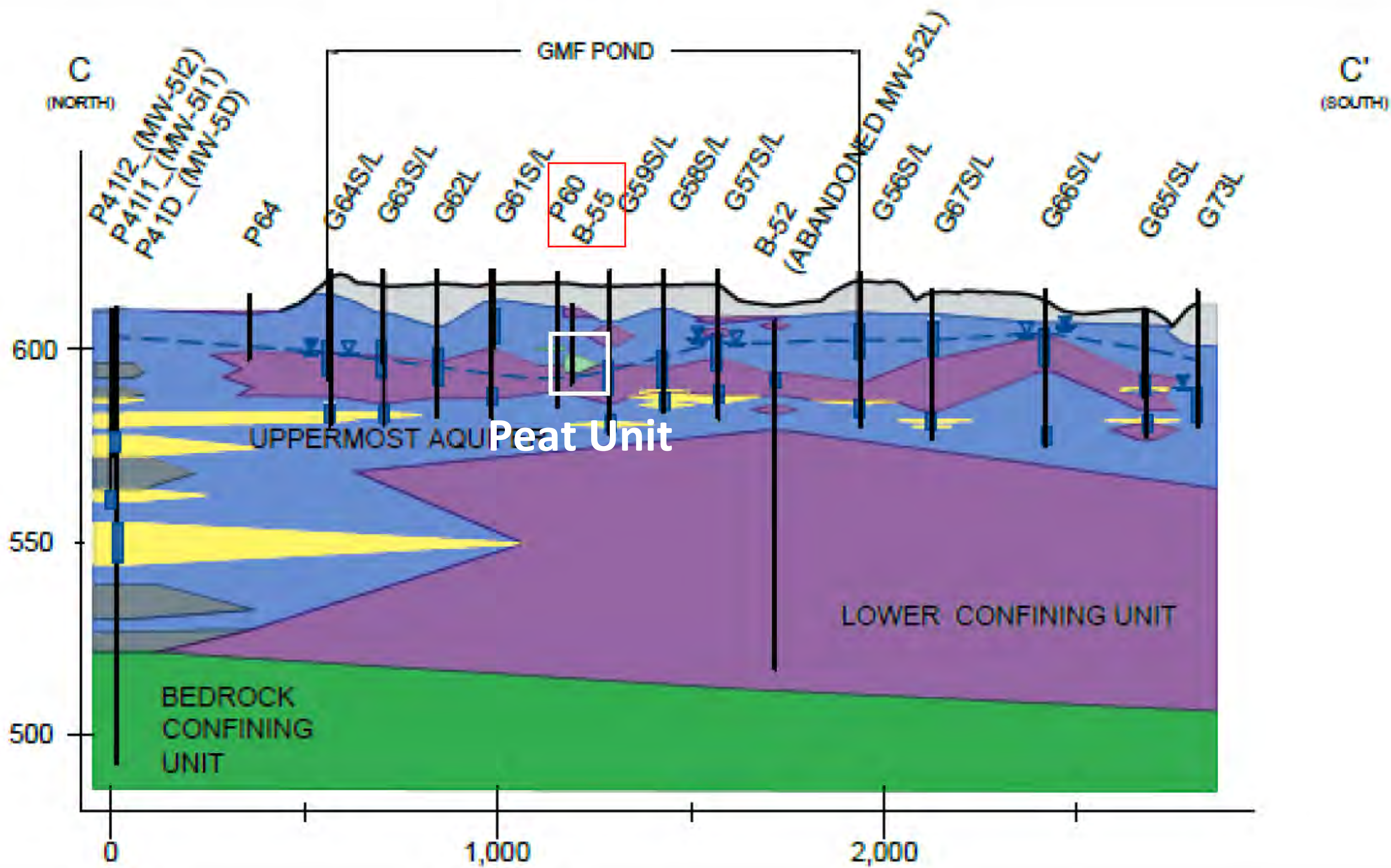
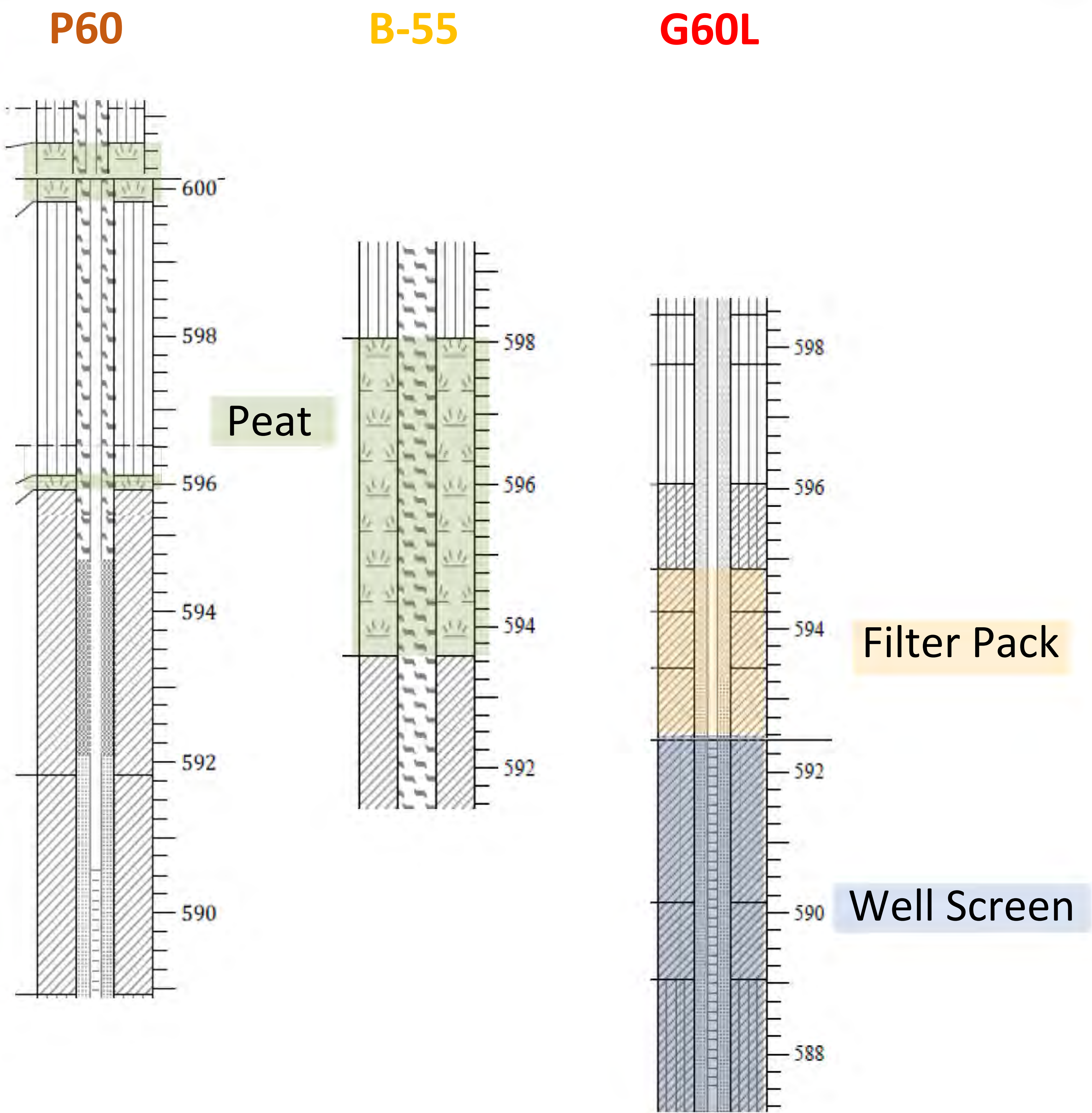
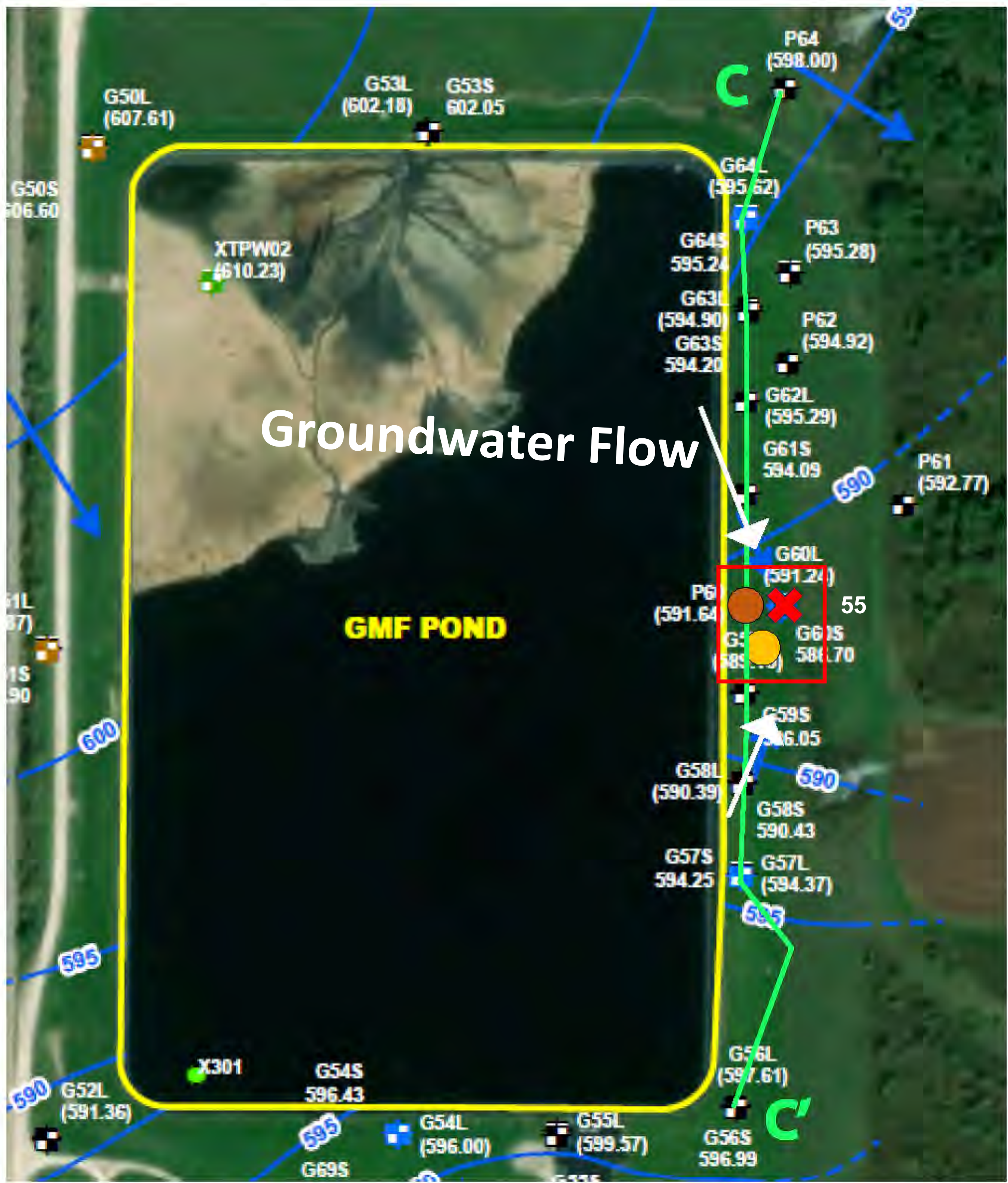
Principal Components Analysis (PCA) results for Duck Creek Gypsum Management Facility (GMF) Pond. Data is colored according to well classification and sized according to pH. See abbreviations list for complete analyte names.



