



Illinois Power Resources Generating, LLC
1500 Eastport Plaza Dr.
Collinsville, IL 62234

January 30, 2024

Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Re: Duck Creek Ash Pond No. 1 and No. 2 (IEPA ID: W0578010001-01, 02) 2023 Annual Consolidated Report

Dear Mr. LeCrone:

In accordance with 35 IAC § 845.550, Illinois Power Resources Generating, LLC (IPRG) is submitting the annual consolidated report for the Duck Creek Ash Pond No. 1 and No.2 (IEPA ID: W0578010001-01, 02), as enclosed.

Sincerely,

A handwritten signature in blue ink that reads 'Dianna Tickner'.

Dianna Tickner
Sr. Director Decommissioning & Demolition

Enclosures

Annual Consolidated Report
Illinois Power Resources Generating, LLC
Duck Creek Power Plant
Ash Pond No. 1 and No. 2; IEPA ID: **W0578010001-01, 02**

In accordance with 35 IAC § 845.550, Illinois Power Resources Generating, LLC (IPRG) has prepared the annual consolidated report. The report is provided in two sections as follows:

Section 1

1) Annual CCR fugitive dust control report (Section 845.500(c))

Section 2

2) Annual inspection report (Section 845.540(b)), including:

- A) Annual hazard potential classification certification
- B) Annual structural stability assessment certification
- C) Annual safety factor assessment certification
- D) Inflow design flood control system plan certification

Section 3

3) Annual Groundwater Monitoring and Corrective Action Report (Section 845.610(e))

Section 1

Annual CCR Fugitive Dust Control Report

Annual CCR Fugitive Dust Control Report for Duck Creek Power Plant

Prepared for:



Illinois Power Resources Generating, LLC

**Duck Creek Power Plant
17751 North Cilco Road
Canton, IL 61520**

December 2023

**Duck Creek Power Plant
ANNUAL CCR FUGITIVE DUST CONTROL REPORT**

Reporting Year: 4th Quarter 2022 through 3rd Quarter 2023

Approved by: 

Sr. Director, Decommissioning & Demolition

Name

Title

This Annual CCR Fugitive Dust Control Report has been prepared for the Duck Creek Power Plant in accordance with 40 CFR 257.80(c) and 35 I.A.C. 845.500. Section 1 provides a description of the actions taken to control CCR fugitive dust at the facility during the reporting year, including a summary of any corrective measures taken. Section 2 provides a record of citizen complaints received concerning CCR fugitive dust at the facility during the reporting year, including a summary of any corrective measures taken.

Section 1 Actions Taken to Control CCR Fugitive Dust

In accordance with the Duck Creek Power Plant CCR Fugitive Dust Control Plan (Plan), the following measures were used to control CCR fugitive dust from becoming airborne at the facility during the reporting year:

CCR Activity	Actions Taken to Control CCR Fugitive Dust
Management of CCR in the facility's CCR units	CCR to be emplaced in the landfill is conditioned before emplacement.
	Cover exposed dry CCR in the landfill.
	Wet management of CCR bottom ash and flue gas desulfurization materials in CCR surface impoundments.
	Water areas of exposed CCR in CCR units, as necessary.
	Naturally occurring grass vegetation in areas of exposed CCR in CCR surface impoundments.
	Apply chemical dust suppressant on areas of exposed CCR in CCR units, as necessary.
Handling of CCR at the facility	Wet sluice CCR bottom ash and flue gas desulfurization materials to CCR surface impoundments.
	CCR bottom ash removed from CCR surface impoundments and loaded into trucks for transport remains conditioned during handling.
	Pneumatically convey dry CCR fly ash to storage silos in an enclosed system.

**Duck Creek Power Plant
ANNUAL CCR FUGITIVE DUST CONTROL REPORT**

CCR Activity	Actions Taken to Control CCR Fugitive Dust
Handling of CCR at the facility	CCR to be emplaced in the landfill is conditioned before emplacement.
	Load CCR transport trucks from the CCR fly ash silos in a partially enclosed area.
	Load CCR transport trucks from the CCR fly ash silos using a telescoping chute.
	Maintain and operate the bin vent filters on each CCR fly ash silo as needed during fly ash loadout.
	Perform housekeeping, as necessary, in the fly ash loading area.
	Operate fly ash handling system in accordance with good operating practices.
	Maintain and repair as necessary dust controls on the fly ash handling system.
Transportation of CCR at the facility	CCR from the CCR fly ash silos to be emplaced in the landfill is conditioned before emplacement.
	Cover or enclose trucks used to transport CCR fly ash.
	Limit the speed of vehicles to no more than 15 mph on facility roads.
	Cover or enclose trucks used to transport CCR other than fly ash, as necessary.
	Sweep or rinse off the outside of the trucks transporting CCR, as necessary.
	Remove CCR, as necessary, deposited on facility road surfaces during transport.

Based on a review of the Plan and inspections associated with CCR fugitive dust control performed in the reporting year, the control measures identified in the Plan as implemented at the facility effectively minimized CCR from becoming airborne at the facility. No revisions or additions to control measures identified in the Plan were needed.

The Illinois Environmental Protection Agency rule 35 IAC 212.314 does not require fugitive dust controls when the wind speed is greater than 25 mph.

No material changes occurred in the reporting year in site conditions potentially resulting in CCR fugitive dust becoming airborne at the facility that warrant an amendment of the Plan.

Duck Creek ceased operation in December of 2019. Not all the CCR activities that are listed in the table occurred after the plant was permanently shut down. For the activities that did occur, the actions taken to control CCR Fugitive Dust that are listed in the table were followed and were adequate to effectively minimize fugitive dust.

**Duck Creek Power Plant
ANNUAL CCR FUGITIVE DUST CONTROL REPORT**

Section 2 Record of Citizen Complaints

No citizen complaints were received regarding CCR fugitive dust at Duck Creek Power Plant in the reporting year.

Section 2

Annual inspection report (Section 845.540(b)), including:

- A) Annual hazard potential classification certification, if applicable (Section 845.440)
- B) Annual structural stability assessment certification, if applicable (Section 845.450)
- C) Annual safety factor assessment certification, if applicable (Section 845.460)
- D) Inflow design flood control system plan certification (Section 845.510(c))

ANNUAL INSPECTION BY A QUALIFIED PROFESSIONAL ENGINEER

35 IAC § 845.540

(b)(1) The CCR surface impoundment must be inspected on an annual basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted engineering standards. The inspection must, at a minimum, include:

A) A review of available information regarding the status and condition of the CCR surface impoundment, including files available in the operating record (e.g., CCR surface impoundment design and construction information required by Sections 845.220(a)(1) and 845.230(d)(2)(A), previous structural stability assessments required under Section 845.450, the results of inspections by a qualified person, and results of previous annual inspections);

B) A visual inspection of the CCR surface impoundment to identify signs of distress or malfunction of the CCR surface impoundment and appurtenant structures;

C) A visual inspection of any hydraulic structures underlying the base of the CCR surface impoundment or passing through the dike of the CCR surface impoundment for structural integrity and continued safe and reliable operation;

D) The annual hazard potential classification certification, if applicable (see Section 845.440);

E) The annual structural stability assessment certification, if applicable (see Section 845.450);

F) The annual safety factor assessment certification, if applicable (see Section 845.460); and

G) The inflow design flood control system plan certification (see Section 845.510(c)).

SITE INFORMATION

Site Name / Address / Date of Inspection	Duck Creek Power Station Fulton County, Illinois 61520 10/4/2023
Operator Name / Address	Luminant Generation Company LLC 6555 Sierra Drive, Irving, TX 75039
CCR unit	Ash Pond No. 1

INSPECTION REPORT 35 IAC § 845.540

(b)(1)(D) The annual hazard potential classification certification, if applicable (see Section 845.440).	Based on a review of the CCR unit's annual hazard potential classification, the unit is classified as a Class II CCR surface impoundment.
(b)(2)(A) Any changes in geometry of the structure since the previous annual inspection.	Cap and closure of Ash Pond No. 1 completed.
(b)(2)(B) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection	See the attached.
b)(2)(C) The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection;	See the attached.
b)(2)(D) The storage capacity of the impounding structure at the time of the inspection	Cap and closure of Ash Pond No. 1 completed.
(b)(2)(E) The approximate volume of the impounded water and CCR contained in the unit at the time of the inspection.	Approximately 2500 acre-feet of CCR material capped and closed.
(b)(2)(F) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit	Based on a review of the CCR unit's records and visual observation during the on-site inspection, there was no appearance of an actual or potential structural weakness of the CCR unit, nor an existing condition that is disrupting or would disrupt the operation and safety of the unit.

INSPECTION REPORT 35 IAC § 845.540

(b)(2)(G) Any other changes that may have affected the stability or operation of the impounding structure since the previous annual inspection.	Based on a review of the CCR unit's records and visual observation during the on-site inspection, no other changes which may have affected the stability or operation of the CCR unit have taken place since the previous annual inspection.
(b)(1)(G) The inflow design flood control system plan certification (see Section 845.510(c))	Based on a review of the CCR unit's records, the CCR unit is designed, operated, and maintained to adequately manage the flow from the CCR impoundment and control the peak discharge from the inflow design flood.

35 IAC § 845.540 - Annual inspection by a qualified professional engineer.

I, James Knutelski, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information submitted, is to the best of my knowledge and belief, true, accurate and complete. Based on the annual inspection, the design, construction, operation, and maintenance of the CCR Unit is consistent with recognized and generally accepted good engineering standards. Based on a review of the records for the CCR unit and a visual inspection of the unit to document no material changes to the unit, the hazard potential classification was conducted in accordance with the requirements of Section 845.440, the structural stability assessment was conducted in accordance with the requirements of Section 845.450, the safety factor assessment was conducted in accordance with the requirements of Section 845.460, and the inflow design flood control system plan assessment was conducted in accordance with the requirements of Section 845.510.



James Knutelski, PE

Illinois PE No. 062-054206, Expires: 11/30/2025

Date: 01/07/2024

Site Name: Duck Creek Power Station

CCR Unit: Ash Pond No. 1

35 IAC § 845.540 (b)(2)(B)		
Instrument ID #	Type	Maximum recorded reading since previous annual inspection (ft)
PZ1	Piezometer	abandoned
B5	Piezometer	abandoned

35 IAC § 845.540 (b)(2)(C)						
	Approximate Depth / Elevation					
Since previous inspection:	Elevation (ft)			Depth (ft)		
	Minimum	Present	Maximum	Minimum	Present	Maximum
Impounded Water		0			0	
CCR	622		655	52		85

ANNUAL INSPECTION BY A QUALIFIED PROFESSIONAL ENGINEER

35 IAC § 845.540

(b)(1) The CCR surface impoundment must be inspected on an annual basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted engineering standards. The inspection must, at a minimum, include:

- A) A review of available information regarding the status and condition of the CCR surface impoundment, including files available in the operating record (e.g., CCR surface impoundment design and construction information required by Sections 845.220(a)(1) and 845.230(d)(2)(A), previous structural stability assessments required under Section 845.450, the results of inspections by a qualified person, and results of previous annual inspections);
- B) A visual inspection of the CCR surface impoundment to identify signs of distress or malfunction of the CCR surface impoundment and appurtenant structures;
- C) A visual inspection of any hydraulic structures underlying the base of the CCR surface impoundment or passing through the dike of the CCR surface impoundment for structural integrity and continued safe and reliable operation;
- D) The annual hazard potential classification certification, if applicable (see Section 845.440);
- E) The annual structural stability assessment certification, if applicable (see Section 845.450);
- F) The annual safety factor assessment certification, if applicable (see Section 845.460); and
- G) The inflow design flood control system plan certification (see Section 845.510(c)).

SITE INFORMATION

Site Name / Address / Date of Inspection	Duck Creek Power Station Fulton County, Illinois 61520 10/4/2023
Operator Name / Address	Luminant Generation Company LLC 6555 Sierra Drive, Irving, TX 75039
CCR unit	Ash Pond No. 2

INSPECTION REPORT 35 IAC § 845.540

(b)(1)(D) The annual hazard potential classification certification, if applicable (see Section 845.440).	Based on a review of the CCR unit's annual hazard potential classification, the unit is classified as a Class II CCR surface impoundment.
(b)(2)(A) Any changes in geometry of the structure since the previous annual inspection.	Cap and Closure activities substantially completed at time of inspection.
(b)(2)(B) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection	See the attached.
b)(2)(C) The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection;	See the attached.
b)(2)(D) The storage capacity of the impounding structure at the time of the inspection	Cap and closure substantially completed at time of inspection.
(b)(2)(E) The approximate volume of the impounded water and CCR contained in the unit at the time of the inspection.	Approximately 3750 acre-feet of CCR capped and closed.
(b)(2)(F) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit	Based on a review of the CCR unit's records and visual observation during the on-site inspection, there was no appearance of an actual or potential structural weakness of the CCR unit, nor an existing condition that is disrupting or would disrupt the operation and safety of the unit.

INSPECTION REPORT 35 IAC § 845.540

(b)(2)(G) Any other changes that may have affected the stability or operation of the impounding structure since the previous annual inspection.

Based on a review of the CCR unit's records and visual observation during the on-site inspection, no other changes which may have affected the stability or operation of the CCR unit have taken place since the previous annual inspection.

(b)(1)(G) The inflow design flood control system plan certification (see Section 845.510(c))

Based on a review of the CCR unit's records, the CCR unit is designed, operated, and maintained to adequately manage the flow from the CCR impoundment and control the peak discharge from the inflow design flood.

35 IAC § 845.540 - Annual inspection by a qualified professional engineer.

I, James Knutelski, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information submitted, is to the best of my knowledge and belief, true, accurate and complete. Based on the annual inspection, the design, construction, operation, and maintenance of the CCR Unit is consistent with recognized and generally accepted good engineering standards. Based on a review of the records for the CCR unit and a visual inspection of the unit to document no material changes to the unit, the hazard potential classification was conducted in accordance with the requirements of Section 845.440, the structural stability assessment was conducted in accordance with the requirements of Section 845.450, the safety factor assessment was conducted in accordance with the requirements of Section 845.460, and the inflow design flood control system plan assessment was conducted in accordance with the requirements of Section 845.510.



James Knutelski, PE

Illinois PE No. 062-054206, Expires: 11/30/2025

Date: 01/07/2024

Site Name: Duck Creek Power Station

CCR Unit: Ash Pond No. 2

35 IAC § 845.540 (b)(2)(B)

Instrument ID #	Type	Maximum recorded reading since previous annual inspection (ft)
OM31	Piezometer	abandoned
PZ2	Piezometer	abandoned

35 IAC § 845.540 (b)(2)(C)

	Approximate Depth / Elevation					
Since previous inspection:	Elevation (ft)			Depth (ft)		
	Minimum	Present	Maximum	Minimum	Present	Maximum
Impounded Water		0			0	
CCR	628		635	58		65

Section 3

Annual Groundwater Monitoring and Corrective Action Report (Section 845.610(e))

Prepared for
Illinois Power Resources Generating, LLC

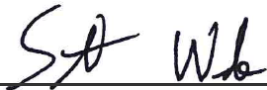
Date
January 31, 2024

Project No.
1940103649-006

**2023 35 I.A.C. § 845 ANNUAL
GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
ASH POND NO. 1 AND ASH POND NO. 2
DUCK CREEK POWER PLANT
CANTON, ILLINOIS
IEPA ID NO. W0578010001-01 AND
W0578010001-02**

**2023 35 I.A.C. § 845 ANNUAL GROUNDWATER
MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT ASH POND NO. 1 AND ASH
POND NO. 2**

Project name	Duck Creek Power Plant Ash Pond No. 1 and Ash Pond No. 2
Project no.	1940103649-006
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	Brian G. Hennings, PG
Description	Annual Report required by 35 I.A.C. § 845



Scott S. Woods
Hydrogeologist



Brian G. Hennings, PG
Project Officer, Hydrogeology

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TABLES (IN TEXT)

Table A 35 I.A.C. § 845 Monitoring Program Summary for 2023

TABLES (ATTACHED)

Table 1 Field Parameters and Analytical Results – Quarter 1, 2023
Field Parameters and Analytical Results – Quarter 2, 2023
Field Parameters and Analytical Results – Quarter 3, 2023
Field Parameters and Analytical Results – Quarter 4, 2023

FIGURES (ATTACHED)

Figure 1 Monitoring Well Location Map

ATTACHMENTS

Attachment A Groundwater Elevation Data
Attachment B Laboratory Analytical Reports and Field Data Sheets

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
AP1/AP2	Ash Pond No. 1 and Ash Pond No. 2
CCA	compliance commitment agreement
CCR	coal combustion residuals
CMA	assessment of corrective measures
DCPP	Duck Creek Power Plant
GWPS	groundwater protection standard
ID	identification
IEPA	Illinois Environmental Protection Agency
IPRG	Illinois Power Resources Generating, LLC
NID	National Inventory of Dams
No.	number
R1	first round of sampling to establish background
R2	second round of sampling to establish background
R3	third round of sampling to establish background
R4	fourth round of sampling to establish background
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SI	surface impoundment
SSI	statistically significant increase

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845.610(e) (*Annual Groundwater Monitoring and Corrective Action Report*) for Ash Pond No. 1 and Ash Pond No. 2 (AP1/AP2) located at Duck Creek Power Plant (DCPP) near Canton, Illinois. AP1/AP2 is recognized by coal combustion residuals (CCR) unit identification (ID) number (No.) 201/202, Illinois Environmental Protection Agency (IEPA) ID No. W0578010001-01 and W0578010001-02, and National Inventory of Dams (NID) No. IL50715 and IL50014.

AP1 and AP2 were closed in accordance with the Closure and Post Closure Care Plan submitted to IEPA on September 15, 2016. IEPA approved the Closure and Post-Closure Care Plan and Ground Water Management Zone in a letter date November 23, 2016. Closure of AP1/AP2 was completed on December 22, 2020.

As required by 35 I.A.C. § 845, an operating permit application for AP1/AP2 was submitted by Illinois Power Resources Generating, LLC (IPRG) to IEPA by October 31, 2021 in accordance with the requirements specified in 35 I.A.C. § 845.230(d) and is pending approval. IPRG entered into a compliance commitment agreement (CCA) with IEPA on December 28, 2022. After AP1/AP2 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit. Quarterly groundwater monitoring for the constituents listed in 35 I.A.C. § 845.600 was initiated in the first Quarter of 2023 in accordance with the CCA. A total of eight rounds of samples will be collected and analyzed to establish background for inclusion in the proposed groundwater monitoring plan in accordance with CCA section 5(e). Quarterly groundwater samples were collected from the existing monitoring system monitoring wells. All available groundwater monitoring data collected in 2023 are summarized in **Table 1**¹ and groundwater elevation data are provided in **Attachment A**.

This report summarizes the information collected in 2023 for AP1/AP2, and includes the following:

- A map showing the CCR SI and all proposed background (or upgradient) and downgradient monitoring wells, including their identification numbers, that are part of the proposed groundwater monitoring program for AP1/AP2 (**Figure 1**).
- In addition to all the monitoring data obtained under 35 I.A.C. §§ 845.600-680, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, and the dates the samples were collected (**Section 3 and Table A**).
- A table summarizing the quarterly analytical data and field parameters collected during 2023 (**Table 1**), groundwater elevation data (**Attachment A**), and the laboratory analytical reports and field data sheets (**Attachment B**).

¹ Analytical data received after December 31, 2023 will be reported in an addendum to the Annual Groundwater Monitoring and Corrective Action Report.

Until eight rounds of groundwater samples have been collected, statistically derived values for constituent concentrations observed at compliance monitoring wells will not be determined for comparison with the groundwater protection standards (GWPSs) or for statistical exceedances over background levels.

1. INTRODUCTION

This report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of IPRG, to provide the information required by 35 I.A.C. § 845.610(e) for AP1/AP2 located at DCPD near Canton, Illinois. The owner or operator of a CCR SI must prepare and submit to IEPA by January 31st of each year an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year as part of the Annual Consolidated Report required by 35 I.A.C. § 845.550. The Annual Groundwater Monitoring and Corrective Action Report shall document the status of the groundwater monitoring and corrective action plan for the CCR SI (**Section 2**), summarize key actions completed, including the status of permit applications and Agency approvals (**Section 3**), describe any problems encountered and actions to resolve the problems (**Section 4**), and project key activities for the upcoming year (**Section 5**).

At a minimum, the annual report must contain the following information, to the extent available:

- A. A map, aerial image, or diagram showing the CCR SI and all background (or upgradient) and [downgradient] compliance monitoring wells, including the well identification numbers, that are part of the proposed groundwater monitoring system for the CCR SI, and a visual delineation of any exceedances of the [groundwater protection standard] GWPS.
- B. 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.
- C. A potentiometric surface map for each groundwater elevation sampling event required by 35 I.A.C. § 845.650(b)(2).
- D. In addition to all the monitoring data obtained under 35 I.A.C. §§ 845.600-680, a summary including the number of groundwater samples that were collected for analysis for each background and [downgradient] compliance well, and the dates the samples were collected (**Section 3** and **Table A**).
- E. A narrative discussion of any statistically significant increases (SSIs) over background levels for the constituents listed in 35 I.A.C. § 845.600.
- F. Other information required to be included in the annual report as specified in 35 I.A.C. §§ 845.600-680.

A section at the beginning of the annual report that provides an overview of the current status of the groundwater monitoring program and corrective action plan for the CCR SI (see **Executive Summary**). At a minimum, the summary must:

- A. Specify whether groundwater monitoring data shows an SSI over background concentrations for one or more constituents listed in 35 I.A.C. § 845.600.
- B. Identify those constituents having an SSI over background concentrations and the names of the monitoring wells associated with the SSI(s).
- C. Specify whether there have been any exceedances of the GWPS for one or more constituents listed in 35 I.A.C. § 845.600.
- D. Identify those constituents with exceedances of the GWPS in 35 I.A.C. § 845.600 and the names of the monitoring wells associated with the exceedance.

- E. Provide the date when the assessment of corrective measures was initiated for the CCR SI.
- F. Provide the date when the assessment of corrective measures was completed for the CCR SI.
- G. Specify whether a remedy was selected under 35 I.A.C. § 845.670 during the current annual reporting period, and if so, the date of remedy selection.
- H. Specify whether remedial activities were initiated or are ongoing under 35 I.A.C. § 845.780 during the current annual reporting period.

This report summarizes the information collected in 2023 for AP1/AP2, and includes the following:

- A map showing the CCR SI and all proposed background (or upgradient) and downgradient monitoring wells, including their identification numbers, that are part of the proposed groundwater monitoring program for AP1/AP2 (**Figure 1**).
- In addition to all the monitoring data obtained under 35 I.A.C. §§ 845.600-680, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, and the dates the samples were collected (**Section 3 and Table A**).
- A table summarizing the quarterly analytical data and field parameters collected during 2023 (**Table 1**), groundwater elevation data (**Attachment A**), and the laboratory analytical reports and field data sheets (**Attachment B**).

Until eight rounds of groundwater samples have been collected, statistically derived values for constituent concentrations observed at compliance monitoring wells will not be determined for comparison with the groundwater protection standards (GWPSs) or for statistical exceedances over background levels.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

An operating permit application for AP1/AP2 was submitted by IPRG to IEPA by October 31, 2021 in accordance with the requirements specified in 35 I.A.C. § 845.230(d) and is pending approval. IPRG entered into a CCA with IEPA on December 28, 2022. Groundwater monitoring in accordance with the proposed groundwater monitoring plan and sampling methodologies provided in the operating permit application for AP1/AP2 commenced in the first quarter of 2023. After AP1/AP2 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit. As specified in the CCA, groundwater sampling requirements that apply to the CCR SI under other existing permit programs will become void upon issuance of an approved operating permit pursuant to 35 I.A.C § 845. In addition, and in accordance with the CCA, once groundwater monitoring commences, the groundwater monitoring performed under Section 1.5 of the approved Closure and Post-Closure Care Plan will cease.

A total of eight rounds of samples will be collected and analyzed to establish background for inclusion in the proposed groundwater monitoring plan in accordance with CCA section 5(e). Until eight rounds of groundwater samples have been collected, statistically derived values for constituent concentrations observed at compliance monitoring wells will not be determined for comparison with the groundwater protection standards (GWPSs) or for statistical exceedances over background levels.

3. KEY ACTIONS COMPLETED IN 2023

The proposed 35 I.A.C. § 845 monitoring system is presented in **Figure 1**. No wells were installed or decommissioned in 2023. Groundwater monitoring activities as required by other State and Federal programs are summarized in the addendum to the groundwater monitoring plan (Ramboll, 2021).

Monitoring well inspections and redevelopment of the proposed monitoring system monitoring wells that were not sampled in 2022 were completed after initiating groundwater monitoring in the first quarter of 2023. Pressure transducers equipped with data loggers were deployed in the proposed monitoring system wells for measurement of monthly water level elevations as required by 35 I.A.C. § 845.650(b)(2). In 2023, quarterly water level elevations were collected.

Attachment A summarizes the groundwater elevation data collected in 2023.

The initial eight rounds of groundwater monitoring were initiated in the first quarter of 2023. A summary of the samples collected from background and compliance monitoring wells in 2023 is included in **Table A** below. **Table 1** is a summary of the field parameters and analytical results from the 2023 sampling events. Laboratory analytical reports and field data sheets are included in **Attachment B**.

Table A. 35 I.A.C. § 845 Monitoring Program Summary for 2023

Event ID	Sampling Dates ^{1, 2, 3}	Analytical Data Receipt Date
R1	January 9-13, 2023	April 10, 2023
R2	May 8-17, 2023	July 14, 2023
R3	July 17-31, 2023	October 24, 2023
R4	October 17-27, 2023	January 17, 2024

Notes:

TBD: to be determined in 2024

¹ All samples were analyzed for the parameters listed in 35 I.A.C. § 845.600, calcium, and turbidity.

² The following background wells were sampled for each event: BA06, OM16, and OM17

³ The following compliance wells were sampled for each event: OM01, OM04S, OM07, OM12, OM21, OM22D, OM23D, OM24D, OM25S, OR02, OR03D, OR04D, OR06A, OR11, OR13D, OR13S, OR14D, OR19, and OR20

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

Groundwater monitoring commenced in the first quarter of 2023. Groundwater samples were collected in accordance with the proposed groundwater monitoring plan using sampling methodologies provided in the operating permit application for AP1/AP2. After AP1/AP2 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit.

Due to malfunctioning pressure transducers, data gaps exist in monthly water level elevations prior to the fourth quarter. Depth to water measurements were collected manually in the fourth quarter. Pressure transducers were refurbished and were redeployed in December 2023 and January 2024.

5. KEY ACTIVITIES PLANNED FOR 2024

The following key activities are planned for 2024:

- Continue collecting the initial eight rounds of groundwater samples from the AP1/AP2 proposed monitoring system for the full list of parameters in 35 I.A.C. § 845.600.
- After AP1/AP2 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit. As specified in the CCA, groundwater sampling requirements that apply to the CCR SI under other existing permit programs will become void upon issuance of an approved operating permit pursuant to 35 I.A.C § 845. In addition, and in accordance with the CCA, once groundwater monitoring commences, the groundwater monitoring performed under Section 1.5 of the approved Closure and Post-Closure Care Plan will cease. Groundwater monitoring will include:
 - Monthly groundwater elevations
 - Quarterly groundwater sampling

6. REFERENCES

Illinois Administrative Code, Title 35, Subtitle G, Chapter I, Subchapter J, Part 845: Standards for The Disposal Of Coal Combustion Residuals In Surface Impoundments, effective April 21, 2021.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. *Addendum to the Groundwater Monitoring Plan*. Duck Creek Power Plant, Ash Pond No. 1 and Ash Pond No. 2, Canton, Illinois. Illinois Power Resources Generating, LLC. October 25, 2021.

TABLES

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 1, 2023
2023 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
BA06	Background	R1	01/10/2023	Antimony, total	0.00043 U	mg/L
BA06	Background	R1	01/10/2023	Arsenic, total	0.00900	mg/L
BA06	Background	R1	01/10/2023	Barium, total	0.120	mg/L
BA06	Background	R1	01/10/2023	Beryllium, total	0.00059 U	mg/L
BA06	Background	R1	01/10/2023	Boron, total	7.30	mg/L
BA06	Background	R1	01/10/2023	Cadmium, total	0.00074 U	mg/L
BA06	Background	R1	01/10/2023	Calcium, total	300	mg/L
BA06	Background	R1	01/10/2023	Chloride, total	590	mg/L
BA06	Background	R1	01/10/2023	Chromium, total	0.0028 U	mg/L
BA06	Background	R1	01/10/2023	Cobalt, total	0.00990	mg/L
BA06	Background	R1	01/10/2023	Dissolved Oxygen	3.60	mg/L
BA06	Background	R1	01/10/2023	Fluoride, total	0.258	mg/L
BA06	Background	R1	01/10/2023	Lead, total	0.00140	mg/L
BA06	Background	R1	01/10/2023	Lithium, total	0.0057 J	mg/L
BA06	Background	R1	01/10/2023	Mercury, total	0.00014 U	mg/L
BA06	Background	R1	01/10/2023	Molybdenum, total	0.00140	mg/L
BA06	Background	R1	01/10/2023	Oxidation Reduction Potential	-26.0	mV
BA06	Background	R1	01/10/2023	pH (field)	6.7	SU
BA06	Background	R1	01/10/2023	Radium 226 + Radium 228, total	1.46	pCi/L
BA06	Background	R1	01/10/2023	Selenium, total	0.00074 U	mg/L
BA06	Background	R1	01/10/2023	Specific Conductance @ 25C (field)	3,090	micromhos/cm
BA06	Background	R1	01/10/2023	Sulfate, total	300	mg/L
BA06	Background	R1	01/10/2023	Temperature (Celsius)	11.7	degrees C
BA06	Background	R1	01/10/2023	Thallium, total	0.00038 U	mg/L
BA06	Background	R1	01/10/2023	Total Dissolved Solids	2,100	mg/L
BA06	Background	R1	01/10/2023	Turbidity, field	1,000	NTU
OM16	Background	R1	01/12/2023	Antimony, total	0.0016 J	mg/L
OM16	Background	R1	01/12/2023	Arsenic, total	0.0840	mg/L
OM16	Background	R1	01/12/2023	Barium, total	0.350	mg/L
OM16	Background	R1	01/12/2023	Beryllium, total	0.00460	mg/L
OM16	Background	R1	01/12/2023	Boron, total	0.0920	mg/L
OM16	Background	R1	01/12/2023	Cadmium, total	0.00440	mg/L
OM16	Background	R1	01/12/2023	Calcium, total	680	mg/L
OM16	Background	R1	01/12/2023	Chloride, total	8.10 B	mg/L
OM16	Background	R1	01/12/2023	Chromium, total	0.140	mg/L
OM16	Background	R1	01/12/2023	Cobalt, total	0.0790	mg/L
OM16	Background	R1	01/12/2023	Dissolved Oxygen	2.00	mg/L
OM16	Background	R1	01/12/2023	Fluoride, total	0.203 J	mg/L
OM16	Background	R1	01/12/2023	Lead, total	0.0710	mg/L
OM16	Background	R1	01/12/2023	Lithium, total	0.140	mg/L
OM16	Background	R1	01/12/2023	Mercury, total	0.000240	mg/L
OM16	Background	R1	01/12/2023	Molybdenum, total	0.00720	mg/L
OM16	Background	R1	01/12/2023	Oxidation Reduction Potential	44.0	mV
OM16	Background	R1	01/12/2023	pH (field)	6.5	SU
OM16	Background	R1	01/12/2023	Radium 226 + Radium 228, total	0.664	pCi/L
OM16	Background	R1	01/12/2023	Selenium, total	0.00440	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM16	Background	R1	01/12/2023	Specific Conductance @ 25C (field)	3,980	micromhos/cm
OM16	Background	R1	01/12/2023	Sulfate, total	2,000 B	mg/L
OM16	Background	R1	01/12/2023	Temperature (Celsius)	9.10	degrees C
OM16	Background	R1	01/12/2023	Thallium, total	0.00100 J	mg/L
OM16	Background	R1	01/12/2023	Total Dissolved Solids	3,400	mg/L
OM16	Background	R1	01/12/2023	Turbidity, field	1,000	NTU
OM17	Background	R1	01/12/2023	Antimony, total	0.00054 J	mg/L
OM17	Background	R1	01/12/2023	Arsenic, total	0.00760	mg/L
OM17	Background	R1	01/12/2023	Barium, total	0.150	mg/L
OM17	Background	R1	01/12/2023	Beryllium, total	0.00120	mg/L
OM17	Background	R1	01/12/2023	Boron, total	0.180	mg/L
OM17	Background	R1	01/12/2023	Cadmium, total	0.00074 U	mg/L
OM17	Background	R1	01/12/2023	Calcium, total	220	mg/L
OM17	Background	R1	01/12/2023	Chloride, total	2.80 B	mg/L
OM17	Background	R1	01/12/2023	Chromium, total	0.0390	mg/L
OM17	Background	R1	01/12/2023	Cobalt, total	0.0140	mg/L
OM17	Background	R1	01/12/2023	Dissolved Oxygen	2.40	mg/L
OM17	Background	R1	01/12/2023	Fluoride, total	0.178 J	mg/L
OM17	Background	R1	01/12/2023	Lead, total	0.0170	mg/L
OM17	Background	R1	01/12/2023	Lithium, total	0.0450	mg/L
OM17	Background	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OM17	Background	R1	01/12/2023	Molybdenum, total	0.00250	mg/L
OM17	Background	R1	01/12/2023	Oxidation Reduction Potential	42.0	mV
OM17	Background	R1	01/12/2023	pH (field)	6.8	SU
OM17	Background	R1	01/12/2023	Radium 226 + Radium 228, total	4.57	pCi/L
OM17	Background	R1	01/12/2023	Selenium, total	0.00200	mg/L
OM17	Background	R1	01/12/2023	Specific Conductance @ 25C (field)	2,060	micromhos/cm
OM17	Background	R1	01/12/2023	Sulfate, total	370 B	mg/L
OM17	Background	R1	01/12/2023	Temperature (Celsius)	11.0	degrees C
OM17	Background	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OM17	Background	R1	01/12/2023	Total Dissolved Solids	940	mg/L
OM17	Background	R1	01/12/2023	Turbidity, field	1,000	NTU
OM01	Compliance	R1	01/11/2023	Antimony, total	0.00043 U	mg/L
OM01	Compliance	R1	01/11/2023	Arsenic, total	0.00280	mg/L
OM01	Compliance	R1	01/11/2023	Barium, total	0.0260	mg/L
OM01	Compliance	R1	01/11/2023	Beryllium, total	0.00059 U	mg/L
OM01	Compliance	R1	01/11/2023	Boron, total	0.560	mg/L
OM01	Compliance	R1	01/11/2023	Cadmium, total	0.00074 U	mg/L
OM01	Compliance	R1	01/11/2023	Calcium, total	610	mg/L
OM01	Compliance	R1	01/11/2023	Chloride, total	31.0	mg/L
OM01	Compliance	R1	01/11/2023	Chromium, total	0.0028 U	mg/L
OM01	Compliance	R1	01/11/2023	Cobalt, total	0.0200	mg/L
OM01	Compliance	R1	01/11/2023	Dissolved Oxygen	1.90	mg/L
OM01	Compliance	R1	01/11/2023	Fluoride, total	0.162 J	mg/L
OM01	Compliance	R1	01/11/2023	Lead, total	0.00052 J	mg/L
OM01	Compliance	R1	01/11/2023	Lithium, total	0.005 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM01	Compliance	R1	01/11/2023	Mercury, total	0.00014 U	mg/L
OM01	Compliance	R1	01/11/2023	Molybdenum, total	0.00074 U	mg/L
OM01	Compliance	R1	01/11/2023	Oxidation Reduction Potential	87.0	mV
OM01	Compliance	R1	01/11/2023	pH (field)	6.3	SU
OM01	Compliance	R1	01/11/2023	Radium 226 + Radium 228, total	1.99	pCi/L
OM01	Compliance	R1	01/11/2023	Selenium, total	0.00074 U	mg/L
OM01	Compliance	R1	01/11/2023	Specific Conductance @ 25C (field)	3,680	micromhos/cm
OM01	Compliance	R1	01/11/2023	Sulfate, total	1,800	mg/L
OM01	Compliance	R1	01/11/2023	Temperature (Celsius)	11.3	degrees C
OM01	Compliance	R1	01/11/2023	Thallium, total	0.00038 U	mg/L
OM01	Compliance	R1	01/11/2023	Total Dissolved Solids	3,500	mg/L
OM01	Compliance	R1	01/11/2023	Turbidity, field	56.8	NTU
OM04S	Compliance	R1	01/12/2023	Antimony, total	0.00043 U	mg/L
OM04S	Compliance	R1	01/12/2023	Arsenic, total	0.00910	mg/L
OM04S	Compliance	R1	01/12/2023	Barium, total	0.0830	mg/L
OM04S	Compliance	R1	01/12/2023	Beryllium, total	0.00059 U	mg/L
OM04S	Compliance	R1	01/12/2023	Boron, total	0.0810	mg/L
OM04S	Compliance	R1	01/12/2023	Cadmium, total	0.00074 U	mg/L
OM04S	Compliance	R1	01/12/2023	Calcium, total	150	mg/L
OM04S	Compliance	R1	01/12/2023	Chloride, total	16.0	mg/L
OM04S	Compliance	R1	01/12/2023	Chromium, total	0.00770	mg/L
OM04S	Compliance	R1	01/12/2023	Cobalt, total	0.00840	mg/L
OM04S	Compliance	R1	01/12/2023	Dissolved Oxygen	3.90	mg/L
OM04S	Compliance	R1	01/12/2023	Fluoride, total	0.249 J	mg/L
OM04S	Compliance	R1	01/12/2023	Lead, total	0.00390	mg/L
OM04S	Compliance	R1	01/12/2023	Lithium, total	0.0073 J	mg/L
OM04S	Compliance	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OM04S	Compliance	R1	01/12/2023	Molybdenum, total	0.00280	mg/L
OM04S	Compliance	R1	01/12/2023	Oxidation Reduction Potential	28.0	mV
OM04S	Compliance	R1	01/12/2023	pH (field)	7.0	SU
OM04S	Compliance	R1	01/12/2023	Radium 226 + Radium 228, total	0.331	pCi/L
OM04S	Compliance	R1	01/12/2023	Selenium, total	0.00074 U	mg/L
OM04S	Compliance	R1	01/12/2023	Specific Conductance @ 25C (field)	1,190	micromhos/cm
OM04S	Compliance	R1	01/12/2023	Sulfate, total	120	mg/L
OM04S	Compliance	R1	01/12/2023	Temperature (Celsius)	6.60	degrees C
OM04S	Compliance	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OM04S	Compliance	R1	01/12/2023	Total Dissolved Solids	760	mg/L
OM04S	Compliance	R1	01/12/2023	Turbidity, field	70.9	NTU
OM07	Compliance	R1	01/11/2023	Antimony, total	0.00064 J	mg/L
OM07	Compliance	R1	01/11/2023	Arsenic, total	0.00240	mg/L
OM07	Compliance	R1	01/11/2023	Barium, total	0.0550	mg/L
OM07	Compliance	R1	01/11/2023	Beryllium, total	0.00059 U	mg/L
OM07	Compliance	R1	01/11/2023	Boron, total	0.670	mg/L
OM07	Compliance	R1	01/11/2023	Cadmium, total	0.00074 U	mg/L
OM07	Compliance	R1	01/11/2023	Calcium, total	130	mg/L
OM07	Compliance	R1	01/11/2023	Chloride, total	9.40	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM07	Compliance	R1	01/11/2023	Chromium, total	0.0028 U	mg/L
OM07	Compliance	R1	01/11/2023	Cobalt, total	0.00290	mg/L
OM07	Compliance	R1	01/11/2023	Dissolved Oxygen	5.50	mg/L
OM07	Compliance	R1	01/11/2023	Fluoride, total	0.270	mg/L
OM07	Compliance	R1	01/11/2023	Lead, total	0.00088 J	mg/L
OM07	Compliance	R1	01/11/2023	Lithium, total	0.0058 J	mg/L
OM07	Compliance	R1	01/11/2023	Mercury, total	0.00014 U	mg/L
OM07	Compliance	R1	01/11/2023	Molybdenum, total	0.00120	mg/L
OM07	Compliance	R1	01/11/2023	Oxidation Reduction Potential	-39.0	mV
OM07	Compliance	R1	01/11/2023	pH (field)	7.1	SU
OM07	Compliance	R1	01/11/2023	Radium 226 + Radium 228, total	0.148	pCi/L
OM07	Compliance	R1	01/11/2023	Selenium, total	0.00074 U	mg/L
OM07	Compliance	R1	01/11/2023	Specific Conductance @ 25C (field)	1,200	micromhos/cm
OM07	Compliance	R1	01/11/2023	Sulfate, total	170	mg/L
OM07	Compliance	R1	01/11/2023	Temperature (Celsius)	12.9	degrees C
OM07	Compliance	R1	01/11/2023	Thallium, total	0.00038 U	mg/L
OM07	Compliance	R1	01/11/2023	Total Dissolved Solids	820 J	mg/L
OM07	Compliance	R1	01/11/2023	Turbidity, field	89.7	NTU
OM12	Compliance	R1	01/10/2023	Antimony, total	0.00043 U	mg/L
OM12	Compliance	R1	01/10/2023	Arsenic, total	0.0280	mg/L
OM12	Compliance	R1	01/10/2023	Barium, total	0.290	mg/L
OM12	Compliance	R1	01/10/2023	Beryllium, total	0.00059 U	mg/L
OM12	Compliance	R1	01/10/2023	Boron, total	0.140	mg/L
OM12	Compliance	R1	01/10/2023	Cadmium, total	0.00074 U	mg/L
OM12	Compliance	R1	01/10/2023	Calcium, total	300	mg/L
OM12	Compliance	R1	01/10/2023	Chloride, total	5.50 B	mg/L
OM12	Compliance	R1	01/10/2023	Chromium, total	0.00680	mg/L
OM12	Compliance	R1	01/10/2023	Cobalt, total	0.00430	mg/L
OM12	Compliance	R1	01/10/2023	Dissolved Oxygen	2.60	mg/L
OM12	Compliance	R1	01/10/2023	Fluoride, total	0.252	mg/L
OM12	Compliance	R1	01/10/2023	Lead, total	0.00780	mg/L
OM12	Compliance	R1	01/10/2023	Lithium, total	0.005 U	mg/L
OM12	Compliance	R1	01/10/2023	Mercury, total	0.00014 U	mg/L
OM12	Compliance	R1	01/10/2023	Molybdenum, total	0.00380	mg/L
OM12	Compliance	R1	01/10/2023	Oxidation Reduction Potential	-39.0	mV
OM12	Compliance	R1	01/10/2023	pH (field)	6.6	SU
OM12	Compliance	R1	01/10/2023	Radium 226 + Radium 228, total	0.284	pCi/L
OM12	Compliance	R1	01/10/2023	Selenium, total	0.00074 U	mg/L
OM12	Compliance	R1	01/10/2023	Specific Conductance @ 25C (field)	2,090	micromhos/cm
OM12	Compliance	R1	01/10/2023	Sulfate, total	370	mg/L
OM12	Compliance	R1	01/10/2023	Temperature (Celsius)	12.1	degrees C
OM12	Compliance	R1	01/10/2023	Thallium, total	0.00038 U	mg/L
OM12	Compliance	R1	01/10/2023	Total Dissolved Solids	1,500	mg/L
OM12	Compliance	R1	01/10/2023	Turbidity, field	597	NTU
OM21	Compliance	R1	01/12/2023	Antimony, total	0.00043 U	mg/L
OM21	Compliance	R1	01/12/2023	Arsenic, total	0.00150	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM21	Compliance	R1	01/12/2023	Barium, total	0.0160	mg/L
OM21	Compliance	R1	01/12/2023	Beryllium, total	0.00059 U	mg/L
OM21	Compliance	R1	01/12/2023	Boron, total	7.60	mg/L
OM21	Compliance	R1	01/12/2023	Cadmium, total	0.00074 U	mg/L
OM21	Compliance	R1	01/12/2023	Calcium, total	300	mg/L
OM21	Compliance	R1	01/12/2023	Chloride, total	220	mg/L
OM21	Compliance	R1	01/12/2023	Chromium, total	0.0028 U	mg/L
OM21	Compliance	R1	01/12/2023	Cobalt, total	0.00048 U	mg/L
OM21	Compliance	R1	01/12/2023	Dissolved Oxygen	1.90	mg/L
OM21	Compliance	R1	01/12/2023	Fluoride, total	0.273	mg/L
OM21	Compliance	R1	01/12/2023	Lead, total	0.00022 U	mg/L
OM21	Compliance	R1	01/12/2023	Lithium, total	0.0400	mg/L
OM21	Compliance	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OM21	Compliance	R1	01/12/2023	Molybdenum, total	0.00160	mg/L
OM21	Compliance	R1	01/12/2023	Oxidation Reduction Potential	11.0	mV
OM21	Compliance	R1	01/12/2023	pH (field)	6.7	SU
OM21	Compliance	R1	01/12/2023	Radium 226 + Radium 228, total	0.316	pCi/L
OM21	Compliance	R1	01/12/2023	Selenium, total	0.00074 U	mg/L
OM21	Compliance	R1	01/12/2023	Specific Conductance @ 25C (field)	3,620	micromhos/cm
OM21	Compliance	R1	01/12/2023	Sulfate, total	1,000	mg/L
OM21	Compliance	R1	01/12/2023	Temperature (Celsius)	10.4	degrees C
OM21	Compliance	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OM21	Compliance	R1	01/12/2023	Total Dissolved Solids	2,600	mg/L
OM21	Compliance	R1	01/12/2023	Turbidity, field	17.7	NTU
OM22D	Compliance	R1	01/10/2023	Antimony, total	0.00043 U	mg/L
OM22D	Compliance	R1	01/10/2023	Arsenic, total	0.00590	mg/L
OM22D	Compliance	R1	01/10/2023	Barium, total	0.0610	mg/L
OM22D	Compliance	R1	01/10/2023	Beryllium, total	0.00059 U	mg/L
OM22D	Compliance	R1	01/10/2023	Boron, total	45.0	mg/L
OM22D	Compliance	R1	01/10/2023	Cadmium, total	0.00074 U	mg/L
OM22D	Compliance	R1	01/10/2023	Calcium, total	550	mg/L
OM22D	Compliance	R1	01/10/2023	Chloride, total	900	mg/L
OM22D	Compliance	R1	01/10/2023	Chromium, total	0.00960	mg/L
OM22D	Compliance	R1	01/10/2023	Cobalt, total	0.00500	mg/L
OM22D	Compliance	R1	01/10/2023	Dissolved Oxygen	2.40	mg/L
OM22D	Compliance	R1	01/10/2023	Fluoride, total	0.195 J	mg/L
OM22D	Compliance	R1	01/10/2023	Lead, total	0.00260	mg/L
OM22D	Compliance	R1	01/10/2023	Lithium, total	0.0470	mg/L
OM22D	Compliance	R1	01/10/2023	Mercury, total	0.00014 U	mg/L
OM22D	Compliance	R1	01/10/2023	Molybdenum, total	0.0900	mg/L
OM22D	Compliance	R1	01/10/2023	Oxidation Reduction Potential	51.0	mV
OM22D	Compliance	R1	01/10/2023	pH (field)	6.7	SU
OM22D	Compliance	R1	01/10/2023	Radium 226 + Radium 228, total	0.118	pCi/L
OM22D	Compliance	R1	01/10/2023	Selenium, total	0.00074 U	mg/L
OM22D	Compliance	R1	01/10/2023	Specific Conductance @ 25C (field)	4,010	micromhos/cm
OM22D	Compliance	R1	01/10/2023	Sulfate, total	640	mg/L

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2023 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM22D	Compliance	R1	01/10/2023	Temperature (Celsius)	12.3	degrees C
OM22D	Compliance	R1	01/10/2023	Thallium, total	0.00038 U	mg/L
OM22D	Compliance	R1	01/10/2023	Total Dissolved Solids	2,900	mg/L
OM22D	Compliance	R1	01/10/2023	Turbidity, field	1,000	NTU
OM23D	Compliance	R1	01/12/2023	Antimony, total	0.00043 U	mg/L
OM23D	Compliance	R1	01/12/2023	Arsenic, total	0.00270	mg/L
OM23D	Compliance	R1	01/12/2023	Barium, total	0.0280	mg/L
OM23D	Compliance	R1	01/12/2023	Beryllium, total	0.00059 U	mg/L
OM23D	Compliance	R1	01/12/2023	Boron, total	1.80	mg/L
OM23D	Compliance	R1	01/12/2023	Cadmium, total	0.00074 U	mg/L
OM23D	Compliance	R1	01/12/2023	Calcium, total	170	mg/L
OM23D	Compliance	R1	01/12/2023	Chloride, total	25.0	mg/L
OM23D	Compliance	R1	01/12/2023	Chromium, total	0.0028 U	mg/L
OM23D	Compliance	R1	01/12/2023	Cobalt, total	0.00083 J	mg/L
OM23D	Compliance	R1	01/12/2023	Dissolved Oxygen	1.60	mg/L
OM23D	Compliance	R1	01/12/2023	Fluoride, total	0.189 J	mg/L
OM23D	Compliance	R1	01/12/2023	Lead, total	0.00081 J	mg/L
OM23D	Compliance	R1	01/12/2023	Lithium, total	0.0370	mg/L
OM23D	Compliance	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OM23D	Compliance	R1	01/12/2023	Molybdenum, total	0.00230	mg/L
OM23D	Compliance	R1	01/12/2023	Oxidation Reduction Potential	24.0	mV
OM23D	Compliance	R1	01/12/2023	pH (field)	6.8	SU
OM23D	Compliance	R1	01/12/2023	Radium 226 + Radium 228, total	0.864	pCi/L
OM23D	Compliance	R1	01/12/2023	Selenium, total	0.00074 U	mg/L
OM23D	Compliance	R1	01/12/2023	Specific Conductance @ 25C (field)	1,850	micromhos/cm
OM23D	Compliance	R1	01/12/2023	Sulfate, total	380	mg/L
OM23D	Compliance	R1	01/12/2023	Temperature (Celsius)	10.5	degrees C
OM23D	Compliance	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OM23D	Compliance	R1	01/12/2023	Total Dissolved Solids	1,200	mg/L
OM23D	Compliance	R1	01/12/2023	Turbidity, field	104	NTU
OM24D	Compliance	R1	01/10/2023	Antimony, total	0.00043 U	mg/L
OM24D	Compliance	R1	01/10/2023	Arsenic, total	0.00460	mg/L
OM24D	Compliance	R1	01/10/2023	Barium, total	0.0190	mg/L
OM24D	Compliance	R1	01/10/2023	Beryllium, total	0.00059 U	mg/L
OM24D	Compliance	R1	01/10/2023	Boron, total	23.0	mg/L
OM24D	Compliance	R1	01/10/2023	Cadmium, total	0.00074 U	mg/L
OM24D	Compliance	R1	01/10/2023	Calcium, total	410	mg/L
OM24D	Compliance	R1	01/10/2023	Chloride, total	550	mg/L
OM24D	Compliance	R1	01/10/2023	Chromium, total	0.0028 U	mg/L
OM24D	Compliance	R1	01/10/2023	Cobalt, total	0.00048 U	mg/L
OM24D	Compliance	R1	01/10/2023	Dissolved Oxygen	5.40	mg/L
OM24D	Compliance	R1	01/10/2023	Fluoride, total	0.566	mg/L
OM24D	Compliance	R1	01/10/2023	Lead, total	0.00036 J	mg/L
OM24D	Compliance	R1	01/10/2023	Lithium, total	0.012 J	mg/L
OM24D	Compliance	R1	01/10/2023	Mercury, total	0.00014 U	mg/L
OM24D	Compliance	R1	01/10/2023	Molybdenum, total	0.00510	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 1, 2023
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM24D	Compliance	R1	01/10/2023	Oxidation Reduction Potential	80.0	mV
OM24D	Compliance	R1	01/10/2023	pH (field)	6.5	SU
OM24D	Compliance	R1	01/10/2023	Radium 226 + Radium 228, total	1.42	pCi/L
OM24D	Compliance	R1	01/10/2023	Selenium, total	0.00074 U	mg/L
OM24D	Compliance	R1	01/10/2023	Specific Conductance @ 25C (field)	3,450	micromhos/cm
OM24D	Compliance	R1	01/10/2023	Sulfate, total	710	mg/L
OM24D	Compliance	R1	01/10/2023	Temperature (Celsius)	11.6	degrees C
OM24D	Compliance	R1	01/10/2023	Thallium, total	0.00038 U	mg/L
OM24D	Compliance	R1	01/10/2023	Total Dissolved Solids	2,500	mg/L
OM24D	Compliance	R1	01/10/2023	Turbidity, field	184	NTU
OM25S	Compliance	R1	01/10/2023	Antimony, total	0.00061 J	mg/L
OM25S	Compliance	R1	01/10/2023	Arsenic, total	0.00310	mg/L
OM25S	Compliance	R1	01/10/2023	Barium, total	0.0420	mg/L
OM25S	Compliance	R1	01/10/2023	Beryllium, total	0.00059 U	mg/L
OM25S	Compliance	R1	01/10/2023	Boron, total	21.0	mg/L
OM25S	Compliance	R1	01/10/2023	Cadmium, total	0.00074 U	mg/L
OM25S	Compliance	R1	01/10/2023	Calcium, total	310	mg/L
OM25S	Compliance	R1	01/10/2023	Chloride, total	550	mg/L
OM25S	Compliance	R1	01/10/2023	Chromium, total	0.00750	mg/L
OM25S	Compliance	R1	01/10/2023	Cobalt, total	0.00650	mg/L
OM25S	Compliance	R1	01/10/2023	Dissolved Oxygen	1.80	mg/L
OM25S	Compliance	R1	01/10/2023	Fluoride, total	0.176 J	mg/L
OM25S	Compliance	R1	01/10/2023	Lead, total	0.00330	mg/L
OM25S	Compliance	R1	01/10/2023	Lithium, total	0.0610	mg/L
OM25S	Compliance	R1	01/10/2023	Mercury, total	0.00014 U	mg/L
OM25S	Compliance	R1	01/10/2023	Molybdenum, total	0.00170	mg/L
OM25S	Compliance	R1	01/10/2023	Oxidation Reduction Potential	49.0	mV
OM25S	Compliance	R1	01/10/2023	pH (field)	6.7	SU
OM25S	Compliance	R1	01/10/2023	Radium 226 + Radium 228, total	4.78	pCi/L
OM25S	Compliance	R1	01/10/2023	Selenium, total	0.00074 U	mg/L
OM25S	Compliance	R1	01/10/2023	Specific Conductance @ 25C (field)	3,780	micromhos/cm
OM25S	Compliance	R1	01/10/2023	Sulfate, total	650	mg/L
OM25S	Compliance	R1	01/10/2023	Temperature (Celsius)	12.7	degrees C
OM25S	Compliance	R1	01/10/2023	Thallium, total	0.00038 U	mg/L
OM25S	Compliance	R1	01/10/2023	Total Dissolved Solids	2,700	mg/L
OM25S	Compliance	R1	01/10/2023	Turbidity, field	1,000	NTU
OR02	Compliance	R1	01/11/2023	Antimony, total	0.00043 U	mg/L
OR02	Compliance	R1	01/11/2023	Arsenic, total	0.0120	mg/L
OR02	Compliance	R1	01/11/2023	Barium, total	0.0720	mg/L
OR02	Compliance	R1	01/11/2023	Beryllium, total	0.00059 U	mg/L
OR02	Compliance	R1	01/11/2023	Boron, total	3.90	mg/L
OR02	Compliance	R1	01/11/2023	Cadmium, total	0.00074 U	mg/L
OR02	Compliance	R1	01/11/2023	Calcium, total	230	mg/L
OR02	Compliance	R1	01/11/2023	Chloride, total	210	mg/L
OR02	Compliance	R1	01/11/2023	Chromium, total	0.00990	mg/L
OR02	Compliance	R1	01/11/2023	Cobalt, total	0.00770	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR02	Compliance	R1	01/11/2023	Dissolved Oxygen	1.30	mg/L
OR02	Compliance	R1	01/11/2023	Fluoride, total	0.238 J	mg/L
OR02	Compliance	R1	01/11/2023	Lead, total	0.00780	mg/L
OR02	Compliance	R1	01/11/2023	Lithium, total	0.0098 J	mg/L
OR02	Compliance	R1	01/11/2023	Mercury, total	0.00014 U	mg/L
OR02	Compliance	R1	01/11/2023	Molybdenum, total	0.00470	mg/L
OR02	Compliance	R1	01/11/2023	Oxidation Reduction Potential	52.0	mV
OR02	Compliance	R1	01/11/2023	pH (field)	6.7	SU
OR02	Compliance	R1	01/11/2023	Radium 226 + Radium 228, total	0.918	pCi/L
OR02	Compliance	R1	01/11/2023	Selenium, total	0.0008 J	mg/L
OR02	Compliance	R1	01/11/2023	Specific Conductance @ 25C (field)	2,140	micromhos/cm
OR02	Compliance	R1	01/11/2023	Sulfate, total	280	mg/L
OR02	Compliance	R1	01/11/2023	Temperature (Celsius)	12.1	degrees C
OR02	Compliance	R1	01/11/2023	Thallium, total	0.00038 U	mg/L
OR02	Compliance	R1	01/11/2023	Total Dissolved Solids	1,600	mg/L
OR02	Compliance	R1	01/11/2023	Turbidity, field	1,000	NTU
OR03D	Compliance	R1	01/11/2023	Antimony, total	0.00043 U	mg/L
OR03D	Compliance	R1	01/11/2023	Arsenic, total	0.00860	mg/L
OR03D	Compliance	R1	01/11/2023	Barium, total	0.110	mg/L
OR03D	Compliance	R1	01/11/2023	Beryllium, total	0.00094 J	mg/L
OR03D	Compliance	R1	01/11/2023	Boron, total	52.0	mg/L
OR03D	Compliance	R1	01/11/2023	Cadmium, total	0.00074 U	mg/L
OR03D	Compliance	R1	01/11/2023	Calcium, total	590	mg/L
OR03D	Compliance	R1	01/11/2023	Chloride, total	1,200	mg/L
OR03D	Compliance	R1	01/11/2023	Chromium, total	0.0290	mg/L
OR03D	Compliance	R1	01/11/2023	Cobalt, total	0.00980	mg/L
OR03D	Compliance	R1	01/11/2023	Dissolved Oxygen	1.80	mg/L
OR03D	Compliance	R1	01/11/2023	Fluoride, total	0.212 J	mg/L
OR03D	Compliance	R1	01/11/2023	Lead, total	0.00830	mg/L
OR03D	Compliance	R1	01/11/2023	Lithium, total	0.0590	mg/L
OR03D	Compliance	R1	01/11/2023	Mercury, total	0.00014 U	mg/L
OR03D	Compliance	R1	01/11/2023	Molybdenum, total	0.00690	mg/L
OR03D	Compliance	R1	01/11/2023	Oxidation Reduction Potential	57.0	mV
OR03D	Compliance	R1	01/11/2023	pH (field)	6.6	SU
OR03D	Compliance	R1	01/11/2023	Radium 226 + Radium 228, total	1.95	pCi/L
OR03D	Compliance	R1	01/11/2023	Selenium, total	0.00100 J	mg/L
OR03D	Compliance	R1	01/11/2023	Specific Conductance @ 25C (field)	5,310	micromhos/cm
OR03D	Compliance	R1	01/11/2023	Sulfate, total	600	mg/L
OR03D	Compliance	R1	01/11/2023	Temperature (Celsius)	14.4	degrees C
OR03D	Compliance	R1	01/11/2023	Thallium, total	0.00038 U	mg/L
OR03D	Compliance	R1	01/11/2023	Total Dissolved Solids	4,300	mg/L
OR03D	Compliance	R1	01/11/2023	Turbidity, field	1,000	NTU
OR04D	Compliance	R1	01/11/2023	Antimony, total	0.00043 U	mg/L
OR04D	Compliance	R1	01/11/2023	Arsenic, total	0.00670	mg/L
OR04D	Compliance	R1	01/11/2023	Barium, total	0.0750	mg/L
OR04D	Compliance	R1	01/11/2023	Beryllium, total	0.00059 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR04D	Compliance	R1	01/11/2023	Boron, total	100	mg/L
OR04D	Compliance	R1	01/11/2023	Cadmium, total	0.00074 U	mg/L
OR04D	Compliance	R1	01/11/2023	Calcium, total	760	mg/L
OR04D	Compliance	R1	01/11/2023	Chloride, total	1,400	mg/L
OR04D	Compliance	R1	01/11/2023	Chromium, total	0.0120	mg/L
OR04D	Compliance	R1	01/11/2023	Cobalt, total	0.00480	mg/L
OR04D	Compliance	R1	01/11/2023	Dissolved Oxygen	1.30	mg/L
OR04D	Compliance	R1	01/11/2023	Fluoride, total	0.231 J	mg/L
OR04D	Compliance	R1	01/11/2023	Lead, total	0.00500	mg/L
OR04D	Compliance	R1	01/11/2023	Lithium, total	0.0680	mg/L
OR04D	Compliance	R1	01/11/2023	Mercury, total	0.00014 U	mg/L
OR04D	Compliance	R1	01/11/2023	Molybdenum, total	0.00570	mg/L
OR04D	Compliance	R1	01/11/2023	Oxidation Reduction Potential	-8.00	mV
OR04D	Compliance	R1	01/11/2023	pH (field)	6.6	SU
OR04D	Compliance	R1	01/11/2023	Radium 226 + Radium 228, total	2.96	pCi/L
OR04D	Compliance	R1	01/11/2023	Selenium, total	0.00074 U	mg/L
OR04D	Compliance	R1	01/11/2023	Specific Conductance @ 25C (field)	6,180	micromhos/cm
OR04D	Compliance	R1	01/11/2023	Sulfate, total	1,100	mg/L
OR04D	Compliance	R1	01/11/2023	Temperature (Celsius)	13.7	degrees C
OR04D	Compliance	R1	01/11/2023	Thallium, total	0.00038 U	mg/L
OR04D	Compliance	R1	01/11/2023	Total Dissolved Solids	4,900	mg/L
OR04D	Compliance	R1	01/11/2023	Turbidity, field	154	NTU
OR06A	Compliance	R1	01/11/2023	Antimony, total	0.00088 J	mg/L
OR06A	Compliance	R1	01/11/2023	Arsenic, total	0.0210	mg/L
OR06A	Compliance	R1	01/11/2023	Barium, total	0.100	mg/L
OR06A	Compliance	R1	01/11/2023	Beryllium, total	0.00059 U	mg/L
OR06A	Compliance	R1	01/11/2023	Boron, total	27.0	mg/L
OR06A	Compliance	R1	01/11/2023	Cadmium, total	0.00074 U	mg/L
OR06A	Compliance	R1	01/11/2023	Calcium, total	330	mg/L
OR06A	Compliance	R1	01/11/2023	Chloride, total	390	mg/L
OR06A	Compliance	R1	01/11/2023	Chromium, total	0.0130	mg/L
OR06A	Compliance	R1	01/11/2023	Cobalt, total	0.00820	mg/L
OR06A	Compliance	R1	01/11/2023	Dissolved Oxygen	4.00	mg/L
OR06A	Compliance	R1	01/11/2023	Fluoride, total	0.167 J	mg/L
OR06A	Compliance	R1	01/11/2023	Lead, total	0.00890	mg/L
OR06A	Compliance	R1	01/11/2023	Lithium, total	0.016 J	mg/L
OR06A	Compliance	R1	01/11/2023	Mercury, total	0.00014 U	mg/L
OR06A	Compliance	R1	01/11/2023	Molybdenum, total	0.0230	mg/L
OR06A	Compliance	R1	01/11/2023	Oxidation Reduction Potential	-41.0	mV
OR06A	Compliance	R1	01/11/2023	pH (field)	6.9	SU
OR06A	Compliance	R1	01/11/2023	Radium 226 + Radium 228, total	0.495	pCi/L
OR06A	Compliance	R1	01/11/2023	Selenium, total	0.00074 U	mg/L
OR06A	Compliance	R1	01/11/2023	Specific Conductance @ 25C (field)	2,890	micromhos/cm
OR06A	Compliance	R1	01/11/2023	Sulfate, total	450	mg/L
OR06A	Compliance	R1	01/11/2023	Temperature (Celsius)	12.8	degrees C
OR06A	Compliance	R1	01/11/2023	Thallium, total	0.00038 U	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR06A	Compliance	R1	01/11/2023	Total Dissolved Solids	2,100	mg/L
OR06A	Compliance	R1	01/11/2023	Turbidity, field	506	NTU
OR11	Compliance	R1	01/12/2023	Antimony, total	0.0018 J	mg/L
OR11	Compliance	R1	01/12/2023	Arsenic, total	0.0630	mg/L
OR11	Compliance	R1	01/12/2023	Barium, total	1.10	mg/L
OR11	Compliance	R1	01/12/2023	Beryllium, total	0.00460	mg/L
OR11	Compliance	R1	01/12/2023	Boron, total	9.20	mg/L
OR11	Compliance	R1	01/12/2023	Cadmium, total	0.00091 J	mg/L
OR11	Compliance	R1	01/12/2023	Calcium, total	230	mg/L
OR11	Compliance	R1	01/12/2023	Chloride, total	88.0	mg/L
OR11	Compliance	R1	01/12/2023	Chromium, total	0.0480	mg/L
OR11	Compliance	R1	01/12/2023	Cobalt, total	0.0300	mg/L
OR11	Compliance	R1	01/12/2023	Dissolved Oxygen	6.10	mg/L
OR11	Compliance	R1	01/12/2023	Fluoride, total	0.293	mg/L
OR11	Compliance	R1	01/12/2023	Lead, total	0.100	mg/L
OR11	Compliance	R1	01/12/2023	Lithium, total	0.0630	mg/L
OR11	Compliance	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OR11	Compliance	R1	01/12/2023	Molybdenum, total	0.0140	mg/L
OR11	Compliance	R1	01/12/2023	Oxidation Reduction Potential	-9.00	mV
OR11	Compliance	R1	01/12/2023	pH (field)	7.2	SU
OR11	Compliance	R1	01/12/2023	Radium 226 + Radium 228, total	8.04	pCi/L
OR11	Compliance	R1	01/12/2023	Selenium, total	0.00410	mg/L
OR11	Compliance	R1	01/12/2023	Specific Conductance @ 25C (field)	1,270	micromhos/cm
OR11	Compliance	R1	01/12/2023	Sulfate, total	170	mg/L
OR11	Compliance	R1	01/12/2023	Temperature (Celsius)	9.80	degrees C
OR11	Compliance	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OR11	Compliance	R1	01/12/2023	Total Dissolved Solids	820	mg/L
OR11	Compliance	R1	01/12/2023	Turbidity, field	1,000	NTU
OR13S	Compliance	R1	01/12/2023	Antimony, total	0.00300 J	mg/L
OR13S	Compliance	R1	01/12/2023	Arsenic, total	0.130	mg/L
OR13S	Compliance	R1	01/12/2023	Barium, total	0.100	mg/L
OR13S	Compliance	R1	01/12/2023	Beryllium, total	0.00059 U	mg/L
OR13S	Compliance	R1	01/12/2023	Boron, total	3.80	mg/L
OR13S	Compliance	R1	01/12/2023	Cadmium, total	0.00074 U	mg/L
OR13S	Compliance	R1	01/12/2023	Calcium, total	290	mg/L
OR13S	Compliance	R1	01/12/2023	Chloride, total	67.0	mg/L
OR13S	Compliance	R1	01/12/2023	Chromium, total	0.0130	mg/L
OR13S	Compliance	R1	01/12/2023	Cobalt, total	0.00540	mg/L
OR13S	Compliance	R1	01/12/2023	Dissolved Oxygen	3.70	mg/L
OR13S	Compliance	R1	01/12/2023	Fluoride, total	0.277	mg/L
OR13S	Compliance	R1	01/12/2023	Lead, total	0.0190	mg/L
OR13S	Compliance	R1	01/12/2023	Lithium, total	0.0270	mg/L
OR13S	Compliance	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OR13S	Compliance	R1	01/12/2023	Molybdenum, total	0.0100	mg/L
OR13S	Compliance	R1	01/12/2023	Oxidation Reduction Potential	-43.0	mV
OR13S	Compliance	R1	01/12/2023	pH (field)	6.8	SU