Title Duck Creek Principal Components Analysis Results			
Project Name Duck Creek - GMFP ASD		Project Number [23RAM01-1] Vistra CCR	Attachment 2
Client Name Ramboll Americas Engineering Solutions, Inc.		Date 8/01/2023	



Piper diagram depicting major ion concentrations for background, leachate, and area around G60L. Total ion concentrations were used for all wells except P60, R61L, G61S, and G62L, which are a combination of dissolved and total ions. Dissolved ions used to improve analysis of local geochemistry near G60L.



Top) Peat unit relative to filter pack and well screen of G60L. Groundwater contours from January 2023. Boring logs modified from logs collected by Hanson. Groundwater map modified from Attachment 1. Bottom) Cross-section depicting local peat unit. Cross-section transect shown in top inset. All elevations in feet mean sea level. Cross-section modified from Ramboll, 2021.



LIFE CYCLE GEO

Title
Peat unit relative to G60L

Project Name
Duck Creek - GMFP ASD

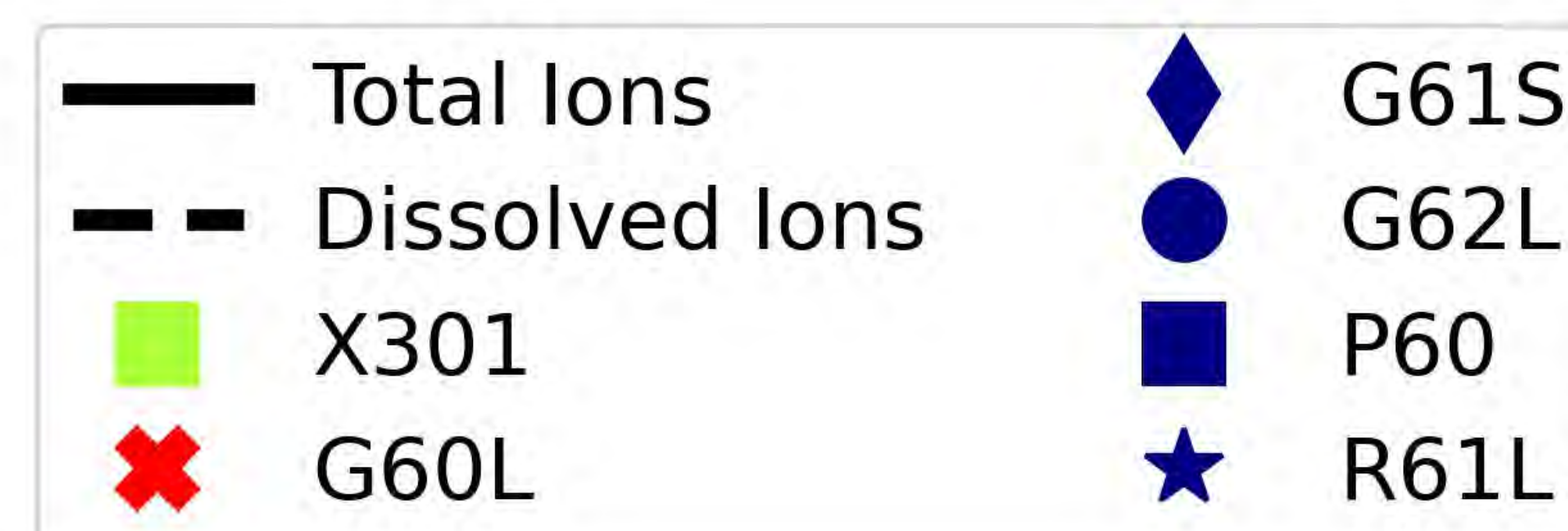