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR13S	Compliance	R1	01/12/2023	Radium 226 + Radium 228, total	3.63	pCi/L
OR13S	Compliance	R1	01/12/2023	Selenium, total	0.00110	mg/L
OR13S	Compliance	R1	01/12/2023	Specific Conductance @ 25C (field)	2,270	micromhos/cm
OR13S	Compliance	R1	01/12/2023	Sulfate, total	670	mg/L
OR13S	Compliance	R1	01/12/2023	Temperature (Celsius)	10.4	degrees C
OR13S	Compliance	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OR13S	Compliance	R1	01/12/2023	Total Dissolved Solids	1,700	mg/L
OR13S	Compliance	R1	01/12/2023	Turbidity, field	564	NTU
OR13D	Compliance	R1	01/12/2023	Antimony, total	0.00043 U	mg/L
OR13D	Compliance	R1	01/12/2023	Arsenic, total	0.00410	mg/L
OR13D	Compliance	R1	01/12/2023	Barium, total	0.0340	mg/L
OR13D	Compliance	R1	01/12/2023	Beryllium, total	0.00059 U	mg/L
OR13D	Compliance	R1	01/12/2023	Boron, total	1.80	mg/L
OR13D	Compliance	R1	01/12/2023	Cadmium, total	0.00074 U	mg/L
OR13D	Compliance	R1	01/12/2023	Calcium, total	120	mg/L
OR13D	Compliance	R1	01/12/2023	Chloride, total	47.0	mg/L
OR13D	Compliance	R1	01/12/2023	Chromium, total	0.0028 U	mg/L
OR13D	Compliance	R1	01/12/2023	Cobalt, total	0.00048 U	mg/L
OR13D	Compliance	R1	01/12/2023	Dissolved Oxygen	4.40	mg/L
OR13D	Compliance	R1	01/12/2023	Fluoride, total	0.296	mg/L
OR13D	Compliance	R1	01/12/2023	Lead, total	0.00022 U	mg/L
OR13D	Compliance	R1	01/12/2023	Lithium, total	0.0260	mg/L
OR13D	Compliance	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OR13D	Compliance	R1	01/12/2023	Molybdenum, total	0.00760	mg/L
OR13D	Compliance	R1	01/12/2023	Oxidation Reduction Potential	219	mV
OR13D	Compliance	R1	01/12/2023	pH (field)	6.7	SU
OR13D	Compliance	R1	01/12/2023	Radium 226 + Radium 228, total	1.37	pCi/L
OR13D	Compliance	R1	01/12/2023	Selenium, total	0.00074 U	mg/L
OR13D	Compliance	R1	01/12/2023	Specific Conductance @ 25C (field)	1,880	micromhos/cm
OR13D	Compliance	R1	01/12/2023	Sulfate, total	290	mg/L
OR13D	Compliance	R1	01/12/2023	Temperature (Celsius)	10.7	degrees C
OR13D	Compliance	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OR13D	Compliance	R1	01/12/2023	Total Dissolved Solids	1,200	mg/L
OR13D	Compliance	R1	01/12/2023	Turbidity, field	139	NTU
OR14D	Compliance	R1	01/12/2023	Antimony, total	0.00043 U	mg/L
OR14D	Compliance	R1	01/12/2023	Arsenic, total	0.00400	mg/L
OR14D	Compliance	R1	01/12/2023	Barium, total	0.0320	mg/L
OR14D	Compliance	R1	01/12/2023	Beryllium, total	0.00059 U	mg/L
OR14D	Compliance	R1	01/12/2023	Boron, total	21.0	mg/L
OR14D	Compliance	R1	01/12/2023	Cadmium, total	0.00074 U	mg/L
OR14D	Compliance	R1	01/12/2023	Calcium, total	440	mg/L
OR14D	Compliance	R1	01/12/2023	Chloride, total	350	mg/L
OR14D	Compliance	R1	01/12/2023	Chromium, total	0.003 J	mg/L
OR14D	Compliance	R1	01/12/2023	Cobalt, total	0.0018 J	mg/L
OR14D	Compliance	R1	01/12/2023	Dissolved Oxygen	3.90	mg/L
OR14D	Compliance	R1	01/12/2023	Fluoride, total	0.269	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR14D	Compliance	R1	01/12/2023	Lead, total	0.00340	mg/L
OR14D	Compliance	R1	01/12/2023	Lithium, total	0.0240	mg/L
OR14D	Compliance	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OR14D	Compliance	R1	01/12/2023	Molybdenum, total	0.00620	mg/L
OR14D	Compliance	R1	01/12/2023	Oxidation Reduction Potential	6.00	mV
OR14D	Compliance	R1	01/12/2023	pH (field)	6.8	SU
OR14D	Compliance	R1	01/12/2023	Radium 226 + Radium 228, total	0.429	pCi/L
OR14D	Compliance	R1	01/12/2023	Selenium, total	0.00074 U	mg/L
OR14D	Compliance	R1	01/12/2023	Specific Conductance @ 25C (field)	2,960	micromhos/cm
OR14D	Compliance	R1	01/12/2023	Sulfate, total	800	mg/L
OR14D	Compliance	R1	01/12/2023	Temperature (Celsius)	10.2	degrees C
OR14D	Compliance	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OR14D	Compliance	R1	01/12/2023	Total Dissolved Solids	2,300	mg/L
OR14D	Compliance	R1	01/12/2023	Turbidity, field	287	NTU
OR19	Compliance	R1	01/12/2023	Antimony, total	0.00043 U	mg/L
OR19	Compliance	R1	01/12/2023	Arsenic, total	0.00240	mg/L
OR19	Compliance	R1	01/12/2023	Barium, total	0.0230	mg/L
OR19	Compliance	R1	01/12/2023	Beryllium, total	0.00059 U	mg/L
OR19	Compliance	R1	01/12/2023	Boron, total	16.0	mg/L
OR19	Compliance	R1	01/12/2023	Cadmium, total	0.00074 U	mg/L
OR19	Compliance	R1	01/12/2023	Calcium, total	310	mg/L
OR19	Compliance	R1	01/12/2023	Chloride, total	160	mg/L
OR19	Compliance	R1	01/12/2023	Chromium, total	0.0031 J	mg/L
OR19	Compliance	R1	01/12/2023	Cobalt, total	0.0008 J	mg/L
OR19	Compliance	R1	01/12/2023	Dissolved Oxygen	1.20	mg/L
OR19	Compliance	R1	01/12/2023	Fluoride, total	0.395	mg/L
OR19	Compliance	R1	01/12/2023	Lead, total	0.00120	mg/L
OR19	Compliance	R1	01/12/2023	Lithium, total	0.0220	mg/L
OR19	Compliance	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OR19	Compliance	R1	01/12/2023	Molybdenum, total	0.00390	mg/L
OR19	Compliance	R1	01/12/2023	Oxidation Reduction Potential	-10.0	mV
OR19	Compliance	R1	01/12/2023	pH (field)	6.8	SU
OR19	Compliance	R1	01/12/2023	Radium 226 + Radium 228, total	1.49	pCi/L
OR19	Compliance	R1	01/12/2023	Selenium, total	0.00074 U	mg/L
OR19	Compliance	R1	01/12/2023	Specific Conductance @ 25C (field)	2,950	micromhos/cm
OR19	Compliance	R1	01/12/2023	Sulfate, total	810	mg/L
OR19	Compliance	R1	01/12/2023	Temperature (Celsius)	11.0	degrees C
OR19	Compliance	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OR19	Compliance	R1	01/12/2023	Total Dissolved Solids	2,200	mg/L
OR19	Compliance	R1	01/12/2023	Turbidity, field	140	NTU
OR20	Compliance	R1	01/12/2023	Antimony, total	0.00048 J	mg/L
OR20	Compliance	R1	01/12/2023	Arsenic, total	0.00870	mg/L
OR20	Compliance	R1	01/12/2023	Barium, total	0.0410	mg/L
OR20	Compliance	R1	01/12/2023	Beryllium, total	0.00059 U	mg/L
OR20	Compliance	R1	01/12/2023	Boron, total	35.0	mg/L
OR20	Compliance	R1	01/12/2023	Cadmium, total	0.00074 U	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR20	Compliance	R1	01/12/2023	Calcium, total	250	mg/L
OR20	Compliance	R1	01/12/2023	Chloride, total	340	mg/L
OR20	Compliance	R1	01/12/2023	Chromium, total	0.00770	mg/L
OR20	Compliance	R1	01/12/2023	Cobalt, total	0.00280	mg/L
OR20	Compliance	R1	01/12/2023	Dissolved Oxygen	3.10	mg/L
OR20	Compliance	R1	01/12/2023	Fluoride, total	0.499	mg/L
OR20	Compliance	R1	01/12/2023	Lead, total	0.00420	mg/L
OR20	Compliance	R1	01/12/2023	Lithium, total	0.0440	mg/L
OR20	Compliance	R1	01/12/2023	Mercury, total	0.00014 U	mg/L
OR20	Compliance	R1	01/12/2023	Molybdenum, total	0.0380	mg/L
OR20	Compliance	R1	01/12/2023	Oxidation Reduction Potential	-27.0	mV
OR20	Compliance	R1	01/12/2023	pH (field)	7.0	SU
OR20	Compliance	R1	01/12/2023	Radium 226 + Radium 228, total	0.694	pCi/L
OR20	Compliance	R1	01/12/2023	Selenium, total	0.00074 U	mg/L
OR20	Compliance	R1	01/12/2023	Specific Conductance @ 25C (field)	2,640	micromhos/cm
OR20	Compliance	R1	01/12/2023	Sulfate, total	380	mg/L
OR20	Compliance	R1	01/12/2023	Temperature (Celsius)	10.2	degrees C
OR20	Compliance	R1	01/12/2023	Thallium, total	0.00038 U	mg/L
OR20	Compliance	R1	01/12/2023	Total Dissolved Solids	1,700	mg/L
OR20	Compliance	R1	01/12/2023	Turbidity, field	401	NTU

Notes:
C = Celsius
cm = centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
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.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2023
2023 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
BA06	Background	R2	05/12/2023	Antimony, total	0.00043 U	mg/L
BA06	Background	R2	05/12/2023	Arsenic, total	0.00520	mg/L
BA06	Background	R2	05/12/2023	Barium, total	0.110	mg/L
BA06	Background	R2	05/12/2023	Beryllium, total	0.00059 U	mg/L
BA06	Background	R2	05/12/2023	Boron, total	8.70	mg/L
BA06	Background	R2	05/12/2023	Cadmium, total	0.00074 U	mg/L
BA06	Background	R2	05/12/2023	Calcium, total	340	mg/L
BA06	Background	R2	05/12/2023	Chloride, total	510	mg/L
BA06	Background	R2	05/12/2023	Chromium, total	0.0035 J	mg/L
BA06	Background	R2	05/12/2023	Cobalt, total	0.00950	mg/L
BA06	Background	R2	05/12/2023	Dissolved Oxygen	0.820	mg/L
BA06	Background	R2	05/12/2023	Fluoride, total	0.231 J	mg/L
BA06	Background	R2	05/12/2023	Lead, total	0.00036 J	mg/L
BA06	Background	R2	05/12/2023	Lithium, total	0.0052 J	mg/L
BA06	Background	R2	05/12/2023	Mercury, total	0.00014 U	mg/L
BA06	Background	R2	05/12/2023	Molybdenum, total	0.00120	mg/L
BA06	Background	R2	05/12/2023	Oxidation Reduction Potential	-39.0	mV
BA06	Background	R2	05/12/2023	pH (field)	6.4	SU
BA06	Background	R2	05/12/2023	Radium 226 + Radium 228, total	1.11	pCi/L
BA06	Background	R2	05/12/2023	Selenium, total	0.00074 U	mg/L
BA06	Background	R2	05/12/2023	Specific Conductance @ 25C (field)	2,930	micromhos/cm
BA06	Background	R2	05/12/2023	Sulfate, total	340	mg/L
BA06	Background	R2	05/12/2023	Temperature (Celsius)	15.7	degrees C
BA06	Background	R2	05/12/2023	Thallium, total	0.00038 U	mg/L
BA06	Background	R2	05/12/2023	Total Dissolved Solids	2,200	mg/L
BA06	Background	R2	05/12/2023	Turbidity, field	55.1	NTU
OM16	Background	R2	05/10/2023	Antimony, total	0.00043 U	mg/L
OM16	Background	R2	05/10/2023	Arsenic, total	0.00870	mg/L
OM16	Background	R2	05/10/2023	Barium, total	0.0570	mg/L
OM16	Background	R2	05/10/2023	Beryllium, total	0.00270 J+	mg/L
OM16	Background	R2	05/10/2023	Boron, total	0.0630 J+	mg/L
OM16	Background	R2	05/10/2023	Cadmium, total	0.00310	mg/L
OM16	Background	R2	05/10/2023	Calcium, total	640	mg/L
OM16	Background	R2	05/10/2023	Chloride, total	8.20	mg/L
OM16	Background	R2	05/10/2023	Chromium, total	0.0140	mg/L
OM16	Background	R2	05/10/2023	Cobalt, total	0.00900	mg/L
OM16	Background	R2	05/10/2023	Dissolved Oxygen	1.20	mg/L
OM16	Background	R2	05/10/2023	Fluoride, total	0.149 J	mg/L
OM16	Background	R2	05/10/2023	Lead, total	0.00540	mg/L
OM16	Background	R2	05/10/2023	Lithium, total	0.0400	mg/L
OM16	Background	R2	05/10/2023	Mercury, total	0.00014 U	mg/L
OM16	Background	R2	05/10/2023	Molybdenum, total	0.00500 J+	mg/L
OM16	Background	R2	05/10/2023	Oxidation Reduction Potential	32.0	mV
OM16	Background	R2	05/10/2023	pH (field)	6.5	SU
OM16	Background	R2	05/10/2023	Radium 226 + Radium 228, total	1.34	pCi/L
OM16	Background	R2	05/10/2023	Selenium, total	0.00074 U	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM16	Background	R2	05/10/2023	Specific Conductance @ 25C (field)	3,470	micromhos/cm
OM16	Background	R2	05/10/2023	Sulfate, total	2,300	mg/L
OM16	Background	R2	05/10/2023	Temperature (Celsius)	26.1	degrees C
OM16	Background	R2	05/10/2023	Thallium, total	0.00038 U	mg/L
OM16	Background	R2	05/10/2023	Total Dissolved Solids	4,100 J	mg/L
OM16	Background	R2	05/10/2023	Turbidity, field	1,000	NTU
OM17	Background	R2	05/10/2023	Antimony, total	0.00043 U	mg/L
OM17	Background	R2	05/10/2023	Arsenic, total	0.00250	mg/L
OM17	Background	R2	05/10/2023	Barium, total	0.110	mg/L
OM17	Background	R2	05/10/2023	Beryllium, total	0.001 U	mg/L
OM17	Background	R2	05/10/2023	Boron, total	0.160 J+	mg/L
OM17	Background	R2	05/10/2023	Cadmium, total	0.00074 U	mg/L
OM17	Background	R2	05/10/2023	Calcium, total	160	mg/L
OM17	Background	R2	05/10/2023	Chloride, total	2.90	mg/L
OM17	Background	R2	05/10/2023	Chromium, total	0.0110	mg/L
OM17	Background	R2	05/10/2023	Cobalt, total	0.00480	mg/L
OM17	Background	R2	05/10/2023	Dissolved Oxygen	2.30	mg/L
OM17	Background	R2	05/10/2023	Fluoride, total	0.0969 J	mg/L
OM17	Background	R2	05/10/2023	Lead, total	0.00390	mg/L
OM17	Background	R2	05/10/2023	Lithium, total	0.016 J	mg/L
OM17	Background	R2	05/10/2023	Mercury, total	0.00014 U	mg/L
OM17	Background	R2	05/10/2023	Molybdenum, total	0.00130 J+	mg/L
OM17	Background	R2	05/10/2023	Oxidation Reduction Potential	17.0	mV
OM17	Background	R2	05/10/2023	pH (field)	6.7	SU
OM17	Background	R2	05/10/2023	Radium 226 + Radium 228, total	0.561	pCi/L
OM17	Background	R2	05/10/2023	Selenium, total	0.00074 U	mg/L
OM17	Background	R2	05/10/2023	Specific Conductance @ 25C (field)	923	micromhos/cm
OM17	Background	R2	05/10/2023	Sulfate, total	240	mg/L
OM17	Background	R2	05/10/2023	Temperature (Celsius)	23.8	degrees C
OM17	Background	R2	05/10/2023	Thallium, total	0.00038 U	mg/L
OM17	Background	R2	05/10/2023	Total Dissolved Solids	860 J	mg/L
OM17	Background	R2	05/10/2023	Turbidity, field	375	NTU
OM01	Compliance	R2	05/16/2023	Antimony, total	0.00043 U	mg/L
OM01	Compliance	R2	05/16/2023	Arsenic, total	0.00069 U	mg/L
OM01	Compliance	R2	05/16/2023	Barium, total	0.0190	mg/L
OM01	Compliance	R2	05/16/2023	Beryllium, total	0.001 U	mg/L
OM01	Compliance	R2	05/16/2023	Boron, total	0.210	mg/L
OM01	Compliance	R2	05/16/2023	Cadmium, total	0.00074 U	mg/L
OM01	Compliance	R2	05/16/2023	Calcium, total	690	mg/L
OM01	Compliance	R2	05/16/2023	Chloride, total	29.0	mg/L
OM01	Compliance	R2	05/16/2023	Chromium, total	0.0028 U	mg/L
OM01	Compliance	R2	05/16/2023	Cobalt, total	0.0140	mg/L
OM01	Compliance	R2	05/16/2023	Dissolved Oxygen	6.20	mg/L
OM01	Compliance	R2	05/16/2023	Fluoride, total	0.142 J	mg/L
OM01	Compliance	R2	05/16/2023	Lead, total	0.00039 J	mg/L
OM01	Compliance	R2	05/16/2023	Lithium, total	0.005 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM01	Compliance	R2	05/16/2023	Mercury, total	0.00016 J	mg/L
OM01	Compliance	R2	05/16/2023	Molybdenum, total	0.001 U	mg/L
OM01	Compliance	R2	05/16/2023	Oxidation Reduction Potential	129	mV
OM01	Compliance	R2	05/16/2023	pH (field)	6.3	SU
OM01	Compliance	R2	05/16/2023	Radium 226 + Radium 228, total	0.799	pCi/L
OM01	Compliance	R2	05/16/2023	Selenium, total	0.00074 U	mg/L
OM01	Compliance	R2	05/16/2023	Specific Conductance @ 25C (field)	3,350	micromhos/cm
OM01	Compliance	R2	05/16/2023	Sulfate, total	1,900	mg/L
OM01	Compliance	R2	05/16/2023	Temperature (Celsius)	19.0	degrees C
OM01	Compliance	R2	05/16/2023	Thallium, total	0.00038 U	mg/L
OM01	Compliance	R2	05/16/2023	Total Dissolved Solids	3,300 J	mg/L
OM01	Compliance	R2	05/16/2023	Turbidity, field	117	NTU
OM04S	Compliance	R2	05/16/2023	Antimony, total	0.00043 U	mg/L
OM04S	Compliance	R2	05/16/2023	Arsenic, total	0.00069 U	mg/L
OM04S	Compliance	R2	05/16/2023	Barium, total	0.0450	mg/L
OM04S	Compliance	R2	05/16/2023	Beryllium, total	0.001 U	mg/L
OM04S	Compliance	R2	05/16/2023	Boron, total	0.0950 J+	mg/L
OM04S	Compliance	R2	05/16/2023	Cadmium, total	0.00074 U	mg/L
OM04S	Compliance	R2	05/16/2023	Calcium, total	160	mg/L
OM04S	Compliance	R2	05/16/2023	Chloride, total	17.0	mg/L
OM04S	Compliance	R2	05/16/2023	Chromium, total	0.0028 U	mg/L
OM04S	Compliance	R2	05/16/2023	Cobalt, total	0.00390	mg/L
OM04S	Compliance	R2	05/16/2023	Dissolved Oxygen	0.890	mg/L
OM04S	Compliance	R2	05/16/2023	Fluoride, total	0.22 J	mg/L
OM04S	Compliance	R2	05/16/2023	Lead, total	0.00086 J	mg/L
OM04S	Compliance	R2	05/16/2023	Lithium, total	0.005 U	mg/L
OM04S	Compliance	R2	05/16/2023	Mercury, total	0.00014 U	mg/L
OM04S	Compliance	R2	05/16/2023	Molybdenum, total	0.00150 J+	mg/L
OM04S	Compliance	R2	05/16/2023	Oxidation Reduction Potential	81.2	mV
OM04S	Compliance	R2	05/16/2023	pH (field)	6.7	SU
OM04S	Compliance	R2	05/16/2023	Radium 226 + Radium 228, total	1.28	pCi/L
OM04S	Compliance	R2	05/16/2023	Selenium, total	0.00074 U	mg/L
OM04S	Compliance	R2	05/16/2023	Specific Conductance @ 25C (field)	1,193	micromhos/cm
OM04S	Compliance	R2	05/16/2023	Sulfate, total	140	mg/L
OM04S	Compliance	R2	05/16/2023	Temperature (Celsius)	18.3	degrees C
OM04S	Compliance	R2	05/16/2023	Thallium, total	0.00038 U	mg/L
OM04S	Compliance	R2	05/16/2023	Total Dissolved Solids	740 J	mg/L
OM04S	Compliance	R2	05/16/2023	Turbidity, field	194	NTU
OM07	Compliance	R2	05/17/2023	Antimony, total	0.00043 U	mg/L
OM07	Compliance	R2	05/17/2023	Arsenic, total	0.00350	mg/L
OM07	Compliance	R2	05/17/2023	Barium, total	0.370	mg/L
OM07	Compliance	R2	05/17/2023	Beryllium, total	0.00059 U	mg/L
OM07	Compliance	R2	05/17/2023	Boron, total	0.460	mg/L
OM07	Compliance	R2	05/17/2023	Cadmium, total	0.00074 U	mg/L
OM07	Compliance	R2	05/17/2023	Calcium, total	170	mg/L
OM07	Compliance	R2	05/17/2023	Chloride, total	11.0	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM07	Compliance	R2	05/17/2023	Chromium, total	0.00780	mg/L
OM07	Compliance	R2	05/17/2023	Cobalt, total	0.0150	mg/L
OM07	Compliance	R2	05/17/2023	Dissolved Oxygen	1.60	mg/L
OM07	Compliance	R2	05/17/2023	Fluoride, total	0.244 J	mg/L
OM07	Compliance	R2	05/17/2023	Lead, total	0.00750	mg/L
OM07	Compliance	R2	05/17/2023	Lithium, total	0.0066 J	mg/L
OM07	Compliance	R2	05/17/2023	Mercury, total	0.00014 U	mg/L
OM07	Compliance	R2	05/17/2023	Molybdenum, total	0.0110	mg/L
OM07	Compliance	R2	05/17/2023	Oxidation Reduction Potential	114	mV
OM07	Compliance	R2	05/17/2023	pH (field)	6.9	SU
OM07	Compliance	R2	05/17/2023	Radium 226 + Radium 228, total	0.643	pCi/L
OM07	Compliance	R2	05/17/2023	Selenium, total	0.00074 U	mg/L
OM07	Compliance	R2	05/17/2023	Specific Conductance @ 25C (field)	1,080	micromhos/cm
OM07	Compliance	R2	05/17/2023	Sulfate, total	190	mg/L
OM07	Compliance	R2	05/17/2023	Temperature (Celsius)	15.9	degrees C
OM07	Compliance	R2	05/17/2023	Thallium, total	0.00038 U	mg/L
OM07	Compliance	R2	05/17/2023	Total Dissolved Solids	700	mg/L
OM07	Compliance	R2	05/17/2023	Turbidity, field	125	NTU
OM12	Compliance	R2	05/15/2023	Antimony, total	0.0017 J	mg/L
OM12	Compliance	R2	05/15/2023	Arsenic, total	0.0260	mg/L
OM12	Compliance	R2	05/15/2023	Barium, total	0.280	mg/L
OM12	Compliance	R2	05/15/2023	Beryllium, total	0.00059 U	mg/L
OM12	Compliance	R2	05/15/2023	Boron, total	0.0930 J+	mg/L
OM12	Compliance	R2	05/15/2023	Cadmium, total	0.00074 U	mg/L
OM12	Compliance	R2	05/15/2023	Calcium, total	310	mg/L
OM12	Compliance	R2	05/15/2023	Chloride, total	4.8 U	mg/L
OM12	Compliance	R2	05/15/2023	Chromium, total	0.00870	mg/L
OM12	Compliance	R2	05/15/2023	Cobalt, total	0.00320	mg/L
OM12	Compliance	R2	05/15/2023	Dissolved Oxygen	0.850	mg/L
OM12	Compliance	R2	05/15/2023	Fluoride, total	0.215 J	mg/L
OM12	Compliance	R2	05/15/2023	Lead, total	0.00410	mg/L
OM12	Compliance	R2	05/15/2023	Lithium, total	0.005 U	mg/L
OM12	Compliance	R2	05/15/2023	Mercury, total	0.00014 U	mg/L
OM12	Compliance	R2	05/15/2023	Molybdenum, total	0.00390 J+	mg/L
OM12	Compliance	R2	05/15/2023	Oxidation Reduction Potential	-56.5	mV
OM12	Compliance	R2	05/15/2023	pH (field)	6.7	SU
OM12	Compliance	R2	05/15/2023	Radium 226 + Radium 228, total	1.69	pCi/L
OM12	Compliance	R2	05/15/2023	Selenium, total	0.00074 U	mg/L
OM12	Compliance	R2	05/15/2023	Specific Conductance @ 25C (field)	2,034	micromhos/cm
OM12	Compliance	R2	05/15/2023	Sulfate, total	430	mg/L
OM12	Compliance	R2	05/15/2023	Temperature (Celsius)	16.5	degrees C
OM12	Compliance	R2	05/15/2023	Thallium, total	0.00038 U	mg/L
OM12	Compliance	R2	05/15/2023	Total Dissolved Solids	1,500	mg/L
OM12	Compliance	R2	05/15/2023	Turbidity, field	186	NTU
OM21	Compliance	R2	05/15/2023	Antimony, total	0.00043 U	mg/L
OM21	Compliance	R2	05/15/2023	Arsenic, total	0.00270	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM21	Compliance	R2	05/15/2023	Barium, total	0.0210 J+	mg/L
OM21	Compliance	R2	05/15/2023	Beryllium, total	0.00059 U	mg/L
OM21	Compliance	R2	05/15/2023	Boron, total	11.0	mg/L
OM21	Compliance	R2	05/15/2023	Cadmium, total	0.00074 U	mg/L
OM21	Compliance	R2	05/15/2023	Calcium, total	430	mg/L
OM21	Compliance	R2	05/15/2023	Chloride, total	220	mg/L
OM21	Compliance	R2	05/15/2023	Chromium, total	0.0035 J	mg/L
OM21	Compliance	R2	05/15/2023	Cobalt, total	0.00048 U	mg/L
OM21	Compliance	R2	05/15/2023	Dissolved Oxygen	1.70	mg/L
OM21	Compliance	R2	05/15/2023	Fluoride, total	0.238 J	mg/L
OM21	Compliance	R2	05/15/2023	Lead, total	0.00043 J	mg/L
OM21	Compliance	R2	05/15/2023	Lithium, total	0.0320	mg/L
OM21	Compliance	R2	05/15/2023	Mercury, total	0.00014 U	mg/L
OM21	Compliance	R2	05/15/2023	Molybdenum, total	0.00160 J+	mg/L
OM21	Compliance	R2	05/15/2023	Oxidation Reduction Potential	-29.0	mV
OM21	Compliance	R2	05/15/2023	pH (field)	6.5	SU
OM21	Compliance	R2	05/15/2023	Radium 226 + Radium 228, total	1.53	pCi/L
OM21	Compliance	R2	05/15/2023	Selenium, total	0.00074 U	mg/L
OM21	Compliance	R2	05/15/2023	Specific Conductance @ 25C (field)	3,620	micromhos/cm
OM21	Compliance	R2	05/15/2023	Sulfate, total	1,200	mg/L
OM21	Compliance	R2	05/15/2023	Temperature (Celsius)	13.6	degrees C
OM21	Compliance	R2	05/15/2023	Thallium, total	0.00038 U	mg/L
OM21	Compliance	R2	05/15/2023	Total Dissolved Solids	2,800	mg/L
OM21	Compliance	R2	05/15/2023	Turbidity, field	118	NTU
OM22D	Compliance	R2	05/17/2023	Antimony, total	0.00069 J	mg/L
OM22D	Compliance	R2	05/17/2023	Arsenic, total	0.0150	mg/L
OM22D	Compliance	R2	05/17/2023	Barium, total	0.240	mg/L
OM22D	Compliance	R2	05/17/2023	Beryllium, total	0.012 U	mg/L
OM22D	Compliance	R2	05/17/2023	Boron, total	55.0	mg/L
OM22D	Compliance	R2	05/17/2023	Cadmium, total	0.00074 U	mg/L
OM22D	Compliance	R2	05/17/2023	Calcium, total	610	mg/L
OM22D	Compliance	R2	05/17/2023	Chloride, total	890	mg/L
OM22D	Compliance	R2	05/17/2023	Chromium, total	0.0390	mg/L
OM22D	Compliance	R2	05/17/2023	Cobalt, total	0.0220	mg/L
OM22D	Compliance	R2	05/17/2023	Dissolved Oxygen	1.00	mg/L
OM22D	Compliance	R2	05/17/2023	Fluoride, total	0.2 J	mg/L
OM22D	Compliance	R2	05/17/2023	Lead, total	0.0170	mg/L
OM22D	Compliance	R2	05/17/2023	Lithium, total	0.0700	mg/L
OM22D	Compliance	R2	05/17/2023	Mercury, total	0.00014 U	mg/L
OM22D	Compliance	R2	05/17/2023	Molybdenum, total	0.100	mg/L
OM22D	Compliance	R2	05/17/2023	Oxidation Reduction Potential	33.0	mV
OM22D	Compliance	R2	05/17/2023	pH (field)	6.7	SU
OM22D	Compliance	R2	05/17/2023	Radium 226 + Radium 228, total	1.54	pCi/L
OM22D	Compliance	R2	05/17/2023	Selenium, total	0.00096 J	mg/L
OM22D	Compliance	R2	05/17/2023	Specific Conductance @ 25C (field)	3,600	micromhos/cm
OM22D	Compliance	R2	05/17/2023	Sulfate, total	760	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM22D	Compliance	R2	05/17/2023	Temperature (Celsius)	14.5	degrees C
OM22D	Compliance	R2	05/17/2023	Thallium, total	0.00038 U	mg/L
OM22D	Compliance	R2	05/17/2023	Total Dissolved Solids	3,300	mg/L
OM22D	Compliance	R2	05/17/2023	Turbidity, field	1,000	NTU
OM23D	Compliance	R2	05/15/2023	Antimony, total	0.0013 J	mg/L
OM23D	Compliance	R2	05/15/2023	Arsenic, total	0.00180	mg/L
OM23D	Compliance	R2	05/15/2023	Barium, total	0.0300 J+	mg/L
OM23D	Compliance	R2	05/15/2023	Beryllium, total	0.00059 U	mg/L
OM23D	Compliance	R2	05/15/2023	Boron, total	1.90	mg/L
OM23D	Compliance	R2	05/15/2023	Cadmium, total	0.00074 U	mg/L
OM23D	Compliance	R2	05/15/2023	Calcium, total	170	mg/L
OM23D	Compliance	R2	05/15/2023	Chloride, total	24.0	mg/L
OM23D	Compliance	R2	05/15/2023	Chromium, total	0.0036 J	mg/L
OM23D	Compliance	R2	05/15/2023	Cobalt, total	0.00098 J	mg/L
OM23D	Compliance	R2	05/15/2023	Dissolved Oxygen	2.20	mg/L
OM23D	Compliance	R2	05/15/2023	Fluoride, total	0.196 J	mg/L
OM23D	Compliance	R2	05/15/2023	Lead, total	0.00100	mg/L
OM23D	Compliance	R2	05/15/2023	Lithium, total	0.0360	mg/L
OM23D	Compliance	R2	05/15/2023	Mercury, total	0.00014 U	mg/L
OM23D	Compliance	R2	05/15/2023	Molybdenum, total	0.00240 J+	mg/L
OM23D	Compliance	R2	05/15/2023	Oxidation Reduction Potential	-25.0	mV
OM23D	Compliance	R2	05/15/2023	pH (field)	7.1	SU
OM23D	Compliance	R2	05/15/2023	Radium 226 + Radium 228, total	0.174	pCi/L
OM23D	Compliance	R2	05/15/2023	Selenium, total	0.00074 U	mg/L
OM23D	Compliance	R2	05/15/2023	Specific Conductance @ 25C (field)	1,670	micromhos/cm
OM23D	Compliance	R2	05/15/2023	Sulfate, total	380	mg/L
OM23D	Compliance	R2	05/15/2023	Temperature (Celsius)	13.1	degrees C
OM23D	Compliance	R2	05/15/2023	Thallium, total	0.00038 U	mg/L
OM23D	Compliance	R2	05/15/2023	Total Dissolved Solids	1,200	mg/L
OM23D	Compliance	R2	05/15/2023	Turbidity, field	75.3	NTU
OM24D	Compliance	R2	05/16/2023	Antimony, total	0.00043 U	mg/L
OM24D	Compliance	R2	05/16/2023	Arsenic, total	0.0120	mg/L
OM24D	Compliance	R2	05/16/2023	Barium, total	0.0200	mg/L
OM24D	Compliance	R2	05/16/2023	Beryllium, total	0.001 U	mg/L
OM24D	Compliance	R2	05/16/2023	Boron, total	22.0	mg/L
OM24D	Compliance	R2	05/16/2023	Cadmium, total	0.00074 U	mg/L
OM24D	Compliance	R2	05/16/2023	Calcium, total	410	mg/L
OM24D	Compliance	R2	05/16/2023	Chloride, total	370	mg/L
OM24D	Compliance	R2	05/16/2023	Chromium, total	0.0028 J	mg/L
OM24D	Compliance	R2	05/16/2023	Cobalt, total	0.00048 U	mg/L
OM24D	Compliance	R2	05/16/2023	Dissolved Oxygen	1.20	mg/L
OM24D	Compliance	R2	05/16/2023	Fluoride, total	0.354	mg/L
OM24D	Compliance	R2	05/16/2023	Lead, total	0.00082 J	mg/L
OM24D	Compliance	R2	05/16/2023	Lithium, total	0.0094 J	mg/L
OM24D	Compliance	R2	05/16/2023	Mercury, total	0.00014 U	mg/L
OM24D	Compliance	R2	05/16/2023	Molybdenum, total	0.00570 J+	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM24D	Compliance	R2	05/16/2023	Oxidation Reduction Potential	-17.0	mV
OM24D	Compliance	R2	05/16/2023	pH (field)	6.8	SU
OM24D	Compliance	R2	05/16/2023	Radium 226 + Radium 228, total	0.290	pCi/L
OM24D	Compliance	R2	05/16/2023	Selenium, total	0.00074 U	mg/L
OM24D	Compliance	R2	05/16/2023	Specific Conductance @ 25C (field)	3,005	micromhos/cm
OM24D	Compliance	R2	05/16/2023	Sulfate, total	830	mg/L
OM24D	Compliance	R2	05/16/2023	Temperature (Celsius)	19.1	degrees C
OM24D	Compliance	R2	05/16/2023	Thallium, total	0.00038 U	mg/L
OM24D	Compliance	R2	05/16/2023	Total Dissolved Solids	2,300 J	mg/L
OM24D	Compliance	R2	05/16/2023	Turbidity, field	639	NTU
OM25S	Compliance	R2	05/15/2023	Antimony, total	0.0013 J	mg/L
OM25S	Compliance	R2	05/15/2023	Arsenic, total	0.0450	mg/L
OM25S	Compliance	R2	05/15/2023	Barium, total	0.400	mg/L
OM25S	Compliance	R2	05/15/2023	Beryllium, total	0.00450	mg/L
OM25S	Compliance	R2	05/15/2023	Boron, total	28.0	mg/L
OM25S	Compliance	R2	05/15/2023	Cadmium, total	0.00074 U	mg/L
OM25S	Compliance	R2	05/15/2023	Calcium, total	460	mg/L
OM25S	Compliance	R2	05/15/2023	Chloride, total	560	mg/L
OM25S	Compliance	R2	05/15/2023	Chromium, total	0.130	mg/L
OM25S	Compliance	R2	05/15/2023	Cobalt, total	0.0780	mg/L
OM25S	Compliance	R2	05/15/2023	Dissolved Oxygen	5.30	mg/L
OM25S	Compliance	R2	05/15/2023	Fluoride, total	0.378	mg/L
OM25S	Compliance	R2	05/15/2023	Lead, total	0.0820	mg/L
OM25S	Compliance	R2	05/15/2023	Lithium, total	0.180	mg/L
OM25S	Compliance	R2	05/15/2023	Mercury, total	0.00015 J	mg/L
OM25S	Compliance	R2	05/15/2023	Molybdenum, total	0.00800 J+	mg/L
OM25S	Compliance	R2	05/15/2023	Oxidation Reduction Potential	2.00	mV
OM25S	Compliance	R2	05/15/2023	pH (field)	6.9	SU
OM25S	Compliance	R2	05/15/2023	Radium 226 + Radium 228, total	27.8	pCi/L
OM25S	Compliance	R2	05/15/2023	Selenium, total	0.00400	mg/L
OM25S	Compliance	R2	05/15/2023	Specific Conductance @ 25C (field)	3,280	micromhos/cm
OM25S	Compliance	R2	05/15/2023	Sulfate, total	690	mg/L
OM25S	Compliance	R2	05/15/2023	Temperature (Celsius)	13.5	degrees C
OM25S	Compliance	R2	05/15/2023	Thallium, total	0.00052 J	mg/L
OM25S	Compliance	R2	05/15/2023	Total Dissolved Solids	2,700	mg/L
OM25S	Compliance	R2	05/15/2023	Turbidity, field	726	NTU
OR02	Compliance	R2	05/16/2023	Antimony, total	0.00058 J	mg/L
OR02	Compliance	R2	05/16/2023	Arsenic, total	0.0270	mg/L
OR02	Compliance	R2	05/16/2023	Barium, total	0.110	mg/L
OR02	Compliance	R2	05/16/2023	Beryllium, total	0.001 U	mg/L
OR02	Compliance	R2	05/16/2023	Boron, total	4.90	mg/L
OR02	Compliance	R2	05/16/2023	Cadmium, total	0.00074 U	mg/L
OR02	Compliance	R2	05/16/2023	Calcium, total	240	mg/L
OR02	Compliance	R2	05/16/2023	Chloride, total	210	mg/L
OR02	Compliance	R2	05/16/2023	Chromium, total	0.0140	mg/L
OR02	Compliance	R2	05/16/2023	Cobalt, total	0.0100	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR02	Compliance	R2	05/16/2023	Dissolved Oxygen	8.40	mg/L
OR02	Compliance	R2	05/16/2023	Fluoride, total	0.198 J	mg/L
OR02	Compliance	R2	05/16/2023	Lead, total	0.0160	mg/L
OR02	Compliance	R2	05/16/2023	Lithium, total	0.015 J	mg/L
OR02	Compliance	R2	05/16/2023	Mercury, total	0.00014 U	mg/L
OR02	Compliance	R2	05/16/2023	Molybdenum, total	0.00720 J+	mg/L
OR02	Compliance	R2	05/16/2023	Oxidation Reduction Potential	-17.0	mV
OR02	Compliance	R2	05/16/2023	pH (field)	6.6	SU
OR02	Compliance	R2	05/16/2023	Radium 226 + Radium 228, total	1.68	pCi/L
OR02	Compliance	R2	05/16/2023	Selenium, total	0.00110	mg/L
OR02	Compliance	R2	05/16/2023	Specific Conductance @ 25C (field)	2,000	micromhos/cm
OR02	Compliance	R2	05/16/2023	Sulfate, total	270	mg/L
OR02	Compliance	R2	05/16/2023	Temperature (Celsius)	17.3	degrees C
OR02	Compliance	R2	05/16/2023	Thallium, total	0.00038 U	mg/L
OR02	Compliance	R2	05/16/2023	Total Dissolved Solids	1,300 J	mg/L
OR02	Compliance	R2	05/16/2023	Turbidity, field	1,000	NTU
OR03D	Compliance	R2	05/16/2023	Antimony, total	0.00043 U	mg/L
OR03D	Compliance	R2	05/16/2023	Arsenic, total	0.00240 J+	mg/L
OR03D	Compliance	R2	05/16/2023	Barium, total	0.0490	mg/L
OR03D	Compliance	R2	05/16/2023	Beryllium, total	0.001 U	mg/L
OR03D	Compliance	R2	05/16/2023	Boron, total	19.0	mg/L
OR03D	Compliance	R2	05/16/2023	Cadmium, total	0.00074 U	mg/L
OR03D	Compliance	R2	05/16/2023	Calcium, total	310	mg/L
OR03D	Compliance	R2	05/16/2023	Chloride, total	450	mg/L
OR03D	Compliance	R2	05/16/2023	Chromium, total	0.0028 U	mg/L
OR03D	Compliance	R2	05/16/2023	Cobalt, total	0.00210	mg/L
OR03D	Compliance	R2	05/16/2023	Dissolved Oxygen	2.00	mg/L
OR03D	Compliance	R2	05/16/2023	Fluoride, total	0.270	mg/L
OR03D	Compliance	R2	05/16/2023	Lead, total	0.00120	mg/L
OR03D	Compliance	R2	05/16/2023	Lithium, total	0.0300	mg/L
OR03D	Compliance	R2	05/16/2023	Mercury, total	0.00014 U	mg/L
OR03D	Compliance	R2	05/16/2023	Molybdenum, total	0.00390 J+	mg/L
OR03D	Compliance	R2	05/16/2023	Oxidation Reduction Potential	-13.0	mV
OR03D	Compliance	R2	05/16/2023	pH (field)	6.7	SU
OR03D	Compliance	R2	05/16/2023	Radium 226 + Radium 228, total	1.21	pCi/L
OR03D	Compliance	R2	05/16/2023	Selenium, total	0.00074 U	mg/L
OR03D	Compliance	R2	05/16/2023	Specific Conductance @ 25C (field)	3,070	micromhos/cm
OR03D	Compliance	R2	05/16/2023	Sulfate, total	420	mg/L
OR03D	Compliance	R2	05/16/2023	Temperature (Celsius)	17.0	degrees C
OR03D	Compliance	R2	05/16/2023	Thallium, total	0.00038 U	mg/L
OR03D	Compliance	R2	05/16/2023	Total Dissolved Solids	2,900 J	mg/L
OR03D	Compliance	R2	05/16/2023	Turbidity, field	41.0	NTU
OR04D	Compliance	R2	05/16/2023	Antimony, total	0.00043 U	mg/L
OR04D	Compliance	R2	05/16/2023	Arsenic, total	0.00280 J+	mg/L
OR04D	Compliance	R2	05/16/2023	Barium, total	0.0390	mg/L
OR04D	Compliance	R2	05/16/2023	Beryllium, total	0.001 U	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR04D	Compliance	R2	05/16/2023	Boron, total	92.0	mg/L
OR04D	Compliance	R2	05/16/2023	Cadmium, total	0.00074 U	mg/L
OR04D	Compliance	R2	05/16/2023	Calcium, total	730	mg/L
OR04D	Compliance	R2	05/16/2023	Chloride, total	1,100	mg/L
OR04D	Compliance	R2	05/16/2023	Chromium, total	0.00490	mg/L
OR04D	Compliance	R2	05/16/2023	Cobalt, total	0.0015 J	mg/L
OR04D	Compliance	R2	05/16/2023	Dissolved Oxygen	1.10	mg/L
OR04D	Compliance	R2	05/16/2023	Fluoride, total	0.233 J	mg/L
OR04D	Compliance	R2	05/16/2023	Lead, total	0.00140	mg/L
OR04D	Compliance	R2	05/16/2023	Lithium, total	0.0590	mg/L
OR04D	Compliance	R2	05/16/2023	Mercury, total	0.00014 U	mg/L
OR04D	Compliance	R2	05/16/2023	Molybdenum, total	0.00450 J+	mg/L
OR04D	Compliance	R2	05/16/2023	Oxidation Reduction Potential	-15.4	mV
OR04D	Compliance	R2	05/16/2023	pH (field)	6.6	SU
OR04D	Compliance	R2	05/16/2023	Radium 226 + Radium 228, total	2.39	pCi/L
OR04D	Compliance	R2	05/16/2023	Selenium, total	0.00074 U	mg/L
OR04D	Compliance	R2	05/16/2023	Specific Conductance @ 25C (field)	5,865	micromhos/cm
OR04D	Compliance	R2	05/16/2023	Sulfate, total	1,100	mg/L
OR04D	Compliance	R2	05/16/2023	Temperature (Celsius)	17.0	degrees C
OR04D	Compliance	R2	05/16/2023	Thallium, total	0.00038 U	mg/L
OR04D	Compliance	R2	05/16/2023	Total Dissolved Solids	4,200 J	mg/L
OR04D	Compliance	R2	05/16/2023	Turbidity, field	221	NTU
OR06A	Compliance	R2	05/17/2023	Antimony, total	0.00043 U	mg/L
OR06A	Compliance	R2	05/17/2023	Arsenic, total	0.00930	mg/L
OR06A	Compliance	R2	05/17/2023	Barium, total	0.0590	mg/L
OR06A	Compliance	R2	05/17/2023	Beryllium, total	0.00059 U	mg/L
OR06A	Compliance	R2	05/17/2023	Boron, total	67.0	mg/L
OR06A	Compliance	R2	05/17/2023	Cadmium, total	0.00074 U	mg/L
OR06A	Compliance	R2	05/17/2023	Calcium, total	510	mg/L
OR06A	Compliance	R2	05/17/2023	Chloride, total	590	mg/L
OR06A	Compliance	R2	05/17/2023	Chromium, total	0.00540	mg/L
OR06A	Compliance	R2	05/17/2023	Cobalt, total	0.00330	mg/L
OR06A	Compliance	R2	05/17/2023	Dissolved Oxygen	1.10	mg/L
OR06A	Compliance	R2	05/17/2023	Fluoride, total	0.134 J	mg/L
OR06A	Compliance	R2	05/17/2023	Lead, total	0.00210	mg/L
OR06A	Compliance	R2	05/17/2023	Lithium, total	0.0087 J	mg/L
OR06A	Compliance	R2	05/17/2023	Mercury, total	0.00014 U	mg/L
OR06A	Compliance	R2	05/17/2023	Molybdenum, total	0.0660	mg/L
OR06A	Compliance	R2	05/17/2023	Oxidation Reduction Potential	-1.00	mV
OR06A	Compliance	R2	05/17/2023	pH (field)	6.6	SU
OR06A	Compliance	R2	05/17/2023	Radium 226 + Radium 228, total	1.34	pCi/L
OR06A	Compliance	R2	05/17/2023	Selenium, total	0.00074 U	mg/L
OR06A	Compliance	R2	05/17/2023	Specific Conductance @ 25C (field)	2,510	micromhos/cm
OR06A	Compliance	R2	05/17/2023	Sulfate, total	700	mg/L
OR06A	Compliance	R2	05/17/2023	Temperature (Celsius)	15.8	degrees C
OR06A	Compliance	R2	05/17/2023	Thallium, total	0.00038 U	mg/L