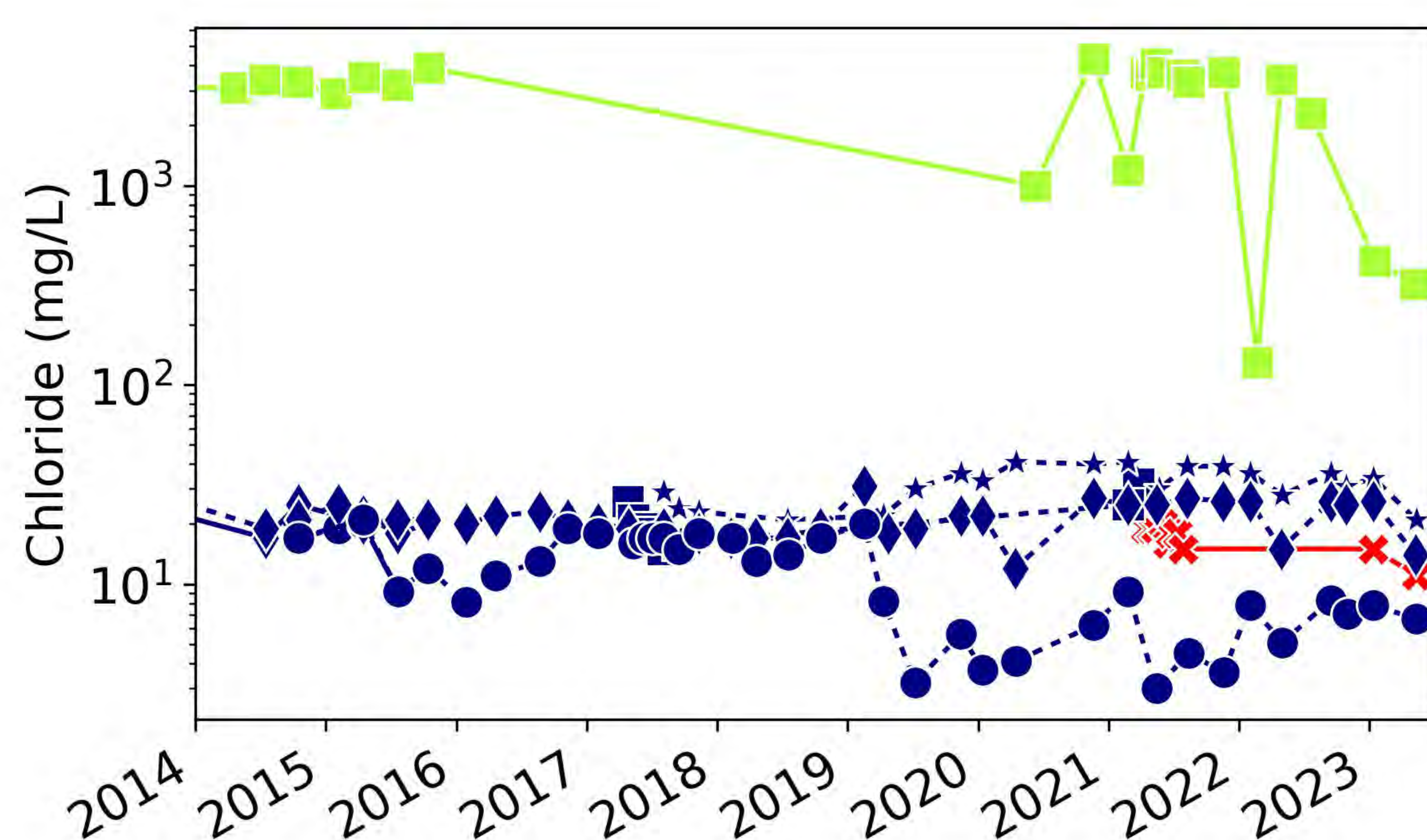
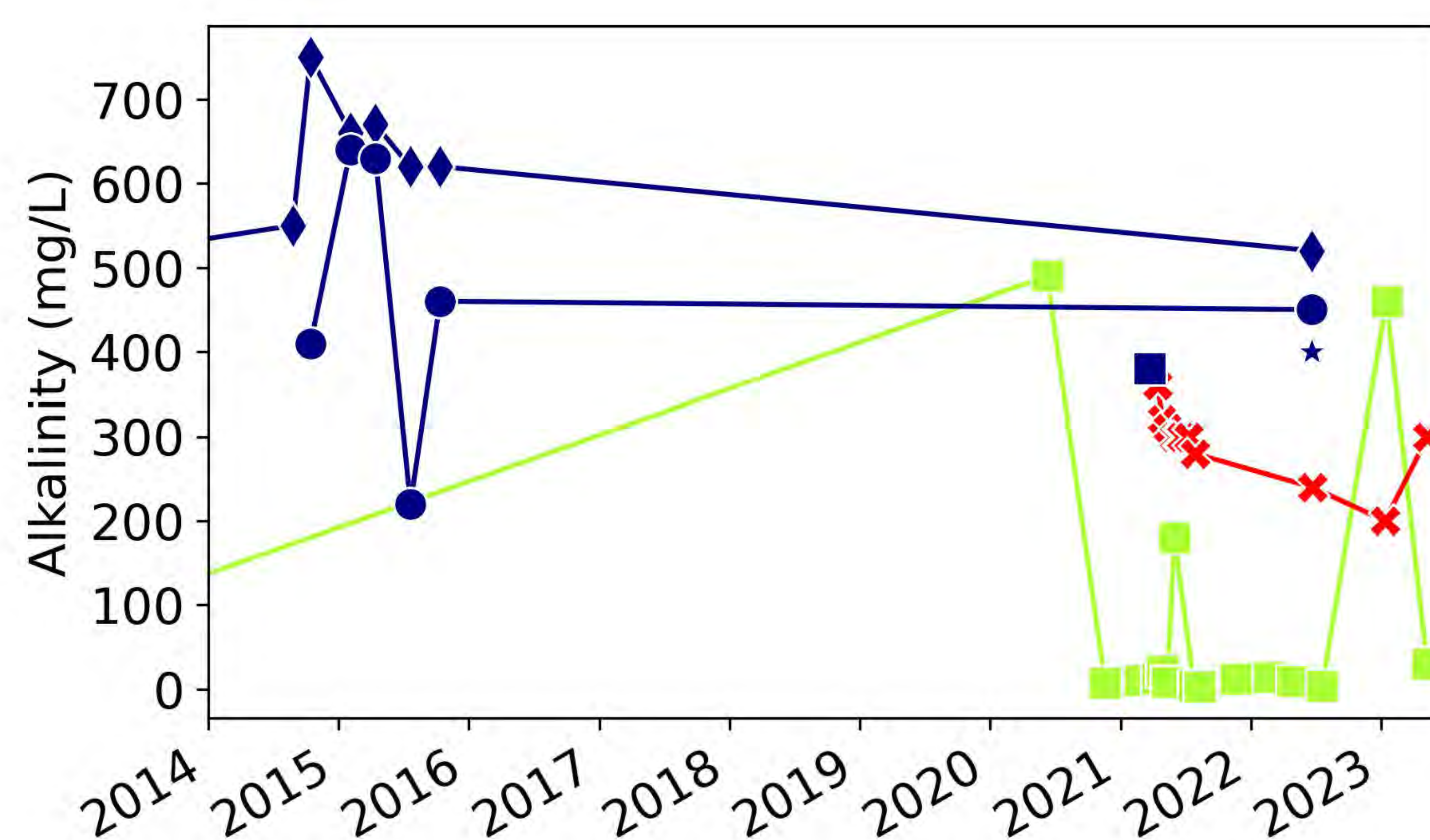
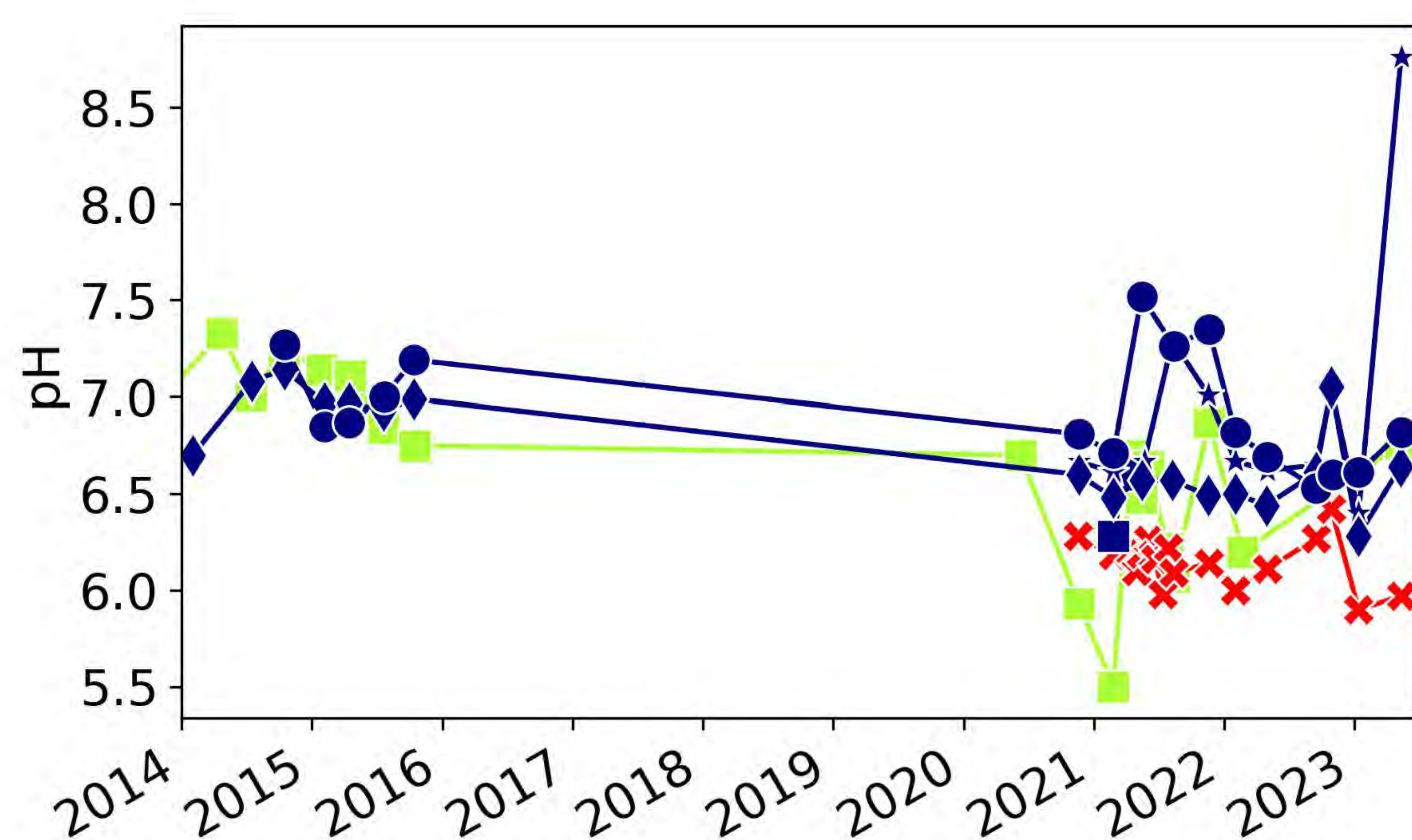
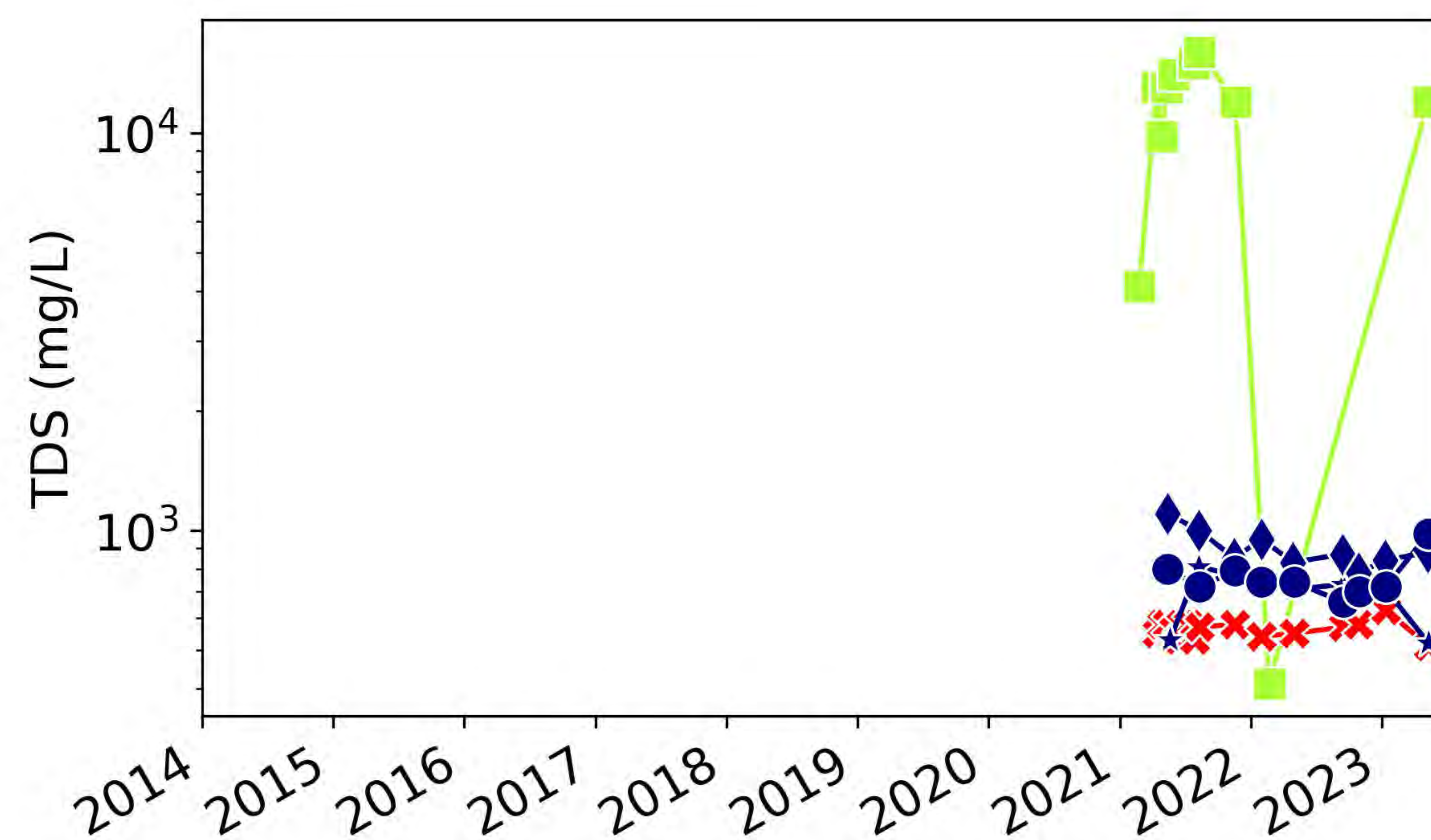
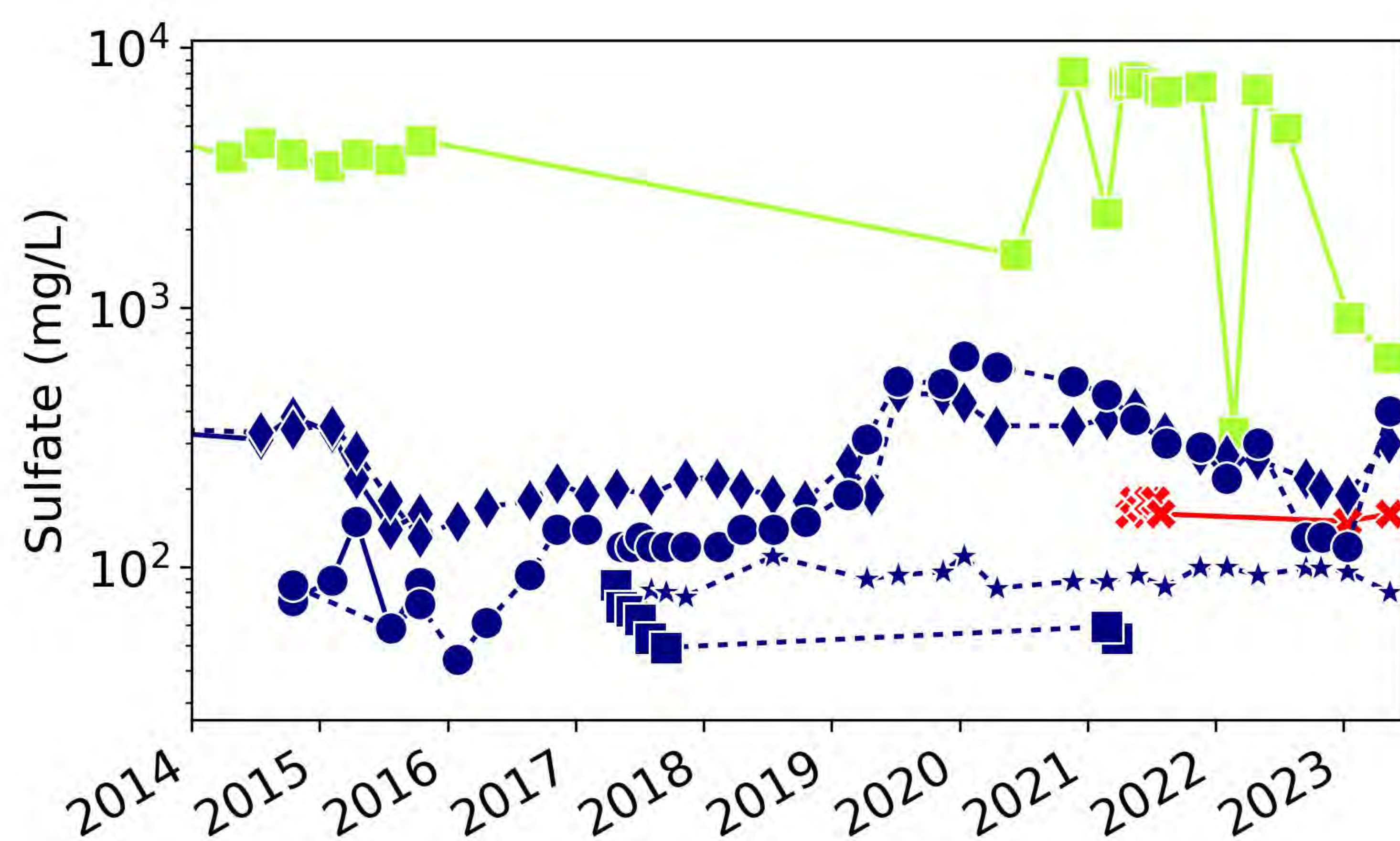
Client Name
Ramboll Americas Engineering Solutions, Inc.