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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR06A	Compliance	R2	05/17/2023	Total Dissolved Solids	2,700	mg/L
OR06A	Compliance	R2	05/17/2023	Turbidity, field	444	NTU
OR11	Compliance	R2	05/15/2023	Antimony, total	0.00043 U	mg/L
OR11	Compliance	R2	05/15/2023	Arsenic, total	0.00260	mg/L
OR11	Compliance	R2	05/15/2023	Barium, total	0.0500 J+	mg/L
OR11	Compliance	R2	05/15/2023	Beryllium, total	0.00059 U	mg/L
OR11	Compliance	R2	05/15/2023	Boron, total	7.20	mg/L
OR11	Compliance	R2	05/15/2023	Cadmium, total	0.00074 U	mg/L
OR11	Compliance	R2	05/15/2023	Calcium, total	150	mg/L
OR11	Compliance	R2	05/15/2023	Chloride, total	63.0	mg/L
OR11	Compliance	R2	05/15/2023	Chromium, total	0.00440	mg/L
OR11	Compliance	R2	05/15/2023	Cobalt, total	0.0014 J	mg/L
OR11	Compliance	R2	05/15/2023	Dissolved Oxygen	1.10	mg/L
OR11	Compliance	R2	05/15/2023	Fluoride, total	0.234 J	mg/L
OR11	Compliance	R2	05/15/2023	Lead, total	0.00180	mg/L
OR11	Compliance	R2	05/15/2023	Lithium, total	0.014 J	mg/L
OR11	Compliance	R2	05/15/2023	Mercury, total	0.00014 U	mg/L
OR11	Compliance	R2	05/15/2023	Molybdenum, total	0.00890 J+	mg/L
OR11	Compliance	R2	05/15/2023	Oxidation Reduction Potential	-11.6	mV
OR11	Compliance	R2	05/15/2023	pH (field)	7.0	SU
OR11	Compliance	R2	05/15/2023	Radium 226 + Radium 228, total	0.494	pCi/L
OR11	Compliance	R2	05/15/2023	Selenium, total	0.00074 U	mg/L
OR11	Compliance	R2	05/15/2023	Specific Conductance @ 25C (field)	1,068	micromhos/cm
OR11	Compliance	R2	05/15/2023	Sulfate, total	150	mg/L
OR11	Compliance	R2	05/15/2023	Temperature (Celsius)	16.2	degrees C
OR11	Compliance	R2	05/15/2023	Thallium, total	0.00038 U	mg/L
OR11	Compliance	R2	05/15/2023	Total Dissolved Solids	790	mg/L
OR11	Compliance	R2	05/15/2023	Turbidity, field	217	NTU
OR13S	Compliance	R2	05/17/2023	Antimony, total	0.00043 U	mg/L
OR13S	Compliance	R2	05/17/2023	Arsenic, total	0.00850	mg/L
OR13S	Compliance	R2	05/17/2023	Barium, total	0.0250	mg/L
OR13S	Compliance	R2	05/17/2023	Beryllium, total	0.00059 U	mg/L
OR13S	Compliance	R2	05/17/2023	Boron, total	3.70	mg/L
OR13S	Compliance	R2	05/17/2023	Cadmium, total	0.00074 U	mg/L
OR13S	Compliance	R2	05/17/2023	Calcium, total	330	mg/L
OR13S	Compliance	R2	05/17/2023	Chloride, total	38.0	mg/L
OR13S	Compliance	R2	05/17/2023	Chromium, total	0.0028 U	mg/L
OR13S	Compliance	R2	05/17/2023	Cobalt, total	0.0011 J	mg/L
OR13S	Compliance	R2	05/17/2023	Dissolved Oxygen	1.90	mg/L
OR13S	Compliance	R2	05/17/2023	Fluoride, total	0.245 J	mg/L
OR13S	Compliance	R2	05/17/2023	Lead, total	0.00022 U	mg/L
OR13S	Compliance	R2	05/17/2023	Lithium, total	0.016 J	mg/L
OR13S	Compliance	R2	05/17/2023	Mercury, total	0.00014 U	mg/L
OR13S	Compliance	R2	05/17/2023	Molybdenum, total	0.00810	mg/L
OR13S	Compliance	R2	05/17/2023	Oxidation Reduction Potential	-23.0	mV
OR13S	Compliance	R2	05/17/2023	pH (field)	6.8	SU

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR13S	Compliance	R2	05/17/2023	Radium 226 + Radium 228, total	0.320	pCi/L
OR13S	Compliance	R2	05/17/2023	Selenium, total	0.00074 U	mg/L
OR13S	Compliance	R2	05/17/2023	Specific Conductance @ 25C (field)	1,960	micromhos/cm
OR13S	Compliance	R2	05/17/2023	Sulfate, total	860	mg/L
OR13S	Compliance	R2	05/17/2023	Temperature (Celsius)	16.3	degrees C
OR13S	Compliance	R2	05/17/2023	Thallium, total	0.00038 U	mg/L
OR13S	Compliance	R2	05/17/2023	Total Dissolved Solids	1,800	mg/L
OR13S	Compliance	R2	05/17/2023	Turbidity, field	56.1	NTU
OR13D	Compliance	R2	05/10/2023	Antimony, total	0.00043 U	mg/L
OR13D	Compliance	R2	05/10/2023	Arsenic, total	0.0280	mg/L
OR13D	Compliance	R2	05/10/2023	Barium, total	0.0650	mg/L
OR13D	Compliance	R2	05/10/2023	Beryllium, total	0.001 U	mg/L
OR13D	Compliance	R2	05/10/2023	Boron, total	1.70	mg/L
OR13D	Compliance	R2	05/10/2023	Cadmium, total	0.00074 U	mg/L
OR13D	Compliance	R2	05/10/2023	Calcium, total	120	mg/L
OR13D	Compliance	R2	05/10/2023	Chloride, total	42.0	mg/L
OR13D	Compliance	R2	05/10/2023	Chromium, total	0.0130	mg/L
OR13D	Compliance	R2	05/10/2023	Cobalt, total	0.00360	mg/L
OR13D	Compliance	R2	05/10/2023	Dissolved Oxygen	1.50	mg/L
OR13D	Compliance	R2	05/10/2023	Fluoride, total	0.269	mg/L
OR13D	Compliance	R2	05/10/2023	Lead, total	0.00570	mg/L
OR13D	Compliance	R2	05/10/2023	Lithium, total	0.0300	mg/L
OR13D	Compliance	R2	05/10/2023	Mercury, total	0.00014 U	mg/L
OR13D	Compliance	R2	05/10/2023	Molybdenum, total	0.00860 J+	mg/L
OR13D	Compliance	R2	05/10/2023	Oxidation Reduction Potential	-60.0	mV
OR13D	Compliance	R2	05/10/2023	pH (field)	6.9	SU
OR13D	Compliance	R2	05/10/2023	Radium 226 + Radium 228, total	0.853	pCi/L
OR13D	Compliance	R2	05/10/2023	Selenium, total	0.00091 J	mg/L
OR13D	Compliance	R2	05/10/2023	Specific Conductance @ 25C (field)	1,610	micromhos/cm
OR13D	Compliance	R2	05/10/2023	Sulfate, total	300	mg/L
OR13D	Compliance	R2	05/10/2023	Temperature (Celsius)	22.2	degrees C
OR13D	Compliance	R2	05/10/2023	Thallium, total	0.00038 U	mg/L
OR13D	Compliance	R2	05/10/2023	Total Dissolved Solids	1,300 J	mg/L
OR13D	Compliance	R2	05/10/2023	Turbidity, field	1,000	NTU
OR14D	Compliance	R2	05/15/2023	Antimony, total	0.00043 U	mg/L
OR14D	Compliance	R2	05/15/2023	Arsenic, total	0.00540	mg/L
OR14D	Compliance	R2	05/15/2023	Barium, total	0.0310 J+	mg/L
OR14D	Compliance	R2	05/15/2023	Beryllium, total	0.00059 U	mg/L
OR14D	Compliance	R2	05/15/2023	Boron, total	20.0	mg/L
OR14D	Compliance	R2	05/15/2023	Cadmium, total	0.00074 U	mg/L
OR14D	Compliance	R2	05/15/2023	Calcium, total	430	mg/L
OR14D	Compliance	R2	05/15/2023	Chloride, total	270	mg/L
OR14D	Compliance	R2	05/15/2023	Chromium, total	0.00490	mg/L
OR14D	Compliance	R2	05/15/2023	Cobalt, total	0.0016 J	mg/L
OR14D	Compliance	R2	05/15/2023	Dissolved Oxygen	5.00	mg/L
OR14D	Compliance	R2	05/15/2023	Fluoride, total	0.219 J	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR14D	Compliance	R2	05/15/2023	Lead, total	0.00320	mg/L
OR14D	Compliance	R2	05/15/2023	Lithium, total	0.0200	mg/L
OR14D	Compliance	R2	05/15/2023	Mercury, total	0.00014 U	mg/L
OR14D	Compliance	R2	05/15/2023	Molybdenum, total	0.00600 J+	mg/L
OR14D	Compliance	R2	05/15/2023	Oxidation Reduction Potential	44.0	mV
OR14D	Compliance	R2	05/15/2023	pH (field)	6.5	SU
OR14D	Compliance	R2	05/15/2023	Radium 226 + Radium 228, total	0.199	pCi/L
OR14D	Compliance	R2	05/15/2023	Selenium, total	0.00074 U	mg/L
OR14D	Compliance	R2	05/15/2023	Specific Conductance @ 25C (field)	2,630	micromhos/cm
OR14D	Compliance	R2	05/15/2023	Sulfate, total	850	mg/L
OR14D	Compliance	R2	05/15/2023	Temperature (Celsius)	15.1	degrees C
OR14D	Compliance	R2	05/15/2023	Thallium, total	0.00038 U	mg/L
OR14D	Compliance	R2	05/15/2023	Total Dissolved Solids	2,200	mg/L
OR14D	Compliance	R2	05/15/2023	Turbidity, field	184	NTU
OR19	Compliance	R2	05/15/2023	Antimony, total	0.00043 U	mg/L
OR19	Compliance	R2	05/15/2023	Arsenic, total	0.00140	mg/L
OR19	Compliance	R2	05/15/2023	Barium, total	0.0250 J+	mg/L
OR19	Compliance	R2	05/15/2023	Beryllium, total	0.00059 U	mg/L
OR19	Compliance	R2	05/15/2023	Boron, total	17.0	mg/L
OR19	Compliance	R2	05/15/2023	Cadmium, total	0.00074 U	mg/L
OR19	Compliance	R2	05/15/2023	Calcium, total	330	mg/L
OR19	Compliance	R2	05/15/2023	Chloride, total	160	mg/L
OR19	Compliance	R2	05/15/2023	Chromium, total	0.0039 J	mg/L
OR19	Compliance	R2	05/15/2023	Cobalt, total	0.00048 U	mg/L
OR19	Compliance	R2	05/15/2023	Dissolved Oxygen	0.780	mg/L
OR19	Compliance	R2	05/15/2023	Fluoride, total	0.451	mg/L
OR19	Compliance	R2	05/15/2023	Lead, total	0.00085 J	mg/L
OR19	Compliance	R2	05/15/2023	Lithium, total	0.0200	mg/L
OR19	Compliance	R2	05/15/2023	Mercury, total	0.00014 U	mg/L
OR19	Compliance	R2	05/15/2023	Molybdenum, total	0.00370 J+	mg/L
OR19	Compliance	R2	05/15/2023	Oxidation Reduction Potential	-35.6	mV
OR19	Compliance	R2	05/15/2023	pH (field)	6.8	SU
OR19	Compliance	R2	05/15/2023	Radium 226 + Radium 228, total	0.849	pCi/L
OR19	Compliance	R2	05/15/2023	Selenium, total	0.00074 U	mg/L
OR19	Compliance	R2	05/15/2023	Specific Conductance @ 25C (field)	2,622	micromhos/cm
OR19	Compliance	R2	05/15/2023	Sulfate, total	940	mg/L
OR19	Compliance	R2	05/15/2023	Temperature (Celsius)	18.2	degrees C
OR19	Compliance	R2	05/15/2023	Thallium, total	0.00038 U	mg/L
OR19	Compliance	R2	05/15/2023	Total Dissolved Solids	2,400	mg/L
OR19	Compliance	R2	05/15/2023	Turbidity, field	356	NTU
OR20	Compliance	R2	05/15/2023	Antimony, total	0.00043 U	mg/L
OR20	Compliance	R2	05/15/2023	Arsenic, total	0.00790	mg/L
OR20	Compliance	R2	05/15/2023	Barium, total	0.0370 J+	mg/L
OR20	Compliance	R2	05/15/2023	Beryllium, total	0.00059 U	mg/L
OR20	Compliance	R2	05/15/2023	Boron, total	41.0	mg/L
OR20	Compliance	R2	05/15/2023	Cadmium, total	0.00074 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR20	Compliance	R2	05/15/2023	Calcium, total	250	mg/L
OR20	Compliance	R2	05/15/2023	Chloride, total	370	mg/L
OR20	Compliance	R2	05/15/2023	Chromium, total	0.00640	mg/L
OR20	Compliance	R2	05/15/2023	Cobalt, total	0.0014 J	mg/L
OR20	Compliance	R2	05/15/2023	Dissolved Oxygen	0.990	mg/L
OR20	Compliance	R2	05/15/2023	Fluoride, total	0.416	mg/L
OR20	Compliance	R2	05/15/2023	Lead, total	0.00160	mg/L
OR20	Compliance	R2	05/15/2023	Lithium, total	0.0400	mg/L
OR20	Compliance	R2	05/15/2023	Mercury, total	0.00014 U	mg/L
OR20	Compliance	R2	05/15/2023	Molybdenum, total	0.0390	mg/L
OR20	Compliance	R2	05/15/2023	Oxidation Reduction Potential	1.90	mV
OR20	Compliance	R2	05/15/2023	pH (field)	6.9	SU
OR20	Compliance	R2	05/15/2023	Radium 226 + Radium 228, total	0.127	pCi/L
OR20	Compliance	R2	05/15/2023	Selenium, total	0.00074 U	mg/L
OR20	Compliance	R2	05/15/2023	Specific Conductance @ 25C (field)	2,592	micromhos/cm
OR20	Compliance	R2	05/15/2023	Sulfate, total	430	mg/L
OR20	Compliance	R2	05/15/2023	Temperature (Celsius)	16.5	degrees C
OR20	Compliance	R2	05/15/2023	Thallium, total	0.00038 U	mg/L
OR20	Compliance	R2	05/15/2023	Total Dissolved Solids	1,800	mg/L
OR20	Compliance	R2	05/15/2023	Turbidity, field	170	NTU

Notes:
C = Celsius
cm = centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
SU = Standard Units
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 3, 2023
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
BA06	Background	R3	07/24/2023	Antimony, total	0.00043 U	mg/L
BA06	Background	R3	07/24/2023	Arsenic, total	0.00420	mg/L
BA06	Background	R3	07/24/2023	Barium, total	0.0930	mg/L
BA06	Background	R3	07/24/2023	Beryllium, total	0.00059 U	mg/L
BA06	Background	R3	07/24/2023	Boron, total	9.00	mg/L
BA06	Background	R3	07/24/2023	Cadmium, total	0.00074 U	mg/L
BA06	Background	R3	07/24/2023	Calcium, total	280	mg/L
BA06	Background	R3	07/24/2023	Chloride, total	560	mg/L
BA06	Background	R3	07/24/2023	Chromium, total	0.0028 U	mg/L
BA06	Background	R3	07/24/2023	Cobalt, total	0.00970	mg/L
BA06	Background	R3	07/24/2023	Dissolved Oxygen	2.50	mg/L
BA06	Background	R3	07/24/2023	Fluoride, total	0.264 J+	mg/L
BA06	Background	R3	07/24/2023	Lead, total	0.00022 U	mg/L
BA06	Background	R3	07/24/2023	Lithium, total	0.005 U	mg/L
BA06	Background	R3	07/24/2023	Mercury, total	0.00014 U	mg/L
BA06	Background	R3	07/24/2023	Molybdenum, total	0.00120	mg/L
BA06	Background	R3	07/24/2023	Oxidation Reduction Potential	-40.0	mV
BA06	Background	R3	07/24/2023	pH (field)	6.5	SU
BA06	Background	R3	07/24/2023	Radium 226 + Radium 228, total	0.223	pCi/L
BA06	Background	R3	07/24/2023	Selenium, total	0.00074 U	mg/L
BA06	Background	R3	07/24/2023	Specific Conductance @ 25C (field)	3,140	micromhos/cm
BA06	Background	R3	07/24/2023	Sulfate, total	360	mg/L
BA06	Background	R3	07/24/2023	Temperature (Celsius)	18.7	degrees C
BA06	Background	R3	07/24/2023	Thallium, total	0.00038 U	mg/L
BA06	Background	R3	07/24/2023	Total Dissolved Solids	2,300	mg/L
BA06	Background	R3	07/24/2023	Turbidity, field	5.30	NTU
OM16	Background	R3	07/24/2023	Antimony, total	0.00043 U	mg/L
OM16	Background	R3	07/24/2023	Arsenic, total	0.00140	mg/L
OM16	Background	R3	07/24/2023	Barium, total	0.0160	mg/L
OM16	Background	R3	07/24/2023	Beryllium, total	0.00059 U	mg/L
OM16	Background	R3	07/24/2023	Boron, total	0.0550 J+	mg/L
OM16	Background	R3	07/24/2023	Cadmium, total	0.00074 U	mg/L
OM16	Background	R3	07/24/2023	Calcium, total	480	mg/L
OM16	Background	R3	07/24/2023	Chloride, total	10.0	mg/L
OM16	Background	R3	07/24/2023	Chromium, total	0.0028 U	mg/L
OM16	Background	R3	07/24/2023	Cobalt, total	0.00270	mg/L
OM16	Background	R3	07/24/2023	Dissolved Oxygen	0.450	mg/L
OM16	Background	R3	07/24/2023	Fluoride, total	0.25 UJ	mg/L
OM16	Background	R3	07/24/2023	Lead, total	0.00055 J	mg/L
OM16	Background	R3	07/24/2023	Lithium, total	0.0310	mg/L
OM16	Background	R3	07/24/2023	Mercury, total	0.00014 U	mg/L
OM16	Background	R3	07/24/2023	Molybdenum, total	0.00074 U	mg/L
OM16	Background	R3	07/24/2023	Oxidation Reduction Potential	0.500	mV
OM16	Background	R3	07/24/2023	pH (field)	6.5	SU
OM16	Background	R3	07/24/2023	Radium 226 + Radium 228, total	0.642	pCi/L
OM16	Background	R3	07/24/2023	Selenium, total	0.00074 U	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM16	Background	R3	07/24/2023	Specific Conductance @ 25C (field)	3,986	micromhos/cm
OM16	Background	R3	07/24/2023	Sulfate, total	2,300	mg/L
OM16	Background	R3	07/24/2023	Temperature (Celsius)	17.9	degrees C
OM16	Background	R3	07/24/2023	Thallium, total	0.00038 U	mg/L
OM16	Background	R3	07/24/2023	Total Dissolved Solids	4,200	mg/L
OM16	Background	R3	07/24/2023	Turbidity, field	1,090	NTU
OM17	Background	R3	07/25/2023	Antimony, total	0.00082 UJ	mg/L
OM17	Background	R3	07/25/2023	Arsenic, total	0.0340	mg/L
OM17	Background	R3	07/25/2023	Barium, total	1.30	mg/L
OM17	Background	R3	07/25/2023	Beryllium, total	0.0160	mg/L
OM17	Background	R3	07/25/2023	Boron, total	0.470 J	mg/L
OM17	Background	R3	07/25/2023	Cadmium, total	0.00920	mg/L
OM17	Background	R3	07/25/2023	Calcium, total	290	mg/L
OM17	Background	R3	07/25/2023	Chloride, total	2.80	mg/L
OM17	Background	R3	07/25/2023	Chromium, total	0.440	mg/L
OM17	Background	R3	07/25/2023	Cobalt, total	0.240	mg/L
OM17	Background	R3	07/25/2023	Dissolved Oxygen	0.490	mg/L
OM17	Background	R3	07/25/2023	Fluoride, total	0.25 UJ	mg/L
OM17	Background	R3	07/25/2023	Lead, total	0.320	mg/L
OM17	Background	R3	07/25/2023	Lithium, total	0.400	mg/L
OM17	Background	R3	07/25/2023	Mercury, total	0.000830	mg/L
OM17	Background	R3	07/25/2023	Molybdenum, total	0.00630 J-	mg/L
OM17	Background	R3	07/25/2023	Oxidation Reduction Potential	-28.8	mV
OM17	Background	R3	07/25/2023	pH (field)	6.8	SU
OM17	Background	R3	07/25/2023	Radium 226 + Radium 228, total	17.5	pCi/L
OM17	Background	R3	07/25/2023	Selenium, total	0.0140 J-	mg/L
OM17	Background	R3	07/25/2023	Specific Conductance @ 25C (field)	1,092	micromhos/cm
OM17	Background	R3	07/25/2023	Sulfate, total	350	mg/L
OM17	Background	R3	07/25/2023	Temperature (Celsius)	19.4	degrees C
OM17	Background	R3	07/25/2023	Thallium, total	0.00340	mg/L
OM17	Background	R3	07/25/2023	Total Dissolved Solids	960	mg/L
OM17	Background	R3	07/25/2023	Turbidity, field	1,840	NTU
OM01	Compliance	R3	07/20/2023	Antimony, total	0.00043 U	mg/L
OM01	Compliance	R3	07/20/2023	Arsenic, total	0.00069 U	mg/L
OM01	Compliance	R3	07/20/2023	Barium, total	0.0190 J+	mg/L
OM01	Compliance	R3	07/20/2023	Beryllium, total	0.00059 U	mg/L
OM01	Compliance	R3	07/20/2023	Boron, total	0.210 J+	mg/L
OM01	Compliance	R3	07/20/2023	Cadmium, total	0.00074 U	mg/L
OM01	Compliance	R3	07/20/2023	Calcium, total	530	mg/L
OM01	Compliance	R3	07/20/2023	Chloride, total	36.0	mg/L
OM01	Compliance	R3	07/20/2023	Chromium, total	0.0028 U	mg/L
OM01	Compliance	R3	07/20/2023	Cobalt, total	0.0180	mg/L
OM01	Compliance	R3	07/20/2023	Dissolved Oxygen	1.40	mg/L
OM01	Compliance	R3	07/20/2023	Fluoride, total	0.151 J	mg/L
OM01	Compliance	R3	07/20/2023	Lead, total	0.001 UJ	mg/L
OM01	Compliance	R3	07/20/2023	Lithium, total	0.005 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM01	Compliance	R3	07/20/2023	Mercury, total	0.00014 U	mg/L
OM01	Compliance	R3	07/20/2023	Molybdenum, total	0.00074 U	mg/L
OM01	Compliance	R3	07/20/2023	Oxidation Reduction Potential	7.40	mV
OM01	Compliance	R3	07/20/2023	pH (field)	6.3	SU
OM01	Compliance	R3	07/20/2023	Radium 226 + Radium 228, total	0.714	pCi/L
OM01	Compliance	R3	07/20/2023	Selenium, total	0.00074 U	mg/L
OM01	Compliance	R3	07/20/2023	Specific Conductance @ 25C (field)	3,520	micromhos/cm
OM01	Compliance	R3	07/20/2023	Sulfate, total	2,000	mg/L
OM01	Compliance	R3	07/20/2023	Temperature (Celsius)	20.1	degrees C
OM01	Compliance	R3	07/20/2023	Thallium, total	0.00038 U	mg/L
OM01	Compliance	R3	07/20/2023	Total Dissolved Solids	3,700 J	mg/L
OM01	Compliance	R3	07/20/2023	Turbidity, field	89.6	NTU
OM04S	Compliance	R3	07/25/2023	Antimony, total	0.00043 U	mg/L
OM04S	Compliance	R3	07/25/2023	Arsenic, total	0.00069 U	mg/L
OM04S	Compliance	R3	07/25/2023	Barium, total	0.0510	mg/L
OM04S	Compliance	R3	07/25/2023	Beryllium, total	0.00059 U	mg/L
OM04S	Compliance	R3	07/25/2023	Boron, total	0.0640 J+	mg/L
OM04S	Compliance	R3	07/25/2023	Cadmium, total	0.00074 U	mg/L
OM04S	Compliance	R3	07/25/2023	Calcium, total	150	mg/L
OM04S	Compliance	R3	07/25/2023	Chloride, total	16.0	mg/L
OM04S	Compliance	R3	07/25/2023	Chromium, total	0.0028 U	mg/L
OM04S	Compliance	R3	07/25/2023	Cobalt, total	0.00890	mg/L
OM04S	Compliance	R3	07/25/2023	Dissolved Oxygen	0.960	mg/L
OM04S	Compliance	R3	07/25/2023	Fluoride, total	0.25 UJ	mg/L
OM04S	Compliance	R3	07/25/2023	Lead, total	0.00049 J	mg/L
OM04S	Compliance	R3	07/25/2023	Lithium, total	0.005 U	mg/L
OM04S	Compliance	R3	07/25/2023	Mercury, total	0.000220	mg/L
OM04S	Compliance	R3	07/25/2023	Molybdenum, total	0.00130	mg/L
OM04S	Compliance	R3	07/25/2023	Oxidation Reduction Potential	-1.90	mV
OM04S	Compliance	R3	07/25/2023	pH (field)	6.7	SU
OM04S	Compliance	R3	07/25/2023	Radium 226 + Radium 228, total	0.599	pCi/L
OM04S	Compliance	R3	07/25/2023	Selenium, total	0.00074 U	mg/L
OM04S	Compliance	R3	07/25/2023	Specific Conductance @ 25C (field)	1,208	micromhos/cm
OM04S	Compliance	R3	07/25/2023	Sulfate, total	150	mg/L
OM04S	Compliance	R3	07/25/2023	Temperature (Celsius)	21.2	degrees C
OM04S	Compliance	R3	07/25/2023	Thallium, total	0.00038 U	mg/L
OM04S	Compliance	R3	07/25/2023	Total Dissolved Solids	740	mg/L
OM04S	Compliance	R3	07/25/2023	Turbidity, field	122	NTU
OM07	Compliance	R3	07/26/2023	Antimony, total	0.00043 U	mg/L
OM07	Compliance	R3	07/26/2023	Arsenic, total	0.00250	mg/L
OM07	Compliance	R3	07/26/2023	Barium, total	0.100	mg/L
OM07	Compliance	R3	07/26/2023	Beryllium, total	0.00059 U	mg/L
OM07	Compliance	R3	07/26/2023	Boron, total	1.80	mg/L
OM07	Compliance	R3	07/26/2023	Cadmium, total	0.00074 U	mg/L
OM07	Compliance	R3	07/26/2023	Calcium, total	140	mg/L
OM07	Compliance	R3	07/27/2023	Chloride, total	12.0	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM07	Compliance	R3	07/26/2023	Chromium, total	0.0028 U	mg/L
OM07	Compliance	R3	07/26/2023	Cobalt, total	0.00680	mg/L
OM07	Compliance	R3	07/26/2023	Dissolved Oxygen	1.40	mg/L
OM07	Compliance	R3	07/27/2023	Fluoride, total	0.192 J	mg/L
OM07	Compliance	R3	07/26/2023	Lead, total	0.00130	mg/L
OM07	Compliance	R3	07/26/2023	Lithium, total	0.0051 J	mg/L
OM07	Compliance	R3	07/26/2023	Mercury, total	0.00014 U	mg/L
OM07	Compliance	R3	07/26/2023	Molybdenum, total	0.00130	mg/L
OM07	Compliance	R3	07/26/2023	Oxidation Reduction Potential	-22.2	mV
OM07	Compliance	R3	07/26/2023	pH (field)	6.9	SU
OM07	Compliance	R3	07/26/2023	Radium 226 + Radium 228, total	0.945	pCi/L
OM07	Compliance	R3	07/26/2023	Selenium, total	0.00074 U	mg/L
OM07	Compliance	R3	07/26/2023	Specific Conductance @ 25C (field)	1,101	micromhos/cm
OM07	Compliance	R3	07/27/2023	Sulfate, total	180	mg/L
OM07	Compliance	R3	07/26/2023	Temperature (Celsius)	21.8	degrees C
OM07	Compliance	R3	07/26/2023	Thallium, total	0.00038 U	mg/L
OM07	Compliance	R3	08/10/2023	Total Dissolved Solids	880	mg/L
OM07	Compliance	R3	07/26/2023	Turbidity, field	319	NTU
OM12	Compliance	R3	07/27/2023	Antimony, total	0.0021 J	mg/L
OM12	Compliance	R3	07/27/2023	Arsenic, total	0.0100	mg/L
OM12	Compliance	R3	07/27/2023	Barium, total	0.170	mg/L
OM12	Compliance	R3	07/27/2023	Beryllium, total	0.00059 U	mg/L
OM12	Compliance	R3	07/27/2023	Boron, total	0.0920 J+	mg/L
OM12	Compliance	R3	07/27/2023	Cadmium, total	0.00074 U	mg/L
OM12	Compliance	R3	07/27/2023	Calcium, total	300	mg/L
OM12	Compliance	R3	07/27/2023	Chloride, total	3.30	mg/L
OM12	Compliance	R3	07/27/2023	Chromium, total	0.0028 U	mg/L
OM12	Compliance	R3	07/27/2023	Cobalt, total	0.00087 J	mg/L
OM12	Compliance	R3	07/27/2023	Dissolved Oxygen	2.40	mg/L
OM12	Compliance	R3	07/27/2023	Fluoride, total	0.257	mg/L
OM12	Compliance	R3	07/27/2023	Lead, total	0.00150	mg/L
OM12	Compliance	R3	07/27/2023	Lithium, total	0.005 U	mg/L
OM12	Compliance	R3	07/27/2023	Mercury, total	0.00018 J	mg/L
OM12	Compliance	R3	07/27/2023	Molybdenum, total	0.00190	mg/L
OM12	Compliance	R3	07/27/2023	Oxidation Reduction Potential	-87.6	mV
OM12	Compliance	R3	07/27/2023	pH (field)	7.3	SU
OM12	Compliance	R3	07/27/2023	Radium 226 + Radium 228, total	0.943	pCi/L
OM12	Compliance	R3	07/27/2023	Selenium, total	0.00074 U	mg/L
OM12	Compliance	R3	07/27/2023	Specific Conductance @ 25C (field)	1,937	micromhos/cm
OM12	Compliance	R3	07/27/2023	Sulfate, total	460	mg/L
OM12	Compliance	R3	07/27/2023	Temperature (Celsius)	20.0	degrees C
OM12	Compliance	R3	07/27/2023	Thallium, total	0.00038 U	mg/L
OM12	Compliance	R3	07/27/2023	Total Dissolved Solids	1,400	mg/L
OM12	Compliance	R3	07/27/2023	Turbidity, field	66.3	NTU
OM21	Compliance	R3	07/19/2023	Antimony, total	0.00043 U	mg/L
OM21	Compliance	R3	07/19/2023	Arsenic, total	0.00360	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM21	Compliance	R3	07/19/2023	Barium, total	0.0620 J+	mg/L
OM21	Compliance	R3	07/19/2023	Beryllium, total	0.00059 U	mg/L
OM21	Compliance	R3	07/19/2023	Boron, total	9.80	mg/L
OM21	Compliance	R3	07/19/2023	Cadmium, total	0.00074 U	mg/L
OM21	Compliance	R3	07/19/2023	Calcium, total	300	mg/L
OM21	Compliance	R3	07/19/2023	Chloride, total	270	mg/L
OM21	Compliance	R3	07/19/2023	Chromium, total	0.0170	mg/L
OM21	Compliance	R3	07/19/2023	Cobalt, total	0.00660	mg/L
OM21	Compliance	R3	07/19/2023	Dissolved Oxygen	2.70	mg/L
OM21	Compliance	R3	07/19/2023	Fluoride, total	0.04 U	mg/L
OM21	Compliance	R3	07/19/2023	Lead, total	0.00690	mg/L
OM21	Compliance	R3	07/19/2023	Lithium, total	0.0450	mg/L
OM21	Compliance	R3	07/19/2023	Mercury, total	0.00014 J	mg/L
OM21	Compliance	R3	07/19/2023	Molybdenum, total	0.00330	mg/L
OM21	Compliance	R3	07/19/2023	Oxidation Reduction Potential	-47.6	mV
OM21	Compliance	R3	07/19/2023	pH (field)	6.5	SU
OM21	Compliance	R3	07/19/2023	Radium 226 + Radium 228, total	2.96	pCi/L
OM21	Compliance	R3	07/19/2023	Selenium, total	0.00074 U	mg/L
OM21	Compliance	R3	07/19/2023	Specific Conductance @ 25C (field)	3,344	micromhos/cm
OM21	Compliance	R3	07/19/2023	Sulfate, total	1,200	mg/L
OM21	Compliance	R3	07/19/2023	Temperature (Celsius)	18.8	degrees C
OM21	Compliance	R3	07/19/2023	Thallium, total	0.00038 U	mg/L
OM21	Compliance	R3	07/19/2023	Total Dissolved Solids	2,700	mg/L
OM21	Compliance	R3	07/19/2023	Turbidity, field	1,890	NTU
OM22D	Compliance	R3	07/19/2023	Antimony, total	0.00044 J	mg/L
OM22D	Compliance	R3	07/19/2023	Arsenic, total	0.0120	mg/L
OM22D	Compliance	R3	07/19/2023	Barium, total	0.280	mg/L
OM22D	Compliance	R3	07/19/2023	Beryllium, total	0.00170	mg/L
OM22D	Compliance	R3	07/19/2023	Boron, total	52.0	mg/L
OM22D	Compliance	R3	07/19/2023	Cadmium, total	0.00074 U	mg/L
OM22D	Compliance	R3	07/19/2023	Calcium, total	490	mg/L
OM22D	Compliance	R3	07/19/2023	Chloride, total	940	mg/L
OM22D	Compliance	R3	07/19/2023	Chromium, total	0.0470	mg/L
OM22D	Compliance	R3	07/19/2023	Cobalt, total	0.0270	mg/L
OM22D	Compliance	R3	07/19/2023	Dissolved Oxygen	2.60	mg/L
OM22D	Compliance	R3	07/19/2023	Fluoride, total	0.213 J	mg/L
OM22D	Compliance	R3	07/19/2023	Lead, total	0.0160	mg/L
OM22D	Compliance	R3	07/19/2023	Lithium, total	0.0800	mg/L
OM22D	Compliance	R3	07/19/2023	Mercury, total	0.00014 U	mg/L
OM22D	Compliance	R3	07/19/2023	Molybdenum, total	0.0930	mg/L
OM22D	Compliance	R3	07/19/2023	Oxidation Reduction Potential	2.20	mV
OM22D	Compliance	R3	07/19/2023	pH (field)	6.7	SU
OM22D	Compliance	R3	07/19/2023	Radium 226 + Radium 228, total	5.51	pCi/L
OM22D	Compliance	R3	07/19/2023	Selenium, total	0.00120	mg/L
OM22D	Compliance	R3	07/19/2023	Specific Conductance @ 25C (field)	3,907	micromhos/cm
OM22D	Compliance	R3	07/19/2023	Sulfate, total	800	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM22D	Compliance	R3	07/19/2023	Temperature (Celsius)	18.7	degrees C
OM22D	Compliance	R3	07/19/2023	Thallium, total	0.00038 U	mg/L
OM22D	Compliance	R3	07/19/2023	Total Dissolved Solids	4,300	mg/L
OM22D	Compliance	R3	07/19/2023	Turbidity, field	6,540	NTU
OM23D	Compliance	R3	07/27/2023	Antimony, total	0.00065 J	mg/L
OM23D	Compliance	R3	07/27/2023	Arsenic, total	0.00150	mg/L
OM23D	Compliance	R3	07/27/2023	Barium, total	0.0330	mg/L
OM23D	Compliance	R3	07/27/2023	Beryllium, total	0.00059 U	mg/L
OM23D	Compliance	R3	07/27/2023	Boron, total	2.00	mg/L
OM23D	Compliance	R3	07/27/2023	Cadmium, total	0.00074 U	mg/L
OM23D	Compliance	R3	07/27/2023	Calcium, total	170	mg/L
OM23D	Compliance	R3	07/27/2023	Chloride, total	29.0	mg/L
OM23D	Compliance	R3	07/27/2023	Chromium, total	0.0028 U	mg/L
OM23D	Compliance	R3	07/27/2023	Cobalt, total	0.00085 J	mg/L
OM23D	Compliance	R3	07/27/2023	Dissolved Oxygen	8.70	mg/L
OM23D	Compliance	R3	07/27/2023	Fluoride, total	0.284	mg/L
OM23D	Compliance	R3	07/27/2023	Lead, total	0.00083 J	mg/L
OM23D	Compliance	R3	07/27/2023	Lithium, total	0.0330	mg/L
OM23D	Compliance	R3	07/27/2023	Mercury, total	0.000230	mg/L
OM23D	Compliance	R3	07/27/2023	Molybdenum, total	0.00250	mg/L
OM23D	Compliance	R3	07/27/2023	Oxidation Reduction Potential	-20.0	mV
OM23D	Compliance	R3	07/27/2023	pH (field)	6.3	SU
OM23D	Compliance	R3	07/27/2023	Radium 226 + Radium 228, total	0.389	pCi/L
OM23D	Compliance	R3	07/27/2023	Selenium, total	0.00074 U	mg/L
OM23D	Compliance	R3	07/27/2023	Specific Conductance @ 25C (field)	1,610	micromhos/cm
OM23D	Compliance	R3	07/27/2023	Sulfate, total	410	mg/L
OM23D	Compliance	R3	07/27/2023	Temperature (Celsius)	14.3	degrees C
OM23D	Compliance	R3	07/27/2023	Thallium, total	0.00038 U	mg/L
OM23D	Compliance	R3	07/27/2023	Total Dissolved Solids	1,200	mg/L
OM23D	Compliance	R3	07/27/2023	Turbidity, field	113	NTU
OM24D	Compliance	R3	07/27/2023	Antimony, total	0.00043 U	mg/L
OM24D	Compliance	R3	07/27/2023	Arsenic, total	0.00580	mg/L
OM24D	Compliance	R3	07/27/2023	Barium, total	0.0250	mg/L
OM24D	Compliance	R3	07/27/2023	Beryllium, total	0.00059 U	mg/L
OM24D	Compliance	R3	07/27/2023	Boron, total	18.0	mg/L
OM24D	Compliance	R3	07/27/2023	Cadmium, total	0.00074 U	mg/L
OM24D	Compliance	R3	07/27/2023	Calcium, total	420	mg/L
OM24D	Compliance	R3	07/27/2023	Chloride, total	450	mg/L
OM24D	Compliance	R3	07/27/2023	Chromium, total	0.0028 U	mg/L
OM24D	Compliance	R3	07/27/2023	Cobalt, total	0.00072 J	mg/L
OM24D	Compliance	R3	07/27/2023	Dissolved Oxygen	1.90	mg/L
OM24D	Compliance	R3	07/27/2023	Fluoride, total	0.199 J	mg/L
OM24D	Compliance	R3	07/27/2023	Lead, total	0.00190	mg/L
OM24D	Compliance	R3	07/27/2023	Lithium, total	0.0083 J	mg/L
OM24D	Compliance	R3	07/27/2023	Mercury, total	0.0029 U	mg/L
OM24D	Compliance	R3	07/27/2023	Molybdenum, total	0.00530	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM24D	Compliance	R3	07/27/2023	Oxidation Reduction Potential	-61.0	mV
OM24D	Compliance	R3	07/27/2023	pH (field)	6.3	SU
OM24D	Compliance	R3	07/27/2023	Radium 226 + Radium 228, total	1.55	pCi/L
OM24D	Compliance	R3	07/27/2023	Selenium, total	0.00074 U	mg/L
OM24D	Compliance	R3	07/27/2023	Specific Conductance @ 25C (field)	2,640	micromhos/cm
OM24D	Compliance	R3	07/27/2023	Sulfate, total	770	mg/L
OM24D	Compliance	R3	07/27/2023	Temperature (Celsius)	28.8	degrees C
OM24D	Compliance	R3	07/27/2023	Thallium, total	0.00038 U	mg/L
OM24D	Compliance	R3	07/27/2023	Total Dissolved Solids	2,500	mg/L
OM24D	Compliance	R3	07/27/2023	Turbidity, field	710	NTU
OM25S	Compliance	R3	07/26/2023	Antimony, total	0.0007 J	mg/L
OM25S	Compliance	R3	07/26/2023	Arsenic, total	0.0210	mg/L
OM25S	Compliance	R3	07/26/2023	Barium, total	0.390	mg/L
OM25S	Compliance	R3	07/26/2023	Beryllium, total	0.00420	mg/L
OM25S	Compliance	R3	07/26/2023	Boron, total	29.0	mg/L
OM25S	Compliance	R3	07/26/2023	Cadmium, total	0.00074 U	mg/L
OM25S	Compliance	R3	07/26/2023	Calcium, total	460	mg/L
OM25S	Compliance	R3	07/27/2023	Chloride, total	610	mg/L
OM25S	Compliance	R3	07/26/2023	Chromium, total	0.120	mg/L
OM25S	Compliance	R3	07/26/2023	Cobalt, total	0.0780	mg/L
OM25S	Compliance	R3	07/26/2023	Dissolved Oxygen	1.80	mg/L
OM25S	Compliance	R3	07/27/2023	Fluoride, total	0.151 J	mg/L
OM25S	Compliance	R3	07/26/2023	Lead, total	0.0700	mg/L
OM25S	Compliance	R3	07/26/2023	Lithium, total	0.170	mg/L
OM25S	Compliance	R3	07/26/2023	Mercury, total	0.000210	mg/L
OM25S	Compliance	R3	07/26/2023	Molybdenum, total	0.00770	mg/L
OM25S	Compliance	R3	07/26/2023	Oxidation Reduction Potential	0.900	mV
OM25S	Compliance	R3	07/26/2023	pH (field)	6.9	SU
OM25S	Compliance	R3	07/26/2023	Radium 226 + Radium 228, total	17.7	pCi/L
OM25S	Compliance	R3	07/26/2023	Selenium, total	0.00400	mg/L
OM25S	Compliance	R3	07/26/2023	Specific Conductance @ 25C (field)	3,223	micromhos/cm
OM25S	Compliance	R3	07/27/2023	Sulfate, total	710	mg/L
OM25S	Compliance	R3	07/26/2023	Temperature (Celsius)	18.3	degrees C
OM25S	Compliance	R3	07/26/2023	Thallium, total	0.00059 J	mg/L
OM25S	Compliance	R3	08/10/2023	Total Dissolved Solids	2,800	mg/L
OM25S	Compliance	R3	07/26/2023	Turbidity, field	409	NTU
OR02	Compliance	R3	07/20/2023	Antimony, total	0.00043 U	mg/L
OR02	Compliance	R3	07/20/2023	Arsenic, total	0.0230	mg/L
OR02	Compliance	R3	07/20/2023	Barium, total	0.0900	mg/L
OR02	Compliance	R3	07/20/2023	Beryllium, total	0.0012 U	mg/L
OR02	Compliance	R3	07/20/2023	Boron, total	4.90	mg/L
OR02	Compliance	R3	07/20/2023	Cadmium, total	0.00074 U	mg/L
OR02	Compliance	R3	07/20/2023	Calcium, total	110	mg/L
OR02	Compliance	R3	07/20/2023	Chloride, total	230	mg/L
OR02	Compliance	R3	07/20/2023	Chromium, total	0.0160	mg/L
OR02	Compliance	R3	07/20/2023	Cobalt, total	0.0100	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR02	Compliance	R3	07/20/2023	Dissolved Oxygen	1.30	mg/L
OR02	Compliance	R3	07/20/2023	Fluoride, total	0.187 J	mg/L
OR02	Compliance	R3	07/20/2023	Lead, total	0.0180	mg/L
OR02	Compliance	R3	07/20/2023	Lithium, total	0.018 J	mg/L
OR02	Compliance	R3	07/20/2023	Mercury, total	0.00014 U	mg/L
OR02	Compliance	R3	07/20/2023	Molybdenum, total	0.00570	mg/L
OR02	Compliance	R3	07/20/2023	Oxidation Reduction Potential	-34.2	mV
OR02	Compliance	R3	07/20/2023	pH (field)	6.6	SU
OR02	Compliance	R3	07/20/2023	Radium 226 + Radium 228, total	2.09	pCi/L
OR02	Compliance	R3	07/20/2023	Selenium, total	0.00150	mg/L
OR02	Compliance	R3	07/20/2023	Specific Conductance @ 25C (field)	1,972	micromhos/cm
OR02	Compliance	R3	07/20/2023	Sulfate, total	270	mg/L
OR02	Compliance	R3	07/20/2023	Temperature (Celsius)	21.8	degrees C
OR02	Compliance	R3	07/20/2023	Thallium, total	0.00038 U	mg/L
OR02	Compliance	R3	07/20/2023	Total Dissolved Solids	1,400	mg/L
OR02	Compliance	R3	07/20/2023	Turbidity, field	4,350	NTU
OR03D	Compliance	R3	07/31/2023	Antimony, total	0.0012 J	mg/L
OR03D	Compliance	R3	07/31/2023	Arsenic, total	0.0360	mg/L
OR03D	Compliance	R3	07/31/2023	Barium, total	1.00	mg/L
OR03D	Compliance	R3	07/31/2023	Beryllium, total	0.00660	mg/L
OR03D	Compliance	R3	07/31/2023	Boron, total	41.0	mg/L
OR03D	Compliance	R3	07/31/2023	Cadmium, total	0.00074 U	mg/L
OR03D	Compliance	R3	07/31/2023	Calcium, total	730	mg/L
OR03D	Compliance	R3	07/31/2023	Chloride, total	1,100	mg/L
OR03D	Compliance	R3	07/31/2023	Chromium, total	0.230	mg/L
OR03D	Compliance	R3	07/31/2023	Cobalt, total	0.120	mg/L
OR03D	Compliance	R3	07/31/2023	Dissolved Oxygen	3.40	mg/L
OR03D	Compliance	R3	07/31/2023	Fluoride, total	0.218 J	mg/L
OR03D	Compliance	R3	07/31/2023	Lead, total	0.0960	mg/L
OR03D	Compliance	R3	07/31/2023	Lithium, total	0.220	mg/L
OR03D	Compliance	R3	07/31/2023	Mercury, total	0.00014 U	mg/L
OR03D	Compliance	R3	07/31/2023	Molybdenum, total	0.0140	mg/L
OR03D	Compliance	R3	07/31/2023	Oxidation Reduction Potential	-14.0	mV
OR03D	Compliance	R3	07/31/2023	pH (field)	7.0	SU
OR03D	Compliance	R3	07/31/2023	Radium 226 + Radium 228, total	16.2	pCi/L
OR03D	Compliance	R3	07/31/2023	Selenium, total	0.00074 U	mg/L
OR03D	Compliance	R3	07/31/2023	Specific Conductance @ 25C (field)	4,020	micromhos/cm
OR03D	Compliance	R3	07/31/2023	Sulfate, total	630	mg/L
OR03D	Compliance	R3	07/31/2023	Temperature (Celsius)	15.5	degrees C
OR03D	Compliance	R3	07/31/2023	Thallium, total	0.00038 U	mg/L
OR03D	Compliance	R3	07/31/2023	Total Dissolved Solids	5,200	mg/L
OR03D	Compliance	R3	07/31/2023	Turbidity, field	1,000 U	NTU
OR04D	Compliance	R3	07/25/2023	Antimony, total	0.00043 U	mg/L
OR04D	Compliance	R3	07/25/2023	Arsenic, total	0.00330	mg/L
OR04D	Compliance	R3	07/25/2023	Barium, total	0.0290	mg/L
OR04D	Compliance	R3	07/25/2023	Beryllium, total	0.00059 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR04D	Compliance	R3	07/25/2023	Boron, total	71.0	mg/L
OR04D	Compliance	R3	07/25/2023	Cadmium, total	0.00074 U	mg/L
OR04D	Compliance	R3	07/25/2023	Calcium, total	650	mg/L
OR04D	Compliance	R3	07/25/2023	Chloride, total	1,100	mg/L
OR04D	Compliance	R3	07/25/2023	Chromium, total	0.00550	mg/L
OR04D	Compliance	R3	07/25/2023	Cobalt, total	0.00094 J	mg/L
OR04D	Compliance	R3	07/25/2023	Dissolved Oxygen	0.430	mg/L
OR04D	Compliance	R3	07/25/2023	Fluoride, total	0.25 UJ	mg/L
OR04D	Compliance	R3	07/25/2023	Lead, total	0.00110	mg/L
OR04D	Compliance	R3	07/25/2023	Lithium, total	0.0580	mg/L
OR04D	Compliance	R3	07/25/2023	Mercury, total	0.00014 U	mg/L
OR04D	Compliance	R3	07/25/2023	Molybdenum, total	0.00390	mg/L
OR04D	Compliance	R3	07/25/2023	Oxidation Reduction Potential	-30.2	mV
OR04D	Compliance	R3	07/25/2023	pH (field)	6.7	SU
OR04D	Compliance	R3	07/25/2023	Radium 226 + Radium 228, total	1.24	pCi/L
OR04D	Compliance	R3	07/25/2023	Selenium, total	0.00074 U	mg/L
OR04D	Compliance	R3	07/25/2023	Specific Conductance @ 25C (field)	5,280	micromhos/cm
OR04D	Compliance	R3	07/25/2023	Sulfate, total	1,200	mg/L
OR04D	Compliance	R3	07/25/2023	Temperature (Celsius)	21.3	degrees C
OR04D	Compliance	R3	07/25/2023	Thallium, total	0.00038 U	mg/L
OR04D	Compliance	R3	07/25/2023	Total Dissolved Solids	4,700	mg/L
OR04D	Compliance	R3	07/25/2023	Turbidity, field	2,150	NTU
OR06A	Compliance	R3	07/26/2023	Antimony, total	0.00043 U	mg/L
OR06A	Compliance	R3	07/26/2023	Arsenic, total	0.0120	mg/L
OR06A	Compliance	R3	07/26/2023	Barium, total	0.0540	mg/L
OR06A	Compliance	R3	07/26/2023	Beryllium, total	0.00059 U	mg/L
OR06A	Compliance	R3	07/26/2023	Boron, total	66.0	mg/L
OR06A	Compliance	R3	07/26/2023	Cadmium, total	0.00074 U	mg/L
OR06A	Compliance	R3	07/26/2023	Calcium, total	480	mg/L
OR06A	Compliance	R3	07/27/2023	Chloride, total	180	mg/L
OR06A	Compliance	R3	07/26/2023	Chromium, total	0.0031 J	mg/L
OR06A	Compliance	R3	07/26/2023	Cobalt, total	0.00380	mg/L
OR06A	Compliance	R3	07/26/2023	Dissolved Oxygen	2.40	mg/L
OR06A	Compliance	R3	07/27/2023	Fluoride, total	0.136 J	mg/L
OR06A	Compliance	R3	07/26/2023	Lead, total	0.00360	mg/L
OR06A	Compliance	R3	07/26/2023	Lithium, total	0.0092 J	mg/L
OR06A	Compliance	R3	07/26/2023	Mercury, total	0.00014 U	mg/L
OR06A	Compliance	R3	07/26/2023	Molybdenum, total	0.0920	mg/L
OR06A	Compliance	R3	07/26/2023	Oxidation Reduction Potential	-32.8	mV
OR06A	Compliance	R3	07/26/2023	pH (field)	6.8	SU
OR06A	Compliance	R3	07/26/2023	Radium 226 + Radium 228, total	0.837	pCi/L
OR06A	Compliance	R3	07/26/2023	Selenium, total	0.00074 U	mg/L
OR06A	Compliance	R3	07/26/2023	Specific Conductance @ 25C (field)	3,301	micromhos/cm
OR06A	Compliance	R3	07/27/2023	Sulfate, total	390	mg/L
OR06A	Compliance	R3	07/26/2023	Temperature (Celsius)	18.4	degrees C
OR06A	Compliance	R3	07/26/2023	Thallium, total	0.00038 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR06A	Compliance	R3	08/10/2023	Total Dissolved Solids	2,100	mg/L
OR06A	Compliance	R3	07/26/2023	Turbidity, field	382	NTU
OR11	Compliance	R3	07/26/2023	Antimony, total	0.001 J	mg/L
OR11	Compliance	R3	07/26/2023	Arsenic, total	0.00550	mg/L
OR11	Compliance	R3	07/26/2023	Barium, total	0.100	mg/L
OR11	Compliance	R3	07/26/2023	Beryllium, total	0.00059 U	mg/L
OR11	Compliance	R3	07/26/2023	Boron, total	9.80	mg/L
OR11	Compliance	R3	07/26/2023	Cadmium, total	0.00074 U	mg/L
OR11	Compliance	R3	07/26/2023	Calcium, total	160	mg/L
OR11	Compliance	R3	07/27/2023	Chloride, total	60.0	mg/L
OR11	Compliance	R3	07/26/2023	Chromium, total	0.00590	mg/L
OR11	Compliance	R3	07/26/2023	Cobalt, total	0.00460	mg/L
OR11	Compliance	R3	07/26/2023	Dissolved Oxygen	2.90	mg/L
OR11	Compliance	R3	07/27/2023	Fluoride, total	0.281	mg/L
OR11	Compliance	R3	07/26/2023	Lead, total	0.00710	mg/L
OR11	Compliance	R3	07/26/2023	Lithium, total	0.0200	mg/L
OR11	Compliance	R3	07/26/2023	Mercury, total	0.00014 J	mg/L
OR11	Compliance	R3	07/26/2023	Molybdenum, total	0.00710	mg/L
OR11	Compliance	R3	07/26/2023	Oxidation Reduction Potential	2.80	mV
OR11	Compliance	R3	07/26/2023	pH (field)	7.0	SU
OR11	Compliance	R3	07/26/2023	Radium 226 + Radium 228, total	1.80	pCi/L
OR11	Compliance	R3	07/26/2023	Selenium, total	0.00074 U	mg/L
OR11	Compliance	R3	07/26/2023	Specific Conductance @ 25C (field)	1,214	micromhos/cm
OR11	Compliance	R3	07/27/2023	Sulfate, total	130	mg/L
OR11	Compliance	R3	07/26/2023	Temperature (Celsius)	15.2	degrees C
OR11	Compliance	R3	07/26/2023	Thallium, total	0.00038 U	mg/L
OR11	Compliance	R3	08/10/2023	Total Dissolved Solids	890	mg/L
OR11	Compliance	R3	07/26/2023	Turbidity, field	534	NTU
OR13S	Compliance	R3	07/26/2023	Antimony, total	0.00043 U	mg/L
OR13S	Compliance	R3	07/26/2023	Arsenic, total	0.0160	mg/L
OR13S	Compliance	R3	07/26/2023	Barium, total	0.0260	mg/L
OR13S	Compliance	R3	07/26/2023	Beryllium, total	0.00059 U	mg/L
OR13S	Compliance	R3	07/26/2023	Boron, total	3.10	mg/L
OR13S	Compliance	R3	07/26/2023	Cadmium, total	0.00074 U	mg/L
OR13S	Compliance	R3	07/26/2023	Calcium, total	290	mg/L
OR13S	Compliance	R3	07/27/2023	Chloride, total	28.0	mg/L
OR13S	Compliance	R3	07/26/2023	Chromium, total	0.0028 U	mg/L
OR13S	Compliance	R3	07/26/2023	Cobalt, total	0.0012 J	mg/L
OR13S	Compliance	R3	07/26/2023	Dissolved Oxygen	2.10	mg/L
OR13S	Compliance	R3	07/27/2023	Fluoride, total	0.196 J	mg/L
OR13S	Compliance	R3	07/26/2023	Lead, total	0.00056 J	mg/L
OR13S	Compliance	R3	07/26/2023	Lithium, total	0.016 J	mg/L
OR13S	Compliance	R3	07/26/2023	Mercury, total	0.00016 J	mg/L
OR13S	Compliance	R3	07/26/2023	Molybdenum, total	0.00720	mg/L
OR13S	Compliance	R3	07/26/2023	Oxidation Reduction Potential	-33.0	mV
OR13S	Compliance	R3	07/26/2023	pH (field)	6.5	SU