Project Number
[23RAM01-1] Vistra CCR

Date
8/02/2023

Attachment

4



Time series depicting sulfate, TDS (total dissolved solids), pH, and alkalinity as bicarbonate concentrations for leachate, G60L, and wells adjacent to G60L. Concentrations for sulfate and TDS are plotted on a log scale.



Title
Geochemical Parameters Associated with Peat

Project Name
Duck Creek - GMFP ASD

Project Number
[23RAM01-1] Vistra CCR

Attachment

Client Name
Ramboll Americas Engineering Solutions, Inc.

Date
8/01/2023

5

Attachment 6. X-ray diffraction results at Duck Creek Gypsum Management Pond.

Mineral/Compound	B-G52S (wt %)	B-G54L (wt %)	B-G57L (wt %)	B-G57S (wt %)	B-G62L (wt %)	B-G53S (wt %)	B-G02S (wt %)	B-G02L (wt %)
Quartz	48.4	57.6	51.2	59.9	61.7	51.1	61.1	49.2
Hornblende	3.7	1.4	2.4	-	-	-	-	-
Gypsum	-	-	-	-	-	-	-	-
Dolomite	23.7	11.7	2.5	12.8	-	23.8	-	9.2
Calcite	6.7	0.8	0.1	0.3	-	4.1	-	-
Albite	6.7	8.1	17.4	8.2	8.6	5.5	9.9	12.2
Chlorite	0.8	0.3	0.3	0.2	0.4	2.4	5.4	6.0
Muscovite	3.3	13.8	8.8	11.7	18.7	6.7	15.4	12.3
Rhodochlorite	3.2	-	-	-	-	-	0.4	-
Microcline	2.9	5.5	9.4	5.9	10.7	5.7	7.5	9.3
Pyrite	0.4	-	0.3	-	-	-	-	0.3
Halite	-	0.7	-	-	-	-	-	-
Montmorillonite	-	-	5.1	-	-	-	-	-
Goethite	-	-	1.1	-	-	-	-	-
Diaspore	-	-	0.3	-	-	-	-	-
Magnetite	-	-	0.4	-	-	-	-	0.4
Diopside	-	-	1.0	0.5	-	-	0.2	1.0
Actinolite	-	-	-	0.5	-	0.6	0.2	0.3

wt % - weight percent; bolded - carbonate minerals, buffers of groundwater pH

Attachment 7. Calcium sequential extraction (SEP) results at Duck Creek Gypsum Management Pond.

Calcium (mg/kg)		
Sample ID	¹ Step 2: Carbonate Phase	² Sum: Steps 1-7
B-G52S	18,000	90,000
B-G54L	2,300	23,000
B-G57L	730	11,000
B-G57S	3,600	39,000
B-G62L	600	3,200
B-G53S	13,000	80,000
B-G02S	210	4,900
B-G02L	2,400	24,000

¹ Step 2 represents the carbonate phase in the tested material.

² The sum of all seven SEP steps shows how much calcium was produced throughout testing.