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR13S	Compliance	R3	07/26/2023	Radium 226 + Radium 228, total	0.883	pCi/L
OR13S	Compliance	R3	07/26/2023	Selenium, total	0.00074 U	mg/L
OR13S	Compliance	R3	07/26/2023	Specific Conductance @ 25C (field)	2,110	micromhos/cm
OR13S	Compliance	R3	07/27/2023	Sulfate, total	520	mg/L
OR13S	Compliance	R3	07/26/2023	Temperature (Celsius)	21.0	degrees C
OR13S	Compliance	R3	07/26/2023	Thallium, total	0.00038 U	mg/L
OR13S	Compliance	R3	08/10/2023	Total Dissolved Solids	1,700	mg/L
OR13S	Compliance	R3	07/26/2023	Turbidity, field	530	NTU
OR13D	Compliance	R3	07/26/2023	Antimony, total	0.00043 U	mg/L
OR13D	Compliance	R3	07/26/2023	Arsenic, total	0.00830	mg/L
OR13D	Compliance	R3	07/26/2023	Barium, total	0.0330	mg/L
OR13D	Compliance	R3	07/26/2023	Beryllium, total	0.00059 U	mg/L
OR13D	Compliance	R3	07/26/2023	Boron, total	1.80	mg/L
OR13D	Compliance	R3	07/26/2023	Cadmium, total	0.00074 U	mg/L
OR13D	Compliance	R3	07/26/2023	Calcium, total	120	mg/L
OR13D	Compliance	R3	07/27/2023	Chloride, total	43.0	mg/L
OR13D	Compliance	R3	07/26/2023	Chromium, total	0.0028 U	mg/L
OR13D	Compliance	R3	07/26/2023	Cobalt, total	0.00048 U	mg/L
OR13D	Compliance	R3	07/26/2023	Dissolved Oxygen	0.490	mg/L
OR13D	Compliance	R3	07/27/2023	Fluoride, total	0.343	mg/L
OR13D	Compliance	R3	07/26/2023	Lead, total	0.00078 J	mg/L
OR13D	Compliance	R3	07/26/2023	Lithium, total	0.0260	mg/L
OR13D	Compliance	R3	07/26/2023	Mercury, total	0.00019 J	mg/L
OR13D	Compliance	R3	07/26/2023	Molybdenum, total	0.00740	mg/L
OR13D	Compliance	R3	07/26/2023	Oxidation Reduction Potential	-69.0	mV
OR13D	Compliance	R3	07/26/2023	pH (field)	6.7	SU
OR13D	Compliance	R3	07/26/2023	Radium 226 + Radium 228, total	5.58	pCi/L
OR13D	Compliance	R3	07/26/2023	Selenium, total	0.00074 U	mg/L
OR13D	Compliance	R3	07/26/2023	Specific Conductance @ 25C (field)	1,850	micromhos/cm
OR13D	Compliance	R3	07/27/2023	Sulfate, total	290	mg/L
OR13D	Compliance	R3	07/26/2023	Temperature (Celsius)	24.8	degrees C
OR13D	Compliance	R3	07/26/2023	Thallium, total	0.00038 U	mg/L
OR13D	Compliance	R3	08/10/2023	Total Dissolved Solids	740 J	mg/L
OR13D	Compliance	R3	07/26/2023	Turbidity, field	1,000 U	NTU
OR14D	Compliance	R3	07/24/2023	Antimony, total	0.00043 U	mg/L
OR14D	Compliance	R3	07/24/2023	Arsenic, total	0.00620	mg/L
OR14D	Compliance	R3	07/24/2023	Barium, total	0.0460	mg/L
OR14D	Compliance	R3	07/24/2023	Beryllium, total	0.00059 U	mg/L
OR14D	Compliance	R3	07/24/2023	Boron, total	12.0	mg/L
OR14D	Compliance	R3	07/24/2023	Cadmium, total	0.00074 U	mg/L
OR14D	Compliance	R3	07/24/2023	Calcium, total	370	mg/L
OR14D	Compliance	R3	07/24/2023	Chloride, total	240	mg/L
OR14D	Compliance	R3	07/24/2023	Chromium, total	0.00720	mg/L
OR14D	Compliance	R3	07/24/2023	Cobalt, total	0.00460	mg/L
OR14D	Compliance	R3	07/24/2023	Dissolved Oxygen	0.350	mg/L
OR14D	Compliance	R3	07/24/2023	Fluoride, total	0.252 J+	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR14D	Compliance	R3	07/24/2023	Lead, total	0.00470	mg/L
OR14D	Compliance	R3	07/24/2023	Lithium, total	0.0310	mg/L
OR14D	Compliance	R3	07/24/2023	Mercury, total	0.000220	mg/L
OR14D	Compliance	R3	07/24/2023	Molybdenum, total	0.00720	mg/L
OR14D	Compliance	R3	07/24/2023	Oxidation Reduction Potential	-96.3	mV
OR14D	Compliance	R3	07/24/2023	pH (field)	6.7	SU
OR14D	Compliance	R3	07/24/2023	Radium 226 + Radium 228, total	1.58	pCi/L
OR14D	Compliance	R3	07/24/2023	Selenium, total	0.00074 U	mg/L
OR14D	Compliance	R3	07/24/2023	Specific Conductance @ 25C (field)	2,624	micromhos/cm
OR14D	Compliance	R3	07/24/2023	Sulfate, total	890	mg/L
OR14D	Compliance	R3	07/24/2023	Temperature (Celsius)	19.4	degrees C
OR14D	Compliance	R3	07/24/2023	Thallium, total	0.00038 U	mg/L
OR14D	Compliance	R3	07/24/2023	Total Dissolved Solids	2,300	mg/L
OR14D	Compliance	R3	07/24/2023	Turbidity, field	2,920	NTU
OR19	Compliance	R3	07/31/2023	Antimony, total	0.00043 U	mg/L
OR19	Compliance	R3	07/31/2023	Arsenic, total	0.00140	mg/L
OR19	Compliance	R3	07/31/2023	Barium, total	0.0400	mg/L
OR19	Compliance	R3	07/31/2023	Beryllium, total	0.00059 U	mg/L
OR19	Compliance	R3	07/31/2023	Boron, total	13.0	mg/L
OR19	Compliance	R3	07/31/2023	Cadmium, total	0.00074 U	mg/L
OR19	Compliance	R3	07/31/2023	Calcium, total	360	mg/L
OR19	Compliance	R3	07/31/2023	Chloride, total	160	mg/L
OR19	Compliance	R3	07/31/2023	Chromium, total	0.00820	mg/L
OR19	Compliance	R3	07/31/2023	Cobalt, total	0.00066 J	mg/L
OR19	Compliance	R3	07/31/2023	Dissolved Oxygen	1.50	mg/L
OR19	Compliance	R3	07/31/2023	Fluoride, total	0.384	mg/L
OR19	Compliance	R3	07/31/2023	Lead, total	0.00430	mg/L
OR19	Compliance	R3	07/31/2023	Lithium, total	0.0220	mg/L
OR19	Compliance	R3	07/31/2023	Mercury, total	0.000220	mg/L
OR19	Compliance	R3	07/31/2023	Molybdenum, total	0.00400	mg/L
OR19	Compliance	R3	07/31/2023	Oxidation Reduction Potential	-41.0	mV
OR19	Compliance	R3	07/31/2023	pH (field)	6.7	SU
OR19	Compliance	R3	07/31/2023	Radium 226 + Radium 228, total	2.94	pCi/L
OR19	Compliance	R3	07/31/2023	Selenium, total	0.00074 U	mg/L
OR19	Compliance	R3	07/31/2023	Specific Conductance @ 25C (field)	2,710	micromhos/cm
OR19	Compliance	R3	07/31/2023	Sulfate, total	910	mg/L
OR19	Compliance	R3	07/31/2023	Temperature (Celsius)	20.8	degrees C
OR19	Compliance	R3	07/31/2023	Thallium, total	0.00056 J	mg/L
OR19	Compliance	R3	07/31/2023	Total Dissolved Solids	2,500	mg/L
OR19	Compliance	R3	07/31/2023	Turbidity, field	1,000 U	NTU
OR20	Compliance	R3	07/24/2023	Antimony, total	0.00043 U	mg/L
OR20	Compliance	R3	07/24/2023	Arsenic, total	0.00800	mg/L
OR20	Compliance	R3	07/24/2023	Barium, total	0.0310	mg/L
OR20	Compliance	R3	07/24/2023	Beryllium, total	0.00059 U	mg/L
OR20	Compliance	R3	07/24/2023	Boron, total	23.0	mg/L
OR20	Compliance	R3	07/24/2023	Cadmium, total	0.00074 U	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR20	Compliance	R3	07/24/2023	Calcium, total	210	mg/L
OR20	Compliance	R3	07/24/2023	Chloride, total	330	mg/L
OR20	Compliance	R3	07/24/2023	Chromium, total	0.003 J	mg/L
OR20	Compliance	R3	07/24/2023	Cobalt, total	0.0018 J	mg/L
OR20	Compliance	R3	07/24/2023	Dissolved Oxygen	0.340	mg/L
OR20	Compliance	R3	07/24/2023	Fluoride, total	0.511 J+	mg/L
OR20	Compliance	R3	07/24/2023	Lead, total	0.00240	mg/L
OR20	Compliance	R3	07/24/2023	Lithium, total	0.0350	mg/L
OR20	Compliance	R3	07/24/2023	Mercury, total	0.00014 U	mg/L
OR20	Compliance	R3	07/24/2023	Molybdenum, total	0.0330	mg/L
OR20	Compliance	R3	07/24/2023	Oxidation Reduction Potential	-42.2	mV
OR20	Compliance	R3	07/24/2023	pH (field)	6.8	SU
OR20	Compliance	R3	07/24/2023	Radium 226 + Radium 228, total	4.18	pCi/L
OR20	Compliance	R3	07/24/2023	Selenium, total	0.00074 U	mg/L
OR20	Compliance	R3	07/24/2023	Specific Conductance @ 25C (field)	2,509	micromhos/cm
OR20	Compliance	R3	07/24/2023	Sulfate, total	390	mg/L
OR20	Compliance	R3	07/24/2023	Temperature (Celsius)	18.1	degrees C
OR20	Compliance	R3	07/24/2023	Thallium, total	0.00038 U	mg/L
OR20	Compliance	R3	07/24/2023	Total Dissolved Solids	1,800	mg/L
OR20	Compliance	R3	07/24/2023	Turbidity, field	4,250	NTU

Notes:
C = Celsius
cm = centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
SU = Standard Units
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity, but the result may be biased low.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
BA06	Background	R4	10/19/2023	Antimony, total	0.00043 U	mg/L
BA06	Background	R4	10/19/2023	Arsenic, total	0.00300	mg/L
BA06	Background	R4	10/19/2023	Barium, total	0.0950	mg/L
BA06	Background	R4	10/19/2023	Beryllium, total	0.00059 U	mg/L
BA06	Background	R4	10/19/2023	Boron, total	9.90	mg/L
BA06	Background	R4	10/19/2023	Cadmium, total	0.00074 U	mg/L
BA06	Background	R4	10/19/2023	Calcium, total	300	mg/L
BA06	Background	R4	10/19/2023	Chloride, total	510	mg/L
BA06	Background	R4	10/19/2023	Chromium, total	0.0028 U	mg/L
BA06	Background	R4	10/19/2023	Cobalt, total	0.00700	mg/L
BA06	Background	R4	10/19/2023	Dissolved Oxygen	0	mg/L
BA06	Background	R4	10/19/2023	Fluoride, total	0.231	mg/L
BA06	Background	R4	10/19/2023	Lead, total	0.00022 U	mg/L
BA06	Background	R4	10/19/2023	Lithium, total	0.0064	mg/L
BA06	Background	R4	10/19/2023	Mercury, total	0.000250	mg/L
BA06	Background	R4	10/19/2023	Molybdenum, total	0.00110	mg/L
BA06	Background	R4	10/19/2023	Oxidation Reduction Potential	-38.0	mV
BA06	Background	R4	10/19/2023	pH (field)	6.6	SU
BA06	Background	R4	10/19/2023	Radium 226 + Radium 228, total	0.409	pCi/L
BA06	Background	R4	10/19/2023	Selenium, total	0.00074 U	mg/L
BA06	Background	R4	10/19/2023	Specific Conductance @ 25C (field)	3,170	micromhos/cm
BA06	Background	R4	10/19/2023	Sulfate, total	370	mg/L
BA06	Background	R4	10/19/2023	Temperature (Celsius)	13.3	degrees C
BA06	Background	R4	10/19/2023	Thallium, total	0.00038 U	mg/L
BA06	Background	R4	10/19/2023	Total Dissolved Solids	2,000	mg/L
BA06	Background	R4	10/19/2023	Turbidity, field	3.30	NTU
OM16	Background	R4	10/24/2023	Antimony, total	0.00043 U	mg/L
OM16	Background	R4	10/24/2023	Arsenic, total	0.00860	mg/L
OM16	Background	R4	10/24/2023	Barium, total	0.0480 J+	mg/L
OM16	Background	R4	10/24/2023	Beryllium, total	0.00059 U	mg/L
OM16	Background	R4	10/24/2023	Boron, total	0.0660 J+	mg/L
OM16	Background	R4	10/24/2023	Cadmium, total	0.00760	mg/L
OM16	Background	R4	10/24/2023	Calcium, total	530	mg/L
OM16	Background	R4	10/24/2023	Chloride, total	8.00	mg/L
OM16	Background	R4	10/24/2023	Chromium, total	0.0120	mg/L
OM16	Background	R4	10/24/2023	Cobalt, total	0.0120	mg/L
OM16	Background	R4	10/24/2023	Dissolved Oxygen	2.50	mg/L
OM16	Background	R4	10/24/2023	Fluoride, total	0.16	mg/L
OM16	Background	R4	10/24/2023	Lead, total	0.00630	mg/L
OM16	Background	R4	10/24/2023	Lithium, total	0.0300	mg/L
OM16	Background	R4	10/24/2023	Mercury, total	0.00014 U	mg/L
OM16	Background	R4	10/24/2023	Molybdenum, total	0.00120	mg/L
OM16	Background	R4	10/24/2023	Oxidation Reduction Potential	-16.0	mV
OM16	Background	R4	10/24/2023	pH (field)	6.7	SU
OM16	Background	R4	10/24/2023	Radium 226 + Radium 228, total	0.972	pCi/L
OM16	Background	R4	10/24/2023	Selenium, total	0.00074 U	mg/L

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Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM16	Background	R4	10/24/2023	Specific Conductance @ 25C (field)	4,020	micromhos/cm
OM16	Background	R4	10/24/2023	Sulfate, total	2,000	mg/L
OM16	Background	R4	10/24/2023	Temperature (Celsius)	15.5	degrees C
OM16	Background	R4	10/24/2023	Thallium, total	0.00038 U	mg/L
OM16	Background	R4	10/24/2023	Total Dissolved Solids	3,700	mg/L
OM16	Background	R4	10/24/2023	Turbidity, field	1,000	NTU
OM01	Compliance	R4	10/27/2023	Antimony, total	0.00043 U	mg/L
OM01	Compliance	R4	10/27/2023	Arsenic, total	0.00530	mg/L
OM01	Compliance	R4	10/27/2023	Barium, total	0.120	mg/L
OM01	Compliance	R4	10/27/2023	Beryllium, total	0.00059 U	mg/L
OM01	Compliance	R4	10/27/2023	Boron, total	0.210 J+	mg/L
OM01	Compliance	R4	10/27/2023	Cadmium, total	0.00074 U	mg/L
OM01	Compliance	R4	10/27/2023	Calcium, total	590	mg/L
OM01	Compliance	R4	10/27/2023	Chloride, total	30.0	mg/L
OM01	Compliance	R4	10/27/2023	Chromium, total	0.0130	mg/L
OM01	Compliance	R4	10/27/2023	Cobalt, total	0.0230	mg/L
OM01	Compliance	R4	10/27/2023	Dissolved Oxygen	2.20	mg/L
OM01	Compliance	R4	10/27/2023	Fluoride, total	0.159	mg/L
OM01	Compliance	R4	10/27/2023	Lead, total	0.00610	mg/L
OM01	Compliance	R4	10/27/2023	Lithium, total	0.0099	mg/L
OM01	Compliance	R4	10/27/2023	Mercury, total	0.00018	mg/L
OM01	Compliance	R4	10/27/2023	Molybdenum, total	0.00074 U	mg/L
OM01	Compliance	R4	10/27/2023	Oxidation Reduction Potential	-33.0	mV
OM01	Compliance	R4	10/27/2023	pH (field)	6.8	SU
OM01	Compliance	R4	10/27/2023	Radium 226 + Radium 228, total	2.13	pCi/L
OM01	Compliance	R4	10/27/2023	Selenium, total	0.00074 U	mg/L
OM01	Compliance	R4	10/27/2023	Specific Conductance @ 25C (field)	3,590	micromhos/cm
OM01	Compliance	R4	10/27/2023	Sulfate, total	1,800	mg/L
OM01	Compliance	R4	10/27/2023	Temperature (Celsius)	16.0	degrees C
OM01	Compliance	R4	10/27/2023	Thallium, total	0.00038 U	mg/L
OM01	Compliance	R4	10/27/2023	Total Dissolved Solids	3,500	mg/L
OM01	Compliance	R4	10/27/2023	Turbidity, field	209	NTU
OM04S	Compliance	R4	10/25/2023	Antimony, total	0.00043 U	mg/L
OM04S	Compliance	R4	10/25/2023	Arsenic, total	0.00220	mg/L
OM04S	Compliance	R4	10/25/2023	Barium, total	0.0530	mg/L
OM04S	Compliance	R4	10/25/2023	Beryllium, total	0.00059 U	mg/L
OM04S	Compliance	R4	10/25/2023	Boron, total	0.0530 J+	mg/L
OM04S	Compliance	R4	10/25/2023	Cadmium, total	0.00074 U	mg/L
OM04S	Compliance	R4	10/25/2023	Calcium, total	160	mg/L
OM04S	Compliance	R4	10/25/2023	Chloride, total	16.0 J	mg/L
OM04S	Compliance	R4	10/25/2023	Chromium, total	0.0028 U	mg/L
OM04S	Compliance	R4	10/25/2023	Cobalt, total	0.00630 J+	mg/L
OM04S	Compliance	R4	10/25/2023	Dissolved Oxygen	8.30	mg/L
OM04S	Compliance	R4	10/25/2023	Fluoride, total	0.143 J	mg/L
OM04S	Compliance	R4	10/25/2023	Lead, total	0.00110 J+	mg/L
OM04S	Compliance	R4	10/25/2023	Lithium, total	0.005 U	mg/L

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Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM04S	Compliance	R4	10/25/2023	Mercury, total	0.000480	mg/L
OM04S	Compliance	R4	10/25/2023	Molybdenum, total	0.00120	mg/L
OM04S	Compliance	R4	10/25/2023	Oxidation Reduction Potential	-1.00	mV
OM04S	Compliance	R4	10/25/2023	pH (field)	7.4	SU
OM04S	Compliance	R4	10/25/2023	Radium 226 + Radium 228, total	1.23	pCi/L
OM04S	Compliance	R4	10/25/2023	Selenium, total	0.00074 U	mg/L
OM04S	Compliance	R4	10/25/2023	Specific Conductance @ 25C (field)	1,490	micromhos/cm
OM04S	Compliance	R4	10/25/2023	Sulfate, total	140 J	mg/L
OM04S	Compliance	R4	10/25/2023	Temperature (Celsius)	15.2	degrees C
OM04S	Compliance	R4	10/25/2023	Thallium, total	0.00038 U	mg/L
OM04S	Compliance	R4	10/25/2023	Total Dissolved Solids	780	mg/L
OM04S	Compliance	R4	10/25/2023	Turbidity, field	28.7	NTU
OM07	Compliance	R4	10/26/2023	Antimony, total	0.00043 U	mg/L
OM07	Compliance	R4	10/26/2023	Arsenic, total	0.00130	mg/L
OM07	Compliance	R4	10/26/2023	Barium, total	0.0440	mg/L
OM07	Compliance	R4	10/26/2023	Beryllium, total	0.00059 U	mg/L
OM07	Compliance	R4	10/26/2023	Boron, total	0.450 J+	mg/L
OM07	Compliance	R4	10/26/2023	Cadmium, total	0.00074 U	mg/L
OM07	Compliance	R4	10/26/2023	Calcium, total	130	mg/L
OM07	Compliance	R4	10/26/2023	Chloride, total	7.20	mg/L
OM07	Compliance	R4	10/26/2023	Chromium, total	0.0028 U	mg/L
OM07	Compliance	R4	10/26/2023	Cobalt, total	0.002 UJ	mg/L
OM07	Compliance	R4	10/26/2023	Dissolved Oxygen	1.70	mg/L
OM07	Compliance	R4	10/26/2023	Fluoride, total	0.141	mg/L
OM07	Compliance	R4	10/26/2023	Lead, total	0.00022 U	mg/L
OM07	Compliance	R4	10/26/2023	Lithium, total	0.005 U	mg/L
OM07	Compliance	R4	10/26/2023	Mercury, total	0.00014 U	mg/L
OM07	Compliance	R4	10/26/2023	Molybdenum, total	0.00110	mg/L
OM07	Compliance	R4	10/26/2023	Oxidation Reduction Potential	-63.0	mV
OM07	Compliance	R4	10/26/2023	pH (field)	6.8	SU
OM07	Compliance	R4	10/26/2023	Radium 226 + Radium 228, total	0.681	pCi/L
OM07	Compliance	R4	10/26/2023	Selenium, total	0.00074 U	mg/L
OM07	Compliance	R4	10/26/2023	Specific Conductance @ 25C (field)	1,260	micromhos/cm
OM07	Compliance	R4	10/26/2023	Sulfate, total	170	mg/L
OM07	Compliance	R4	10/26/2023	Temperature (Celsius)	15.6	degrees C
OM07	Compliance	R4	10/26/2023	Thallium, total	0.00038 U	mg/L
OM07	Compliance	R4	10/26/2023	Total Dissolved Solids	790	mg/L
OM07	Compliance	R4	10/26/2023	Turbidity, field	10.9	NTU
OM12	Compliance	R4	10/26/2023	Antimony, total	0.00084	mg/L
OM12	Compliance	R4	10/26/2023	Arsenic, total	0.0540	mg/L
OM12	Compliance	R4	10/26/2023	Barium, total	0.250	mg/L
OM12	Compliance	R4	10/26/2023	Beryllium, total	0.00059 U	mg/L
OM12	Compliance	R4	10/26/2023	Boron, total	0.0590 J+	mg/L
OM12	Compliance	R4	10/26/2023	Cadmium, total	0.00074 U	mg/L
OM12	Compliance	R4	10/26/2023	Calcium, total	270	mg/L
OM12	Compliance	R4	10/26/2023	Chloride, total	4.8 U	mg/L

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Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM12	Compliance	R4	10/26/2023	Chromium, total	0.00520	mg/L
OM12	Compliance	R4	10/26/2023	Cobalt, total	0.00420 J+	mg/L
OM12	Compliance	R4	10/26/2023	Dissolved Oxygen	4.70	mg/L
OM12	Compliance	R4	10/26/2023	Fluoride, total	0.146	mg/L
OM12	Compliance	R4	10/26/2023	Lead, total	0.00620	mg/L
OM12	Compliance	R4	10/26/2023	Lithium, total	0.005 U	mg/L
OM12	Compliance	R4	10/26/2023	Mercury, total	0.00014 U	mg/L
OM12	Compliance	R4	10/26/2023	Molybdenum, total	0.00460	mg/L
OM12	Compliance	R4	10/26/2023	Oxidation Reduction Potential	-29.0	mV
OM12	Compliance	R4	10/26/2023	pH (field)	6.5	SU
OM12	Compliance	R4	10/26/2023	Radium 226 + Radium 228, total	1.24	pCi/L
OM12	Compliance	R4	10/26/2023	Selenium, total	0.00074 U	mg/L
OM12	Compliance	R4	10/26/2023	Specific Conductance @ 25C (field)	1,700	micromhos/cm
OM12	Compliance	R4	10/26/2023	Sulfate, total	380	mg/L
OM12	Compliance	R4	10/26/2023	Temperature (Celsius)	15.8	degrees C
OM12	Compliance	R4	10/26/2023	Thallium, total	0.00038 U	mg/L
OM12	Compliance	R4	10/26/2023	Total Dissolved Solids	1,500	mg/L
OM12	Compliance	R4	10/26/2023	Turbidity, field	514	NTU
OM21	Compliance	R4	10/25/2023	Antimony, total	0.00043 U	mg/L
OM21	Compliance	R4	10/25/2023	Arsenic, total	0.00130	mg/L
OM21	Compliance	R4	10/25/2023	Barium, total	0.0260	mg/L
OM21	Compliance	R4	10/25/2023	Beryllium, total	0.00059 U	mg/L
OM21	Compliance	R4	10/25/2023	Boron, total	8.10	mg/L
OM21	Compliance	R4	10/25/2023	Cadmium, total	0.00074 U	mg/L
OM21	Compliance	R4	10/25/2023	Calcium, total	320	mg/L
OM21	Compliance	R4	10/25/2023	Chloride, total	270	mg/L
OM21	Compliance	R4	10/25/2023	Chromium, total	0.0033	mg/L
OM21	Compliance	R4	10/25/2023	Cobalt, total	0.002 UJ	mg/L
OM21	Compliance	R4	10/25/2023	Dissolved Oxygen	0.590	mg/L
OM21	Compliance	R4	10/25/2023	Fluoride, total	0.260	mg/L
OM21	Compliance	R4	10/25/2023	Lead, total	0.00170 J+	mg/L
OM21	Compliance	R4	10/25/2023	Lithium, total	0.0400	mg/L
OM21	Compliance	R4	10/25/2023	Mercury, total	0.000520	mg/L
OM21	Compliance	R4	10/25/2023	Molybdenum, total	0.00210	mg/L
OM21	Compliance	R4	10/25/2023	Oxidation Reduction Potential	-35.0	mV
OM21	Compliance	R4	10/25/2023	pH (field)	6.7	SU
OM21	Compliance	R4	10/25/2023	Radium 226 + Radium 228, total	1.39	pCi/L
OM21	Compliance	R4	10/25/2023	Selenium, total	0.00074 U	mg/L
OM21	Compliance	R4	10/25/2023	Specific Conductance @ 25C (field)	3,840	micromhos/cm
OM21	Compliance	R4	10/25/2023	Sulfate, total	1,100	mg/L
OM21	Compliance	R4	10/25/2023	Temperature (Celsius)	15.3	degrees C
OM21	Compliance	R4	10/25/2023	Thallium, total	0.00038 U	mg/L
OM21	Compliance	R4	10/25/2023	Total Dissolved Solids	2,600	mg/L
OM21	Compliance	R4	10/25/2023	Turbidity, field	209	NTU
OM22D	Compliance	R4	10/23/2023	Antimony, total	0.00043 U	mg/L
OM22D	Compliance	R4	10/23/2023	Arsenic, total	0.00270	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM22D	Compliance	R4	10/23/2023	Barium, total	0.0490 J+	mg/L
OM22D	Compliance	R4	10/23/2023	Beryllium, total	0.00059 U	mg/L
OM22D	Compliance	R4	10/23/2023	Boron, total	60.0	mg/L
OM22D	Compliance	R4	10/23/2023	Cadmium, total	0.00074 U	mg/L
OM22D	Compliance	R4	10/23/2023	Calcium, total	610	mg/L
OM22D	Compliance	R4	10/23/2023	Chloride, total	810	mg/L
OM22D	Compliance	R4	10/23/2023	Chromium, total	0.00730	mg/L
OM22D	Compliance	R4	10/23/2023	Cobalt, total	0.00420	mg/L
OM22D	Compliance	R4	10/23/2023	Dissolved Oxygen	0.380	mg/L
OM22D	Compliance	R4	10/23/2023	Fluoride, total	0.229	mg/L
OM22D	Compliance	R4	10/23/2023	Lead, total	0.00190	mg/L
OM22D	Compliance	R4	10/23/2023	Lithium, total	0.0450	mg/L
OM22D	Compliance	R4	10/23/2023	Mercury, total	0.00014 U	mg/L
OM22D	Compliance	R4	10/23/2023	Molybdenum, total	0.120	mg/L
OM22D	Compliance	R4	10/23/2023	Oxidation Reduction Potential	-13.8	mV
OM22D	Compliance	R4	10/23/2023	pH (field)	6.9	SU
OM22D	Compliance	R4	10/23/2023	Radium 226 + Radium 228, total	2.45	pCi/L
OM22D	Compliance	R4	10/23/2023	Selenium, total	0.00074 U	mg/L
OM22D	Compliance	R4	10/23/2023	Specific Conductance @ 25C (field)	4,426	micromhos/cm
OM22D	Compliance	R4	10/23/2023	Sulfate, total	920	mg/L
OM22D	Compliance	R4	10/23/2023	Temperature (Celsius)	14.3	degrees C
OM22D	Compliance	R4	10/23/2023	Thallium, total	0.00038 U	mg/L
OM22D	Compliance	R4	10/23/2023	Total Dissolved Solids	4,000	mg/L
OM22D	Compliance	R4	10/23/2023	Turbidity, field	889	NTU
OM23D	Compliance	R4	10/23/2023	Antimony, total	0.00043 U	mg/L
OM23D	Compliance	R4	10/23/2023	Arsenic, total	0.00180	mg/L
OM23D	Compliance	R4	10/23/2023	Barium, total	0.0380 J+	mg/L
OM23D	Compliance	R4	10/23/2023	Beryllium, total	0.00059 U	mg/L
OM23D	Compliance	R4	10/23/2023	Boron, total	2.00	mg/L
OM23D	Compliance	R4	10/23/2023	Cadmium, total	0.00074 U	mg/L
OM23D	Compliance	R4	10/23/2023	Calcium, total	160	mg/L
OM23D	Compliance	R4	10/23/2023	Chloride, total	31.0	mg/L
OM23D	Compliance	R4	10/23/2023	Chromium, total	0.00400	mg/L
OM23D	Compliance	R4	10/23/2023	Cobalt, total	0.00220	mg/L
OM23D	Compliance	R4	10/23/2023	Dissolved Oxygen	0.730	mg/L
OM23D	Compliance	R4	10/23/2023	Fluoride, total	0.123	mg/L
OM23D	Compliance	R4	10/23/2023	Lead, total	0.00250	mg/L
OM23D	Compliance	R4	10/23/2023	Lithium, total	0.0360	mg/L
OM23D	Compliance	R4	10/23/2023	Mercury, total	0.00014 U	mg/L
OM23D	Compliance	R4	10/23/2023	Molybdenum, total	0.00240	mg/L
OM23D	Compliance	R4	10/23/2023	Oxidation Reduction Potential	-42.9	mV
OM23D	Compliance	R4	10/23/2023	pH (field)	7.0	SU
OM23D	Compliance	R4	10/23/2023	Radium 226 + Radium 228, total	1.26	pCi/L
OM23D	Compliance	R4	10/23/2023	Selenium, total	0.00074 U	mg/L
OM23D	Compliance	R4	10/23/2023	Specific Conductance @ 25C (field)	1,771	micromhos/cm
OM23D	Compliance	R4	10/23/2023	Sulfate, total	360	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM23D	Compliance	R4	10/23/2023	Temperature (Celsius)	14.6	degrees C
OM23D	Compliance	R4	10/23/2023	Thallium, total	0.00038 U	mg/L
OM23D	Compliance	R4	10/23/2023	Total Dissolved Solids	1,200	mg/L
OM23D	Compliance	R4	10/23/2023	Turbidity, field	1,000	NTU
OM24D	Compliance	R4	10/23/2023	Antimony, total	0.00043 U	mg/L
OM24D	Compliance	R4	10/23/2023	Arsenic, total	0.00530	mg/L
OM24D	Compliance	R4	10/23/2023	Barium, total	0.0820	mg/L
OM24D	Compliance	R4	10/23/2023	Beryllium, total	0.00059 U	mg/L
OM24D	Compliance	R4	10/23/2023	Boron, total	23.0	mg/L
OM24D	Compliance	R4	10/23/2023	Cadmium, total	0.00074 U	mg/L
OM24D	Compliance	R4	10/23/2023	Calcium, total	400	mg/L
OM24D	Compliance	R4	10/23/2023	Chloride, total	500	mg/L
OM24D	Compliance	R4	10/23/2023	Chromium, total	0.00790	mg/L
OM24D	Compliance	R4	10/23/2023	Cobalt, total	0.00340	mg/L
OM24D	Compliance	R4	10/23/2023	Dissolved Oxygen	1.30	mg/L
OM24D	Compliance	R4	10/23/2023	Fluoride, total	0.266	mg/L
OM24D	Compliance	R4	10/23/2023	Lead, total	0.00740	mg/L
OM24D	Compliance	R4	10/23/2023	Lithium, total	0.014	mg/L
OM24D	Compliance	R4	10/23/2023	Mercury, total	0.00014 U	mg/L
OM24D	Compliance	R4	10/23/2023	Molybdenum, total	0.00670	mg/L
OM24D	Compliance	R4	10/23/2023	Oxidation Reduction Potential	-45.2	mV
OM24D	Compliance	R4	10/23/2023	pH (field)	6.7	SU
OM24D	Compliance	R4	10/23/2023	Radium 226 + Radium 228, total	1.74	pCi/L
OM24D	Compliance	R4	10/23/2023	Selenium, total	0.00074 U	mg/L
OM24D	Compliance	R4	10/23/2023	Specific Conductance @ 25C (field)	3,344	micromhos/cm
OM24D	Compliance	R4	10/23/2023	Sulfate, total	820	mg/L
OM24D	Compliance	R4	10/23/2023	Temperature (Celsius)	15.6	degrees C
OM24D	Compliance	R4	10/23/2023	Thallium, total	0.00038 U	mg/L
OM24D	Compliance	R4	10/23/2023	Total Dissolved Solids	2,600	mg/L
OM24D	Compliance	R4	10/23/2023	Turbidity, field	371	NTU
OM25S	Compliance	R4	10/23/2023	Antimony, total	0.001	mg/L
OM25S	Compliance	R4	10/23/2023	Arsenic, total	0.0500	mg/L
OM25S	Compliance	R4	10/23/2023	Barium, total	0.630	mg/L
OM25S	Compliance	R4	10/23/2023	Beryllium, total	0.012 U	mg/L
OM25S	Compliance	R4	10/23/2023	Boron, total	34.0	mg/L
OM25S	Compliance	R4	10/23/2023	Cadmium, total	0.00088	mg/L
OM25S	Compliance	R4	10/23/2023	Calcium, total	480	mg/L
OM25S	Compliance	R4	10/23/2023	Chloride, total	650	mg/L
OM25S	Compliance	R4	10/23/2023	Chromium, total	0.190	mg/L
OM25S	Compliance	R4	10/23/2023	Cobalt, total	0.120	mg/L
OM25S	Compliance	R4	10/23/2023	Dissolved Oxygen	2.50	mg/L
OM25S	Compliance	R4	10/23/2023	Fluoride, total	0.175	mg/L
OM25S	Compliance	R4	10/23/2023	Lead, total	0.110	mg/L
OM25S	Compliance	R4	10/23/2023	Lithium, total	0.270	mg/L
OM25S	Compliance	R4	10/23/2023	Mercury, total	0.000230	mg/L
OM25S	Compliance	R4	10/23/2023	Molybdenum, total	0.0120	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM25S	Compliance	R4	10/23/2023	Oxidation Reduction Potential	-9.30	mV
OM25S	Compliance	R4	10/23/2023	pH (field)	6.8	SU
OM25S	Compliance	R4	10/23/2023	Radium 226 + Radium 228, total	7.02	pCi/L
OM25S	Compliance	R4	10/23/2023	Selenium, total	0.00360	mg/L
OM25S	Compliance	R4	10/23/2023	Specific Conductance @ 25C (field)	3,656	micromhos/cm
OM25S	Compliance	R4	10/23/2023	Sulfate, total	730	mg/L
OM25S	Compliance	R4	10/23/2023	Temperature (Celsius)	14.4	degrees C
OM25S	Compliance	R4	10/23/2023	Thallium, total	0.00110	mg/L
OM25S	Compliance	R4	10/23/2023	Total Dissolved Solids	2,900	mg/L
OM25S	Compliance	R4	10/23/2023	Turbidity, field	1,670	NTU
OR02	Compliance	R4	10/27/2023	Antimony, total	0.00059 J-	mg/L
OR02	Compliance	R4	10/27/2023	Arsenic, total	0.0280	mg/L
OR02	Compliance	R4	10/27/2023	Barium, total	0.220	mg/L
OR02	Compliance	R4	10/27/2023	Beryllium, total	0.00140	mg/L
OR02	Compliance	R4	10/27/2023	Boron, total	5.00	mg/L
OR02	Compliance	R4	10/27/2023	Cadmium, total	0.00074 U	mg/L
OR02	Compliance	R4	10/27/2023	Calcium, total	230	mg/L
OR02	Compliance	R4	10/27/2023	Chloride, total	190	mg/L
OR02	Compliance	R4	10/27/2023	Chromium, total	0.0370	mg/L
OR02	Compliance	R4	10/27/2023	Cobalt, total	0.0240	mg/L
OR02	Compliance	R4	10/27/2023	Dissolved Oxygen	2.30	mg/L
OR02	Compliance	R4	10/27/2023	Fluoride, total	0.123	mg/L
OR02	Compliance	R4	10/27/2023	Lead, total	0.0340	mg/L
OR02	Compliance	R4	10/27/2023	Lithium, total	0.0230	mg/L
OR02	Compliance	R4	10/27/2023	Mercury, total	0.00016	mg/L
OR02	Compliance	R4	10/27/2023	Molybdenum, total	0.00940	mg/L
OR02	Compliance	R4	10/27/2023	Oxidation Reduction Potential	-15.0	mV
OR02	Compliance	R4	10/27/2023	pH (field)	7.0	SU
OR02	Compliance	R4	10/27/2023	Radium 226 + Radium 228, total	4.54	pCi/L
OR02	Compliance	R4	10/27/2023	Selenium, total	0.00310	mg/L
OR02	Compliance	R4	10/27/2023	Specific Conductance @ 25C (field)	1,920	micromhos/cm
OR02	Compliance	R4	10/27/2023	Sulfate, total	230	mg/L
OR02	Compliance	R4	10/27/2023	Temperature (Celsius)	15.7	degrees C
OR02	Compliance	R4	10/27/2023	Thallium, total	0.00042	mg/L
OR02	Compliance	R4	10/27/2023	Total Dissolved Solids	1,300 J	mg/L
OR02	Compliance	R4	10/27/2023	Turbidity, field	1,000	NTU
OR03D	Compliance	R4	10/23/2023	Antimony, total	0.00084	mg/L
OR03D	Compliance	R4	10/23/2023	Arsenic, total	0.0200	mg/L
OR03D	Compliance	R4	10/23/2023	Barium, total	0.580	mg/L
OR03D	Compliance	R4	10/23/2023	Beryllium, total	0.00390	mg/L
OR03D	Compliance	R4	10/23/2023	Boron, total	27.0	mg/L
OR03D	Compliance	R4	10/23/2023	Cadmium, total	0.00091	mg/L
OR03D	Compliance	R4	10/23/2023	Calcium, total	420	mg/L
OR03D	Compliance	R4	10/23/2023	Chloride, total	820	mg/L
OR03D	Compliance	R4	10/23/2023	Chromium, total	0.140	mg/L
OR03D	Compliance	R4	10/23/2023	Cobalt, total	0.0680	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR03D	Compliance	R4	10/23/2023	Dissolved Oxygen	8.90	mg/L
OR03D	Compliance	R4	10/23/2023	Fluoride, total	0.228	mg/L
OR03D	Compliance	R4	10/23/2023	Lead, total	0.0500	mg/L
OR03D	Compliance	R4	10/23/2023	Lithium, total	0.140	mg/L
OR03D	Compliance	R4	10/23/2023	Mercury, total	0.00017	mg/L
OR03D	Compliance	R4	10/23/2023	Molybdenum, total	0.0110	mg/L
OR03D	Compliance	R4	10/23/2023	Oxidation Reduction Potential	-29.1	mV
OR03D	Compliance	R4	10/23/2023	pH (field)	7.4	SU
OR03D	Compliance	R4	10/23/2023	Radium 226 + Radium 228, total	6.16	pCi/L
OR03D	Compliance	R4	10/23/2023	Selenium, total	0.00500	mg/L
OR03D	Compliance	R4	10/23/2023	Specific Conductance @ 25C (field)	3,684	micromhos/cm
OR03D	Compliance	R4	10/23/2023	Sulfate, total	490	mg/L
OR03D	Compliance	R4	10/23/2023	Temperature (Celsius)	22.2	degrees C
OR03D	Compliance	R4	10/23/2023	Thallium, total	0.00082	mg/L
OR03D	Compliance	R4	10/23/2023	Total Dissolved Solids	4,800	mg/L
OR03D	Compliance	R4	10/23/2023	Turbidity, field	1,000	NTU
OR04D	Compliance	R4	10/25/2023	Antimony, total	0.00043 U	mg/L
OR04D	Compliance	R4	10/25/2023	Arsenic, total	0.00490	mg/L
OR04D	Compliance	R4	10/25/2023	Barium, total	0.0510	mg/L
OR04D	Compliance	R4	10/25/2023	Beryllium, total	0.00059 U	mg/L
OR04D	Compliance	R4	10/25/2023	Boron, total	80.0	mg/L
OR04D	Compliance	R4	10/25/2023	Cadmium, total	0.00074 U	mg/L
OR04D	Compliance	R4	10/25/2023	Calcium, total	660	mg/L
OR04D	Compliance	R4	10/25/2023	Chloride, total	1,100	mg/L
OR04D	Compliance	R4	10/25/2023	Chromium, total	0.00750	mg/L
OR04D	Compliance	R4	10/25/2023	Cobalt, total	0.00430 J+	mg/L
OR04D	Compliance	R4	10/25/2023	Dissolved Oxygen	3.30	mg/L
OR04D	Compliance	R4	10/25/2023	Fluoride, total	0.233	mg/L
OR04D	Compliance	R4	10/25/2023	Lead, total	0.00420	mg/L
OR04D	Compliance	R4	10/25/2023	Lithium, total	0.0630	mg/L
OR04D	Compliance	R4	10/25/2023	Mercury, total	0.000210	mg/L
OR04D	Compliance	R4	10/25/2023	Molybdenum, total	0.00520	mg/L
OR04D	Compliance	R4	10/25/2023	Oxidation Reduction Potential	-27.0	mV
OR04D	Compliance	R4	10/25/2023	pH (field)	6.5	SU
OR04D	Compliance	R4	10/25/2023	Radium 226 + Radium 228, total	0.500	pCi/L
OR04D	Compliance	R4	10/25/2023	Selenium, total	0.00074 U	mg/L
OR04D	Compliance	R4	10/25/2023	Specific Conductance @ 25C (field)	6,410	micromhos/cm
OR04D	Compliance	R4	10/25/2023	Sulfate, total	1,100	mg/L
OR04D	Compliance	R4	10/25/2023	Temperature (Celsius)	15.5	degrees C
OR04D	Compliance	R4	10/25/2023	Thallium, total	0.00038 U	mg/L
OR04D	Compliance	R4	10/25/2023	Total Dissolved Solids	4,000	mg/L
OR04D	Compliance	R4	10/25/2023	Turbidity, field	821	NTU
OR06A	Compliance	R4	10/26/2023	Antimony, total	0.00043 U	mg/L
OR06A	Compliance	R4	10/26/2023	Arsenic, total	0.0110	mg/L
OR06A	Compliance	R4	10/26/2023	Barium, total	0.0400	mg/L
OR06A	Compliance	R4	10/26/2023	Beryllium, total	0.00059 U	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR06A	Compliance	R4	10/26/2023	Boron, total	70.0	mg/L
OR06A	Compliance	R4	10/26/2023	Cadmium, total	0.00074 U	mg/L
OR06A	Compliance	R4	10/26/2023	Calcium, total	490	mg/L
OR06A	Compliance	R4	10/26/2023	Chloride, total	510	mg/L
OR06A	Compliance	R4	10/26/2023	Chromium, total	0.0028 U	mg/L
OR06A	Compliance	R4	10/26/2023	Cobalt, total	0.00220 J+	mg/L
OR06A	Compliance	R4	10/26/2023	Dissolved Oxygen	2.90	mg/L
OR06A	Compliance	R4	10/26/2023	Fluoride, total	0.157	mg/L
OR06A	Compliance	R4	10/26/2023	Lead, total	0.001 UJ	mg/L
OR06A	Compliance	R4	10/26/2023	Lithium, total	0.011	mg/L
OR06A	Compliance	R4	10/26/2023	Mercury, total	0.00014 U	mg/L
OR06A	Compliance	R4	10/26/2023	Molybdenum, total	0.0920	mg/L
OR06A	Compliance	R4	10/26/2023	Oxidation Reduction Potential	-30.0	mV
OR06A	Compliance	R4	10/26/2023	pH (field)	6.6	SU
OR06A	Compliance	R4	10/26/2023	Radium 226 + Radium 228, total	1.17	pCi/L
OR06A	Compliance	R4	10/26/2023	Selenium, total	0.00074 U	mg/L
OR06A	Compliance	R4	10/26/2023	Specific Conductance @ 25C (field)	3,430	micromhos/cm
OR06A	Compliance	R4	10/26/2023	Sulfate, total	650	mg/L
OR06A	Compliance	R4	10/26/2023	Temperature (Celsius)	17.3	degrees C
OR06A	Compliance	R4	10/26/2023	Thallium, total	0.00038 U	mg/L
OR06A	Compliance	R4	10/26/2023	Total Dissolved Solids	2,800	mg/L
OR06A	Compliance	R4	10/26/2023	Turbidity, field	368	NTU
OR11	Compliance	R4	10/24/2023	Antimony, total	0.00043 U	mg/L
OR11	Compliance	R4	10/24/2023	Arsenic, total	0.00270	mg/L
OR11	Compliance	R4	10/24/2023	Barium, total	0.0660	mg/L
OR11	Compliance	R4	10/24/2023	Beryllium, total	0.00059 U	mg/L
OR11	Compliance	R4	10/24/2023	Boron, total	11.0	mg/L
OR11	Compliance	R4	10/24/2023	Cadmium, total	0.00074 U	mg/L
OR11	Compliance	R4	10/24/2023	Calcium, total	140	mg/L
OR11	Compliance	R4	10/24/2023	Chloride, total	89.0	mg/L
OR11	Compliance	R4	10/24/2023	Chromium, total	0.00590	mg/L
OR11	Compliance	R4	10/24/2023	Cobalt, total	0.00360	mg/L
OR11	Compliance	R4	10/24/2023	Dissolved Oxygen	5.20	mg/L
OR11	Compliance	R4	10/24/2023	Fluoride, total	0.296	mg/L
OR11	Compliance	R4	10/24/2023	Lead, total	0.00390	mg/L
OR11	Compliance	R4	10/24/2023	Lithium, total	0.0210	mg/L
OR11	Compliance	R4	10/24/2023	Mercury, total	0.000270	mg/L
OR11	Compliance	R4	10/24/2023	Molybdenum, total	0.00780	mg/L
OR11	Compliance	R4	10/24/2023	Oxidation Reduction Potential	2.00	mV
OR11	Compliance	R4	10/24/2023	pH (field)	7.3	SU
OR11	Compliance	R4	10/24/2023	Radium 226 + Radium 228, total	1.10	pCi/L
OR11	Compliance	R4	10/24/2023	Selenium, total	0.00074 U	mg/L
OR11	Compliance	R4	10/24/2023	Specific Conductance @ 25C (field)	1,350	micromhos/cm
OR11	Compliance	R4	10/24/2023	Sulfate, total	170	mg/L
OR11	Compliance	R4	10/24/2023	Temperature (Celsius)	15.5	degrees C
OR11	Compliance	R4	10/24/2023	Thallium, total	0.00038 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR11	Compliance	R4	10/24/2023	Total Dissolved Solids	840	mg/L
OR11	Compliance	R4	10/24/2023	Turbidity, field	450	NTU
OR13S	Compliance	R4	10/17/2023	Antimony, total	0.00076	mg/L
OR13S	Compliance	R4	10/17/2023	Arsenic, total	0.0400	mg/L
OR13S	Compliance	R4	10/17/2023	Barium, total	0.0780	mg/L
OR13S	Compliance	R4	10/17/2023	Beryllium, total	0.00059 U	mg/L
OR13S	Compliance	R4	10/17/2023	Boron, total	3.30	mg/L
OR13S	Compliance	R4	10/17/2023	Cadmium, total	0.00074 U	mg/L
OR13S	Compliance	R4	10/17/2023	Calcium, total	260	mg/L
OR13S	Compliance	R4	10/17/2023	Chloride, total	39.0	mg/L
OR13S	Compliance	R4	10/17/2023	Chromium, total	0.00660	mg/L
OR13S	Compliance	R4	10/17/2023	Cobalt, total	0.00500	mg/L
OR13S	Compliance	R4	10/17/2023	Dissolved Oxygen	3.80	mg/L
OR13S	Compliance	R4	10/17/2023	Fluoride, total	0.218	mg/L
OR13S	Compliance	R4	10/17/2023	Lead, total	0.0130	mg/L
OR13S	Compliance	R4	10/17/2023	Lithium, total	0.0210	mg/L
OR13S	Compliance	R4	10/17/2023	Mercury, total	0.00014 U	mg/L
OR13S	Compliance	R4	10/17/2023	Molybdenum, total	0.00880	mg/L
OR13S	Compliance	R4	10/17/2023	Oxidation Reduction Potential	20.0	mV
OR13S	Compliance	R4	10/17/2023	pH (field)	6.1	SU
OR13S	Compliance	R4	10/17/2023	Radium 226 + Radium 228, total	1.55	pCi/L
OR13S	Compliance	R4	10/17/2023	Selenium, total	0.00087	mg/L
OR13S	Compliance	R4	10/17/2023	Specific Conductance @ 25C (field)	1,900	micromhos/cm
OR13S	Compliance	R4	10/17/2023	Sulfate, total	560	mg/L
OR13S	Compliance	R4	10/17/2023	Temperature (Celsius)	15.0	degrees C
OR13S	Compliance	R4	10/17/2023	Thallium, total	0.00038 U	mg/L
OR13S	Compliance	R4	10/17/2023	Total Dissolved Solids	1,400	mg/L
OR13S	Compliance	R4	10/17/2023	Turbidity, field	210	NTU
OR13D	Compliance	R4	10/26/2023	Antimony, total	0.00044	mg/L
OR13D	Compliance	R4	10/26/2023	Arsenic, total	0.0300	mg/L
OR13D	Compliance	R4	10/26/2023	Barium, total	0.120	mg/L
OR13D	Compliance	R4	10/26/2023	Beryllium, total	0.00074	mg/L
OR13D	Compliance	R4	10/26/2023	Boron, total	1.80	mg/L
OR13D	Compliance	R4	10/26/2023	Cadmium, total	0.00074 U	mg/L
OR13D	Compliance	R4	10/26/2023	Calcium, total	130	mg/L
OR13D	Compliance	R4	10/26/2023	Chloride, total	37.0	mg/L
OR13D	Compliance	R4	10/26/2023	Chromium, total	0.0300	mg/L
OR13D	Compliance	R4	10/26/2023	Cobalt, total	0.00620 J+	mg/L
OR13D	Compliance	R4	10/26/2023	Dissolved Oxygen	3.30	mg/L
OR13D	Compliance	R4	10/26/2023	Fluoride, total	0.126	mg/L
OR13D	Compliance	R4	10/26/2023	Lead, total	0.0110	mg/L
OR13D	Compliance	R4	10/26/2023	Lithium, total	0.0320	mg/L
OR13D	Compliance	R4	10/26/2023	Mercury, total	0.00014 U	mg/L
OR13D	Compliance	R4	10/26/2023	Molybdenum, total	0.00940	mg/L
OR13D	Compliance	R4	10/26/2023	Oxidation Reduction Potential	-53.0	mV
OR13D	Compliance	R4	10/26/2023	pH (field)	6.8	SU

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR13D	Compliance	R4	10/26/2023	Radium 226 + Radium 228, total	0.440	pCi/L
OR13D	Compliance	R4	10/26/2023	Selenium, total	0.00130	mg/L
OR13D	Compliance	R4	10/26/2023	Specific Conductance @ 25C (field)	1,920	micromhos/cm
OR13D	Compliance	R4	10/26/2023	Sulfate, total	280	mg/L
OR13D	Compliance	R4	10/26/2023	Temperature (Celsius)	15.7	degrees C
OR13D	Compliance	R4	10/26/2023	Thallium, total	0.00038 U	mg/L
OR13D	Compliance	R4	10/26/2023	Total Dissolved Solids	1,200	mg/L
OR13D	Compliance	R4	10/26/2023	Turbidity, field	1,000	NTU
OR14D	Compliance	R4	10/25/2023	Antimony, total	0.0013	mg/L
OR14D	Compliance	R4	10/25/2023	Arsenic, total	0.0300	mg/L
OR14D	Compliance	R4	10/25/2023	Barium, total	0.260	mg/L
OR14D	Compliance	R4	10/25/2023	Beryllium, total	0.00220	mg/L
OR14D	Compliance	R4	10/25/2023	Boron, total	19.0	mg/L
OR14D	Compliance	R4	10/25/2023	Cadmium, total	0.00410	mg/L
OR14D	Compliance	R4	10/25/2023	Calcium, total	480	mg/L
OR14D	Compliance	R4	10/25/2023	Chloride, total	360	mg/L
OR14D	Compliance	R4	10/25/2023	Chromium, total	0.0650	mg/L
OR14D	Compliance	R4	10/25/2023	Cobalt, total	0.0380	mg/L
OR14D	Compliance	R4	10/25/2023	Dissolved Oxygen	2.30	mg/L
OR14D	Compliance	R4	10/25/2023	Fluoride, total	0.253	mg/L
OR14D	Compliance	R4	10/25/2023	Lead, total	0.0490	mg/L
OR14D	Compliance	R4	10/25/2023	Lithium, total	0.0830	mg/L
OR14D	Compliance	R4	10/25/2023	Mercury, total	0.000230	mg/L
OR14D	Compliance	R4	10/25/2023	Molybdenum, total	0.0140	mg/L
OR14D	Compliance	R4	10/25/2023	Oxidation Reduction Potential	-42.0	mV
OR14D	Compliance	R4	10/25/2023	pH (field)	7.0	SU
OR14D	Compliance	R4	10/25/2023	Radium 226 + Radium 228, total	2.65	pCi/L
OR14D	Compliance	R4	10/25/2023	Selenium, total	0.00610	mg/L
OR14D	Compliance	R4	10/25/2023	Specific Conductance @ 25C (field)	3,150	micromhos/cm
OR14D	Compliance	R4	10/25/2023	Sulfate, total	780	mg/L
OR14D	Compliance	R4	10/25/2023	Temperature (Celsius)	16.7	degrees C
OR14D	Compliance	R4	10/25/2023	Thallium, total	0.0008	mg/L
OR14D	Compliance	R4	10/25/2023	Total Dissolved Solids	2,200	mg/L
OR14D	Compliance	R4	10/25/2023	Turbidity, field	1,000	NTU
OR19	Compliance	R4	10/25/2023	Antimony, total	0.00043 U	mg/L
OR19	Compliance	R4	10/25/2023	Arsenic, total	0.00690	mg/L
OR19	Compliance	R4	10/25/2023	Barium, total	0.110	mg/L
OR19	Compliance	R4	10/25/2023	Beryllium, total	0.00100	mg/L
OR19	Compliance	R4	10/25/2023	Boron, total	13.0	mg/L
OR19	Compliance	R4	10/25/2023	Cadmium, total	0.00074 U	mg/L
OR19	Compliance	R4	10/25/2023	Calcium, total	340	mg/L
OR19	Compliance	R4	10/25/2023	Chloride, total	160	mg/L
OR19	Compliance	R4	10/25/2023	Chromium, total	0.0270	mg/L
OR19	Compliance	R4	10/25/2023	Cobalt, total	0.0120	mg/L
OR19	Compliance	R4	10/25/2023	Dissolved Oxygen	7.50	mg/L
OR19	Compliance	R4	10/25/2023	Fluoride, total	0.366	mg/L

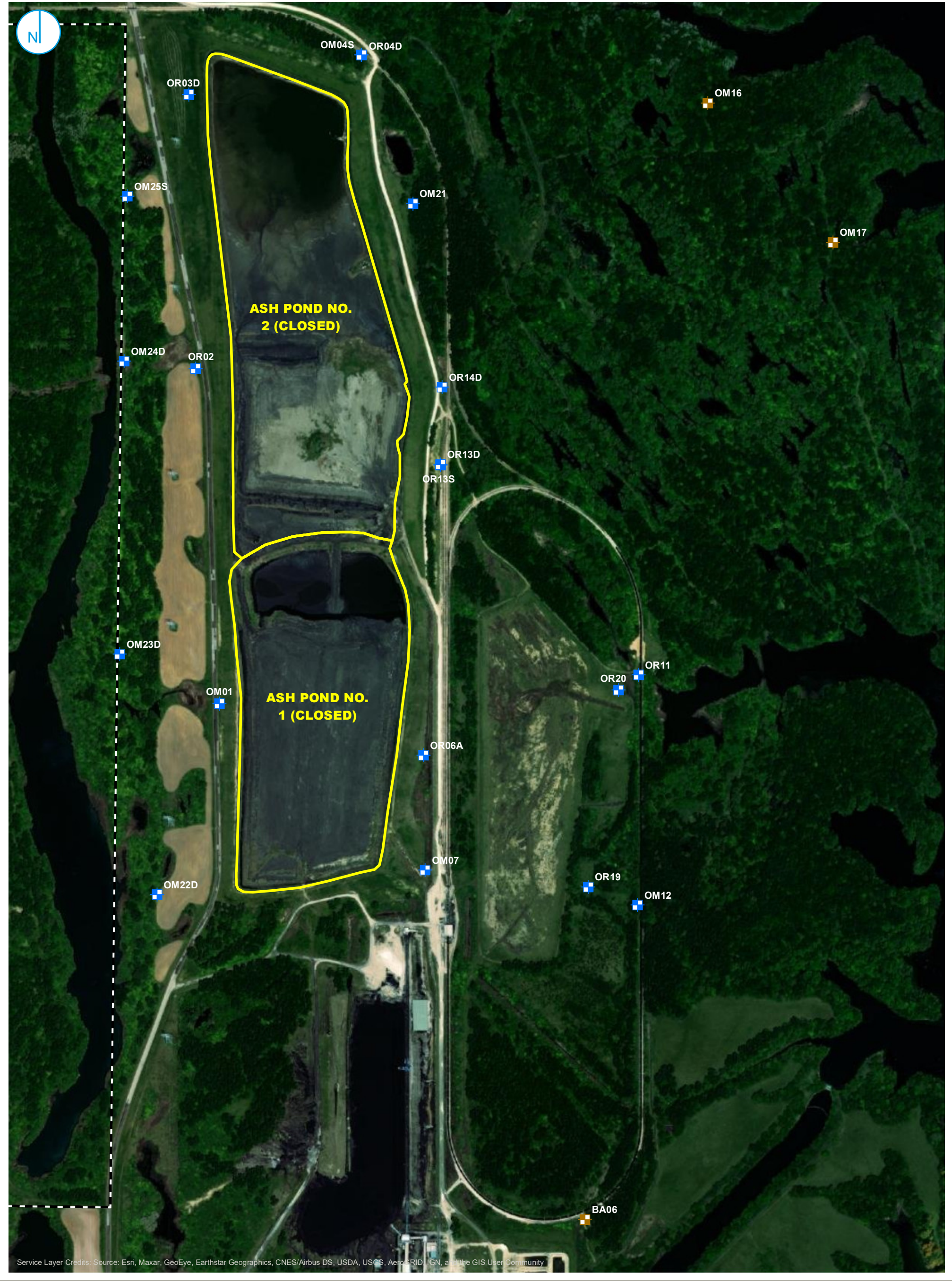
TABLE 1.
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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR19	Compliance	R4	10/25/2023	Lead, total	0.0170	mg/L
OR19	Compliance	R4	10/25/2023	Lithium, total	0.0370	mg/L
OR19	Compliance	R4	10/25/2023	Mercury, total	0.00014	mg/L
OR19	Compliance	R4	10/25/2023	Molybdenum, total	0.00520	mg/L
OR19	Compliance	R4	10/25/2023	Oxidation Reduction Potential	-53.0	mV
OR19	Compliance	R4	10/25/2023	pH (field)	7.0	SU
OR19	Compliance	R4	10/25/2023	Radium 226 + Radium 228, total	2.15	pCi/L
OR19	Compliance	R4	10/25/2023	Selenium, total	0.00120	mg/L
OR19	Compliance	R4	10/25/2023	Specific Conductance @ 25C (field)	2,950	micromhos/cm
OR19	Compliance	R4	10/25/2023	Sulfate, total	920	mg/L
OR19	Compliance	R4	10/25/2023	Temperature (Celsius)	16.3	degrees C
OR19	Compliance	R4	10/25/2023	Thallium, total	0.00038 U	mg/L
OR19	Compliance	R4	10/25/2023	Total Dissolved Solids	2,200	mg/L
OR19	Compliance	R4	10/25/2023	Turbidity, field	1,000	NTU
OR20	Compliance	R4	10/24/2023	Antimony, total	0.0013	mg/L
OR20	Compliance	R4	10/24/2023	Arsenic, total	0.0440	mg/L
OR20	Compliance	R4	10/24/2023	Barium, total	0.100	mg/L
OR20	Compliance	R4	10/24/2023	Beryllium, total	0.00110	mg/L
OR20	Compliance	R4	10/24/2023	Boron, total	31.0	mg/L
OR20	Compliance	R4	10/24/2023	Cadmium, total	0.00074 U	mg/L
OR20	Compliance	R4	10/24/2023	Calcium, total	220	mg/L
OR20	Compliance	R4	10/24/2023	Chloride, total	300	mg/L
OR20	Compliance	R4	10/24/2023	Chromium, total	0.0220	mg/L
OR20	Compliance	R4	10/24/2023	Cobalt, total	0.0130	mg/L
OR20	Compliance	R4	10/24/2023	Dissolved Oxygen	2.30	mg/L
OR20	Compliance	R4	10/24/2023	Fluoride, total	0.499	mg/L
OR20	Compliance	R4	10/24/2023	Lead, total	0.0190	mg/L
OR20	Compliance	R4	10/24/2023	Lithium, total	0.0560	mg/L
OR20	Compliance	R4	10/24/2023	Mercury, total	0.00014 U	mg/L
OR20	Compliance	R4	10/24/2023	Molybdenum, total	0.0420	mg/L
OR20	Compliance	R4	10/24/2023	Oxidation Reduction Potential	-48.0	mV
OR20	Compliance	R4	10/24/2023	pH (field)	6.8	SU
OR20	Compliance	R4	10/24/2023	Radium 226 + Radium 228, total	0.493	pCi/L
OR20	Compliance	R4	10/24/2023	Selenium, total	0.00100	mg/L
OR20	Compliance	R4	10/24/2023	Specific Conductance @ 25C (field)	2,590	micromhos/cm
OR20	Compliance	R4	10/24/2023	Sulfate, total	360	mg/L
OR20	Compliance	R4	10/24/2023	Temperature (Celsius)	14.7	degrees C
OR20	Compliance	R4	10/24/2023	Thallium, total	0.00038 U	mg/L
OR20	Compliance	R4	10/24/2023	Total Dissolved Solids	1,600	mg/L
OR20	Compliance	R4	10/24/2023	Turbidity, field	1,000	NTU

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Notes:
C = Celsius
cm = centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
SU = Standard Units
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity, but the result may be biased low.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

FIGURES



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

MONITORING WELL LOCATION MAP

FIGURE 1

ATTACHMENTS

ATTACHMENT A
GROUNDWATER ELEVATION DATA

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Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
BA06	Background	UA	01/09/2023	28.19	567.44
BA06	Background	UA	04/08/2023	20.99	574.64
BA06	Background	UA	05/08/2023	21.46	574.17
BA06	Background	UA	06/17/2023	26.66	568.97
BA06	Background	UA	07/17/2023	24.89	570.74
BA06	Background	UA	08/16/2023	22.00	573.63
BA06	Background	UA	09/16/2023	23.52	572.11
BA06	Background	UA	10/16/2023	24.70	570.93
BA06	Background	UA	11/20/2023	24.38	571.25
BA06	Background	UA	12/04/2023	22.62	573.01
OM01	Compliance	MS	01/09/2023	13.87	581.57
OM01	Compliance	MS	04/08/2023	9.99	585.44
OM01	Compliance	MS	05/08/2023	10.34	585.09
OM01	Compliance	MS	06/17/2023	11.84	583.60
OM01	Compliance	MS	07/17/2023	11.97	583.47
OM01	Compliance	MS	08/16/2023	11.79	583.65
OM01	Compliance	MS	09/16/2023	12.16	583.28
OM01	Compliance	MS	10/16/2023	13.01	582.43
OM01	Compliance	MS	11/20/2023	13.73	581.71
OM01	Compliance	MS	12/05/2023	13.78	581.66
OM04S	Compliance	MS	01/09/2023	21.09	586.15
OM04S	Compliance	MS	04/08/2023	17.27	589.96
OM04S	Compliance	MS	05/08/2023	17.50	589.73
OM04S	Compliance	MS	06/17/2023	18.87	588.36
OM04S	Compliance	MS	07/17/2023	19.80	587.43
OM04S	Compliance	MS	08/16/2023	20.26	586.97
OM04S	Compliance	MS	09/16/2023	20.60	586.63
OM04S	Compliance	MS	10/16/2023	21.19	586.05
OM04S	Compliance	MS	11/20/2023	21.37	585.87
OM04S	Compliance	MS	12/05/2023	21.48	585.76
OM07	Compliance	MS	01/09/2023	13.17	583.23
OM07	Compliance	MS	04/08/2023	12.95	583.44
OM07	Compliance	MS	05/08/2023	12.09	584.29
OM07	Compliance	MS	06/17/2023	12.13	584.26
OM07	Compliance	MS	07/17/2023	12.50	583.89
OM07	Compliance	MS	08/16/2023	12.71	583.68
OM07	Compliance	MS	09/16/2023	12.80	583.59
OM07	Compliance	MS	10/16/2023	13.11	583.29
OM07	Compliance	MS	11/20/2023	13.21	583.19
OM07	Compliance	MS	12/04/2023	13.37	583.03
OM12	Compliance	MS	01/09/2023	17.61	577.66
OM12	Compliance	MS	04/08/2023	18.40	576.86
OM12	Compliance	MS	05/08/2023	15.85	579.41
OM12	Compliance	MS	06/17/2023	14.06	581.20
OM12	Compliance	MS	07/17/2023	14.92	580.35
OM12	Compliance	MS	08/16/2023	14.90	580.37

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CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
OM12	Compliance	MS	09/16/2023	15.15	580.12
OM12	Compliance	MS	10/16/2023	15.89	579.38
OM12	Compliance	MS	11/20/2023	18.22	577.05
OM12	Compliance	MS	12/04/2023	18.45	576.82
OM16	Background	MS	01/09/2023	24.90	582.86
OM16	Background	MS	04/08/2023	24.58	583.17
OM16	Background	MS	05/08/2023	22.95	584.80
OM16	Background	MS	06/17/2023	22.99	584.76
OM16	Background	MS	07/17/2023	24.21	583.54
OM16	Background	MS	08/16/2023	25.13	582.62
OM16	Background	MS	09/16/2023	25.99	581.76
OM16	Background	MS	10/16/2023	26.94	580.82
OM16	Background	MS	11/21/2023	28.64	579.12
OM16	Background	MS	12/04/2023	27.86	579.90
OM17	Background	MS	01/09/2023	13.21	578.76
OM17	Background	MS	08/16/2023	11.44	580.53
OM17	Background	MS	10/16/2023	15.26	576.71
OM17	Background	MS	11/21/2023	12.85	579.12
OM17	Background	MS	12/04/2023	12.11	579.86
OM21	Compliance	MS	01/09/2023	11.88	594.56
OM21	Compliance	MS	04/08/2023	8.92	597.51
OM21	Compliance	MS	05/08/2023	8.39	598.03
OM21	Compliance	MS	06/17/2023	9.74	596.69
OM21	Compliance	MS	07/17/2023	10.70	595.73
OM21	Compliance	MS	10/16/2023	12.66	593.78
OM21	Compliance	MS	11/20/2023	12.64	593.80
OM21	Compliance	MS	12/04/2023	12.87	593.57
OM22D	Compliance	MS	01/09/2023	20.70	578.16
OM22D	Compliance	MS	04/08/2023	17.50	581.34
OM22D	Compliance	MS	05/08/2023	17.80	581.04
OM22D	Compliance	MS	06/17/2023	18.92	579.93
OM22D	Compliance	MS	07/17/2023	18.72	580.13
OM22D	Compliance	MS	08/16/2023	18.49	580.36
OM22D	Compliance	MS	09/16/2023	18.92	579.93
OM22D	Compliance	MS	10/16/2023	20.08	578.78
OM22D	Compliance	MS	11/20/2023	20.43	578.43
OM22D	Compliance	MS	12/05/2023	26.43	572.43
OM23D	Compliance	MS	01/09/2023	39.29	573.76
OM23D	Compliance	MS	04/08/2023	37.96	575.08
OM23D	Compliance	MS	05/08/2023	37.65	575.40
OM23D	Compliance	MS	06/17/2023	38.08	574.97
OM23D	Compliance	MS	07/17/2023	38.54	574.51
OM23D	Compliance	MS	10/16/2023	38.95	574.10
OM23D	Compliance	MS	11/20/2023	39.26	573.79
OM23D	Compliance	MS	12/05/2023	39.36	573.69
OM24D	Compliance	MS	01/09/2023	4.00	572.72

ATTACHMENT A
GROUNDWATER ELEVATION DATA
2023 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
OM24D	Compliance	MS	04/08/2023	1.82	574.90
OM24D	Compliance	MS	05/08/2023	1.90	574.82
OM24D	Compliance	MS	11/21/2023	4.77	571.95
OM24D	Compliance	MS	12/04/2023	4.32	572.40
OM25S	Compliance	MS	01/09/2023	57.97	570.77
OM25S	Compliance	MS	04/08/2023	57.70	571.04
OM25S	Compliance	MS	05/08/2023	57.78	570.96
OM25S	Compliance	MS	10/16/2023	15.20	613.54
OM25S	Compliance	MS	11/21/2023	58.18	570.56
OM25S	Compliance	MS	12/04/2023	58.24	570.50
OR02	Compliance	MS	01/09/2023	6.27	595.04
OR02	Compliance	MS	04/08/2023	4.44	596.85
OR02	Compliance	MS	05/08/2023	3.74	597.56
OR02	Compliance	MS	06/17/2023	7.08	594.22
OR02	Compliance	MS	07/17/2023	5.95	595.35
OR02	Compliance	MS	08/16/2023	6.04	595.26
OR02	Compliance	MS	09/16/2023	7.80	593.50
OR02	Compliance	MS	10/16/2023	7.81	593.50
OR02	Compliance	MS	11/21/2023	7.55	593.76
OR02	Compliance	MS	12/04/2023	6.34	594.97
OR03D	Compliance	MS	01/09/2023	44.19	583.76
OR03D	Compliance	MS	04/08/2023	44.55	583.38
OR03D	Compliance	MS	05/08/2023	44.36	583.57
OR03D	Compliance	MS	06/17/2023	44.75	583.19
OR03D	Compliance	MS	07/17/2023	44.82	583.12
OR03D	Compliance	MS	08/16/2023	45.01	582.93
OR03D	Compliance	MS	09/16/2023	45.05	582.89
OR03D	Compliance	MS	10/16/2023	45.45	582.50
OR03D	Compliance	MS	11/20/2023	45.09	582.86
OR03D	Compliance	MS	12/05/2023	45.29	582.66
OR04D	Compliance	MS	01/09/2023	21.52	585.97
OR04D	Compliance	MS	04/08/2023	19.91	587.57
OR04D	Compliance	MS	05/08/2023	20.10	587.38
OR04D	Compliance	MS	06/17/2023	20.63	586.85
OR04D	Compliance	MS	07/17/2023	20.95	586.53
OR04D	Compliance	MS	08/16/2023	21.18	586.30
OR04D	Compliance	MS	09/16/2023	21.46	586.02
OR04D	Compliance	MS	10/16/2023	23.01	584.48
OR04D	Compliance	MS	11/20/2023	21.80	585.69
OR04D	Compliance	MS	12/04/2023	21.92	585.57
OR06A	Compliance	MS	01/09/2023	14.23	581.05
OR06A	Compliance	MS	04/08/2023	13.18	582.09
OR06A	Compliance	MS	05/08/2023	12.71	582.56
OR06A	Compliance	MS	06/17/2023	13.53	581.74
OR06A	Compliance	MS	10/16/2023	15.14	580.14
OR06A	Compliance	MS	11/20/2023	14.74	580.54

ATTACHMENT A
GROUNDWATER ELEVATION DATA
2023 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
OR06A	Compliance	MS	12/04/2023	14.71	580.57
OR11	Compliance	MS	01/09/2023	32.53	564.02
OR11	Compliance	MS	04/08/2023	30.51	566.04
OR11	Compliance	MS	05/08/2023	30.91	565.64
OR11	Compliance	MS	06/17/2023	32.12	564.43
OR11	Compliance	MS	07/17/2023	31.65	564.90
OR11	Compliance	MS	08/16/2023	31.46	565.09
OR11	Compliance	MS	09/16/2023	31.87	564.68
OR11	Compliance	MS	10/16/2023	32.28	564.27
OR11	Compliance	MS	11/20/2023	32.42	564.13
OR11	Compliance	MS	12/04/2023	32.43	564.12
OR13S	Compliance	MS	01/09/2023	13.39	589.15
OR13S	Compliance	MS	06/17/2023	13.02	589.52
OR13S	Compliance	MS	07/17/2023	13.30	589.24
OR13S	Compliance	MS	08/16/2023	13.25	589.29
OR13S	Compliance	MS	10/16/2023	14.72	587.82
OR13S	Compliance	MS	11/20/2023	14.92	587.62
OR13S	Compliance	MS	12/04/2023	14.65	587.89
OR13D	Compliance	MS	01/09/2023	13.57	588.95
OR13D	Compliance	MS	04/08/2023	12.18	590.33
OR13D	Compliance	MS	05/08/2023	12.00	590.52
OR13D	Compliance	MS	06/17/2023	12.92	589.60
OR13D	Compliance	MS	07/17/2023	13.31	589.21
OR13D	Compliance	MS	08/16/2023	13.61	588.91
OR13D	Compliance	MS	10/16/2023	14.62	587.90
OR13D	Compliance	MS	11/20/2023	14.66	587.86
OR13D	Compliance	MS	12/04/2023	14.68	587.84
OR14D	Compliance	MS	01/09/2023	10.24	588.52
OR14D	Compliance	MS	04/08/2023	8.92	589.82
OR14D	Compliance	MS	05/08/2023	8.47	590.28
OR14D	Compliance	MS	06/17/2023	9.75	589.00
OR14D	Compliance	MS	07/17/2023	9.92	588.83
OR14D	Compliance	MS	08/16/2023	11.65	587.10
OR14D	Compliance	MS	09/16/2023	11.74	587.01
OR14D	Compliance	MS	10/16/2023	11.79	586.97
OR14D	Compliance	MS	11/20/2023	11.66	587.10
OR14D	Compliance	MS	12/04/2023	11.22	587.54
OR19	Compliance	MS	01/09/2023	26.39	571.34
OR19	Compliance	MS	04/08/2023	25.05	572.68
OR19	Compliance	MS	05/08/2023	24.36	573.37
OR19	Compliance	MS	06/17/2023	25.21	572.52
OR19	Compliance	MS	07/17/2023	25.74	571.99
OR19	Compliance	MS	08/16/2023	25.62	572.11
OR19	Compliance	MS	09/16/2023	25.11	572.62
OR19	Compliance	MS	10/16/2023	25.80	571.93
OR19	Compliance	MS	11/20/2023	25.95	571.78

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
OR19	Compliance	MS	12/04/2023	26.13	571.60
OR20	Compliance	MS	01/09/2023	22.49	565.08
OR20	Compliance	MS	04/08/2023	20.89	566.68
OR20	Compliance	MS	05/08/2023	21.12	566.45
OR20	Compliance	MS	06/17/2023	21.80	565.77
OR20	Compliance	MS	07/17/2023	21.82	565.75
OR20	Compliance	MS	08/16/2023	21.71	565.86
OR20	Compliance	MS	09/16/2023	21.91	565.66
OR20	Compliance	MS	10/16/2023	22.30	565.27
OR20	Compliance	MS	11/20/2023	22.37	565.20
OR20	Compliance	MS	12/04/2023	22.37	565.20

Notes:
Due to malfunctioning pressure transducer, data gaps exist in monthly water level elevations prior to the fourth quarter. Monthly depth to water measurements were collected manually in the fourth quarter.
BMP = below measuring point
NAVD88 = North American Vertical Datum of 1988
Monitored Unit Abbreviations:
MS = mine spoils
UA = uppermost aquifer

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ATTACHMENT B
LABORATORY ANALYTICAL 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

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 that reads 'Gail Schindler'.

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

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order GA01700

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 GA02003

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 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



ANALYTICAL RESULTS

Sample: GA01700-08
Name: BA06
Matrix: Ground Water - Grab

Sampled: 01/10/23 14:56

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	590	mg/L		01/21/23 21:22	100	100	01/21/23 21:22	LAM	EPA 300.0 REV 2.1
Sulfate	300	mg/L		01/24/23 23:25	100	100	01/24/23 23:25	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	28.18	Feet		01/10/23 14:56	1		01/10/23 14:56	FIELD	Field*
Dissolved oxygen, Field	3.6	mg/L		01/10/23 14:56	1		01/10/23 14:56	FIELD	Field*
Oxidation Reduction Potential	-26.0	mV		01/10/23 14:56	1	-500	01/10/23 14:56	FIELD	Field*
pH, Field Measured	6.65	pH Units		01/10/23 14:56	1		01/10/23 14:56	FIELD	Field*
Specific Conductance, Field Measured	3090	umhos/cm		01/10/23 14:56	1		01/10/23 14:56	FIELD	Field*
Temperature, Field Measured	53.0	°F		01/10/23 14:56	1		01/10/23 14:56	FIELD	Field*
Temperature, Field Measured	11.7	°C		01/10/23 14:56	1		01/10/23 14:56	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/10/23 14:56	1	0.00	01/10/23 14:56	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	320	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	0.258	mg/L		01/27/23 13:28	1	0.250	01/27/23 13:28	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2100	mg/L		01/11/23 09:12	1	26	01/11/23 10:36	CPS	SM 2540C
Soluble Nutrients - PIA									
Ammonia, Dissolved	< 0.10	mg/L		01/12/23 14:41	1	0.10	01/12/23 14:41	TTH	EPA 350.1 REV2
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/16/23 09:23	5	3.0	01/18/23 09:46	JMW	EPA 6020A
Arsenic	9.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:46	JMW	EPA 6020A
Barium	120	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:46	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:46	JMW	EPA 6020A
Boron	7300	ug/L		01/16/23 09:23	5	11	01/18/23 09:46	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:46	JMW	EPA 6020A
Calcium	300	mg/L		01/19/23 08:31	5	0.20	01/20/23 12:26	JMW	EPA 6020A
Chromium	< 4.0	ug/L		01/16/23 09:23	5	4.0	01/18/23 09:46	JMW	EPA 6020A
Cobalt	9.9	ug/L		01/16/23 09:23	5	2.0	01/18/23 09:46	JMW	EPA 6020A
Lead	1.4	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:46	JMW	EPA 6020A



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

ANALYTICAL RESULTS

Sample: GA01700-08

Name: BA06

Matrix: Ground Water - Grab

Sampled: 01/10/23 14:56

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Magnesium	200	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:46	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/16/23 09:23	5	0.20	01/18/23 09:46	JMW	EPA 6020A
Molybdenum	1.4	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:46	JMW	EPA 6020A
Potassium	0.78	mg/L	B	01/16/23 09:23	5	0.10	01/18/23 09:46	JMW	EPA 6020A
Selenium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:46	JMW	EPA 6020A
Sodium	16	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:46	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:46	JMW	EPA 6020A
Lithium	< 0.020	mg/L		01/16/23 09:23	1	0.020	01/24/23 14:30	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA01700-17
Name: OM12
Matrix: Ground Water - Grab

Sampled: 01/10/23 15:15

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	5.5	mg/L		01/21/23 21:40	1	1.0	01/21/23 21:40	LAM	EPA 300.0 REV 2.1
Sulfate	370	mg/L		01/24/23 23:43	100	100	01/24/23 23:43	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	17.51	Feet		01/10/23 15:15	1		01/10/23 15:15	FIELD	Field*
Dissolved oxygen, Field	2.6	mg/L		01/10/23 15:15	1		01/10/23 15:15	FIELD	Field*
Oxidation Reduction Potential	-39.0	mV		01/10/23 15:15	1	-500	01/10/23 15:15	FIELD	Field*
pH, Field Measured	6.60	pH Units		01/10/23 15:15	1		01/10/23 15:15	FIELD	Field*
Specific Conductance, Field Measured	2090	umhos/cm		01/10/23 15:15	1		01/10/23 15:15	FIELD	Field*
Temperature, Field Measured	12.1	°C		01/10/23 15:15	1		01/10/23 15:15	FIELD	Field*
Temperature, Field Measured	53.8	°F		01/10/23 15:15	1		01/10/23 15:15	FIELD	Field*
Turbidity, Field Measured	597	NTU		01/10/23 15:15	1	0.00	01/10/23 15:15	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	480	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	0.252	mg/L		01/27/23 13:29	1	0.250	01/27/23 13:29	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1500	mg/L		01/11/23 09:12	1	26	01/11/23 10:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/16/23 09:23	5	3.0	01/18/23 09:49	JMW	EPA 6020A
Arsenic	28	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:49	JMW	EPA 6020A
Barium	290	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:49	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:49	JMW	EPA 6020A
Boron	140	ug/L		01/16/23 09:23	5	11	01/18/23 09:49	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:49	JMW	EPA 6020A
Calcium	300	mg/L		01/19/23 08:31	5	0.20	01/20/23 12:30	JMW	EPA 6020A
Chromium	6.8	ug/L		01/16/23 09:23	5	4.0	01/18/23 09:49	JMW	EPA 6020A
Cobalt	4.3	ug/L		01/16/23 09:23	5	2.0	01/18/23 09:49	JMW	EPA 6020A
Lead	7.8	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:49	JMW	EPA 6020A
Magnesium	120	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:49	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/16/23 09:23	5	0.20	01/18/23 09:49	JMW	EPA 6020A
Molybdenum	3.8	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:49	JMW	EPA 6020A
Potassium	2.0	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:49	JMW	EPA 6020A



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

ANALYTICAL RESULTS

Sample: GA01700-17

Name: OM12

Matrix: Ground Water - Grab

Sampled: 01/10/23 15:15

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:49	JMW	EPA 6020A
Sodium	13	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:49	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:49	JMW	EPA 6020A
Lithium	< 0.020	mg/L		01/16/23 09:23	1	0.020	01/24/23 14:32	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA01700-18
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 01/10/23 13:56

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	900	mg/L		01/21/23 22:52	100	100	01/21/23 22:52	LAM	EPA 300.0 REV 2.1
Sulfate	640	mg/L		01/25/23 00:01	100	100	01/25/23 00:01	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.68	Feet		01/10/23 13:56	1		01/10/23 13:56	FIELD	Field*
Dissolved oxygen, Field	2.4	mg/L		01/10/23 13:56	1		01/10/23 13:56	FIELD	Field*
Oxidation Reduction Potential	51.0	mV		01/10/23 13:56	1	-500	01/10/23 13:56	FIELD	Field*
pH, Field Measured	6.72	pH Units		01/10/23 13:56	1		01/10/23 13:56	FIELD	Field*
Specific Conductance, Field Measured	4010	umhos/cm		01/10/23 13:56	1		01/10/23 13:56	FIELD	Field*
Temperature, Field Measured	54.1	°F		01/10/23 13:56	1		01/10/23 13:56	FIELD	Field*
Temperature, Field Measured	12.3	°C		01/10/23 13:56	1		01/10/23 13:56	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/10/23 13:56	1	0.00	01/10/23 13:56	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	200	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/31/23 13:38	1	0.250	01/31/23 13:38	TTH	SM 4500F C 1997
Solids - total dissolved solids (TDS)	2900	mg/L		01/11/23 09:12	1	26	01/11/23 10:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/16/23 09:23	5	3.0	01/18/23 09:53	JMW	EPA 6020A
Arsenic	5.9	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:53	JMW	EPA 6020A
Barium	61	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:53	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:53	JMW	EPA 6020A
Boron	45000	ug/L		01/16/23 09:23	100	200	01/18/23 12:53	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:53	JMW	EPA 6020A
Calcium	550	mg/L		01/19/23 08:31	100	4.0	01/20/23 13:50	JMW	EPA 6020A
Chromium	9.6	ug/L		01/16/23 09:23	5	4.0	01/18/23 09:53	JMW	EPA 6020A
Cobalt	5.0	ug/L		01/16/23 09:23	5	2.0	01/18/23 09:53	JMW	EPA 6020A
Lead	2.6	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:53	JMW	EPA 6020A
Magnesium	140	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:53	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/16/23 09:23	5	0.20	01/18/23 09:53	JMW	EPA 6020A
Molybdenum	90	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:53	JMW	EPA 6020A
Potassium	9.7	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:53	JMW	EPA 6020A



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

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ANALYTICAL RESULTS

Sample: GA01700-18

Name: OM22D

Matrix: Ground Water - Grab

Sampled: 01/10/23 13:56

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:53	JMW	EPA 6020A
Sodium	140	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:53	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:53	JMW	EPA 6020A
Lithium	0.047	mg/L		01/16/23 09:23	1	0.020	01/24/23 14:41	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA01700-19
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 01/10/23 11:36

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	550	mg/L		01/21/23 23:29	100	100	01/21/23 23:29	LAM	EPA 300.0 REV 2.1
Fluoride	0.566	mg/L		01/21/23 23:11	1	0.250	01/21/23 23:11	LAM	EPA 300.0 REV 2.1
Sulfate	710	mg/L		01/25/23 00:19	100	100	01/25/23 00:19	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	4.01	Feet		01/10/23 11:36	1		01/10/23 11:36	FIELD	Field*
Dissolved oxygen, Field	5.4	mg/L		01/10/23 11:36	1		01/10/23 11:36	FIELD	Field*
Oxidation Reduction Potential	80.0	mV		01/10/23 11:36	1	-500	01/10/23 11:36	FIELD	Field*
pH, Field Measured	6.52	pH Units		01/10/23 11:36	1		01/10/23 11:36	FIELD	Field*
Specific Conductance, Field Measured	3450	umhos/cm		01/10/23 11:36	1		01/10/23 11:36	FIELD	Field*
Temperature, Field Measured	11.6	°C		01/10/23 11:36	1		01/10/23 11:36	FIELD	Field*
Temperature, Field Measured	52.9	°F		01/10/23 11:36	1		01/10/23 11:36	FIELD	Field*
Turbidity, Field Measured	184	NTU		01/10/23 11:36	1	0.00	01/10/23 11:36	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	280	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Solids - total dissolved solids (TDS)	2500	mg/L		01/11/23 09:12	1	26	01/11/23 10:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/16/23 09:23	5	3.0	01/18/23 09:56	JMW	EPA 6020A
Arsenic	4.6	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:56	JMW	EPA 6020A
Barium	19	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:56	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:56	JMW	EPA 6020A
Boron	23000	ug/L		01/16/23 09:23	100	200	01/18/23 12:56	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:56	JMW	EPA 6020A
Calcium	410	mg/L		01/19/23 08:31	5	0.20	01/20/23 13:17	JMW	EPA 6020A
Chromium	< 4.0	ug/L		01/16/23 09:23	5	4.0	01/18/23 09:56	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		01/16/23 09:23	5	2.0	01/18/23 09:56	JMW	EPA 6020A
Lead	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:56	JMW	EPA 6020A
Magnesium	140	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:56	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/16/23 09:23	5	0.20	01/18/23 09:56	JMW	EPA 6020A
Molybdenum	5.1	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:56	JMW	EPA 6020A
Potassium	4.2	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:56	JMW	EPA 6020A



Pace Analytical Services, LLC

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ANALYTICAL RESULTS

Sample: GA01700-19

Name: OM24D

Matrix: Ground Water - Grab

Sampled: 01/10/23 11:36

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:56	JMW	EPA 6020A
Sodium	110	mg/L		01/16/23 09:23	5	0.10	01/18/23 09:56	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 09:56	JMW	EPA 6020A
Lithium	< 0.020	mg/L		01/16/23 09:23	1	0.020	01/24/23 14:43	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA01700-20
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 01/10/23 12:17

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	550	mg/L		01/21/23 09:47	100	100	01/21/23 09:47	LAM	EPA 300.0 REV 2.1
Sulfate	650	mg/L		01/21/23 09:47	100	100	01/21/23 09:47	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	57.98	Feet		01/10/23 12:17	1		01/10/23 12:17	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		01/10/23 12:17	1		01/10/23 12:17	FIELD	Field*
Oxidation Reduction Potential	49.0	mV		01/10/23 12:17	1	-500	01/10/23 12:17	FIELD	Field*
pH, Field Measured	6.65	pH Units		01/10/23 12:17	1		01/10/23 12:17	FIELD	Field*
Specific Conductance, Field Measured	3780	umhos/cm		01/10/23 12:17	1		01/10/23 12:17	FIELD	Field*
Temperature, Field Measured	12.7	°C		01/10/23 12:17	1		01/10/23 12:17	FIELD	Field*
Temperature, Field Measured	54.9	°F		01/10/23 12:17	1		01/10/23 12:17	FIELD	Field*
Turbidity, Field Measured	1000	NTU		01/10/23 12:17	1	0.00	01/10/23 12:17	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	310	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/27/23 13:32	1	0.250	01/27/23 13:32	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	2700	mg/L		01/11/23 09:12	1	26	01/11/23 10:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/16/23 09:23	5	3.0	01/18/23 10:00	JMW	EPA 6020A
Arsenic	3.1	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:00	JMW	EPA 6020A
Barium	42	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:00	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:00	JMW	EPA 6020A
Boron	21000	ug/L		01/16/23 09:23	100	200	01/18/23 13:00	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:00	JMW	EPA 6020A
Calcium	310	mg/L		01/19/23 08:31	5	0.20	01/20/23 13:20	JMW	EPA 6020A
Chromium	7.5	ug/L		01/16/23 09:23	5	4.0	01/18/23 10:00	JMW	EPA 6020A
Cobalt	6.5	ug/L		01/16/23 09:23	5	2.0	01/18/23 10:00	JMW	EPA 6020A
Lead	3.3	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:00	JMW	EPA 6020A
Magnesium	180	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:00	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/16/23 09:23	5	0.20	01/18/23 10:00	JMW	EPA 6020A
Molybdenum	1.7	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:00	JMW	EPA 6020A
Potassium	9.8	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:00	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA01700-20

Name: OM25S

Matrix: Ground Water - Grab

Sampled: 01/10/23 12:17

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:00	JMW	EPA 6020A
Sodium	100	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:00	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:00	JMW	EPA 6020A
Lithium	0.061	mg/L		01/16/23 09:23	1	0.020	01/24/23 14:45	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02056-01
Name: OM01
Matrix: Ground Water - Grab

Sampled: 01/11/23 11:05

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	31	mg/L		01/21/23 13:24	10	10	01/21/23 13:24	LAM	EPA 300.0 REV 2.1
Sulfate	1800	mg/L		01/31/23 17:39	500	500	01/31/23 17:39	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.76	Feet		01/11/23 11:05	1		01/11/23 11:05	FIELD	Field*
Dissolved oxygen, Field	1.9	mg/L		01/11/23 11:05	1		01/11/23 11:05	FIELD	Field*
Oxidation Reduction Potential	87.0	mV		01/11/23 11:05	1	-500	01/11/23 11:05	FIELD	Field*
pH, Field Measured	6.33	pH Units		01/11/23 11:05	1		01/11/23 11:05	FIELD	Field*
Specific Conductance, Field Measured	3680	umhos/cm		01/11/23 11:05	1		01/11/23 11:05	FIELD	Field*
Temperature, Field Measured	11.3	°C		01/11/23 11:05	1		01/11/23 11:05	FIELD	Field*
Temperature, Field Measured	52.3	°F		01/11/23 11:05	1		01/11/23 11:05	FIELD	Field*
Turbidity, Field Measured	56.8	NTU		01/11/23 11:05	1	0.00	01/11/23 11:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	350	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/27/23 13:34	1	0.250	01/27/23 13:34	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3500	mg/L		01/13/23 14:44	1	26	01/13/23 15:45	CPS	SM 2540C
Soluble Nutrients - PIA									
Ammonia, Dissolved	0.22	mg/L		01/26/23 14:43	1	0.10	01/26/23 14:43	TTH	EPA 350.1 REV2
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/16/23 09:23	5	3.0	01/18/23 10:04	JMW	EPA 6020A
Arsenic	2.8	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:04	JMW	EPA 6020A
Barium	26	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:04	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:04	JMW	EPA 6020A
Boron	560	ug/L		01/16/23 09:23	5	11	01/18/23 10:04	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:04	JMW	EPA 6020A
Calcium	610	mg/L		01/19/23 08:31	100	4.0	01/20/23 13:54	JMW	EPA 6020A
Chromium	< 4.0	ug/L		01/16/23 09:23	5	4.0	01/18/23 10:04	JMW	EPA 6020A
Cobalt	20	ug/L		01/16/23 09:23	5	2.0	01/18/23 10:04	JMW	EPA 6020A
Lead	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:04	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02056-01

Name: OM01

Matrix: Ground Water - Grab

Sampled: 01/11/23 11:05

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Magnesium	260	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:04	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/16/23 09:23	5	0.20	01/18/23 10:04	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:04	JMW	EPA 6020A
Potassium	1.2	mg/L	B	01/16/23 09:23	5	0.10	01/18/23 10:04	JMW	EPA 6020A
Selenium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:04	JMW	EPA 6020A
Sodium	29	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:04	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:04	JMW	EPA 6020A
Lithium	< 0.020	mg/L		01/16/23 09:23	1	0.020	01/24/23 14:47	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02056-02
Name: OR02
Matrix: Ground Water - Grab

Sampled: 01/11/23 12:28

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	210	mg/L		01/21/23 14:18	100	100	01/21/23 14:18	LAM	EPA 300.0 REV 2.1
Sulfate	280	mg/L		01/21/23 14:18	100	100	01/21/23 14:18	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	6.32	Feet		01/11/23 12:28	1		01/11/23 12:28	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		01/11/23 12:28	1		01/11/23 12:28	FIELD	Field*
Oxidation Reduction Potential	52.0	mV		01/11/23 12:28	1	-500	01/11/23 12:28	FIELD	Field*
pH, Field Measured	6.70	pH Units		01/11/23 12:28	1		01/11/23 12:28	FIELD	Field*
Specific Conductance, Field Measured	2140	umhos/cm		01/11/23 12:28	1		01/11/23 12:28	FIELD	Field*
Temperature, Field Measured	12.1	°C		01/11/23 12:28	1		01/11/23 12:28	FIELD	Field*
Temperature, Field Measured	53.8	°F		01/11/23 12:28	1		01/11/23 12:28	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/11/23 12:28	1	0.00	01/11/23 12:28	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	310	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/27/23 13:36	1	0.250	01/27/23 13:36	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1600	mg/L		01/13/23 10:22	1	26	01/13/23 14:25	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/16/23 09:23	5	3.0	01/18/23 10:07	JMW	EPA 6020A
Arsenic	12	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:07	JMW	EPA 6020A
Barium	72	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:07	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:07	JMW	EPA 6020A
Boron	3900	ug/L		01/16/23 09:23	5	11	01/18/23 10:07	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:07	JMW	EPA 6020A
Calcium	230	mg/L		01/19/23 08:31	5	0.20	01/20/23 13:28	JMW	EPA 6020A
Chromium	9.9	ug/L		01/16/23 09:23	5	4.0	01/18/23 10:07	JMW	EPA 6020A
Cobalt	7.7	ug/L		01/16/23 09:23	5	2.0	01/18/23 10:07	JMW	EPA 6020A
Lead	7.8	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:07	JMW	EPA 6020A
Magnesium	93	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:07	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/16/23 09:23	5	0.20	01/18/23 10:07	JMW	EPA 6020A
Molybdenum	4.7	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:07	JMW	EPA 6020A
Potassium	3.4	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:07	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02056-02

Name: OR02

Matrix: Ground Water - Grab

Sampled: 01/11/23 12:28

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:07	JMW	EPA 6020A
Sodium	88	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:07	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:07	JMW	EPA 6020A
Lithium	< 0.020	mg/L		01/16/23 09:23	1	0.020	01/24/23 14:49	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02056-03
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 01/11/23 14:00

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1200	mg/L		01/21/23 14:54	250	250	01/21/23 14:54	LAM	EPA 300.0 REV 2.1
Sulfate	600	mg/L		01/21/23 14:54	250	250	01/21/23 14:54	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	44.63	Feet		01/11/23 14:00	1		01/11/23 14:00	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		01/11/23 14:00	1		01/11/23 14:00	FIELD	Field*
Oxidation Reduction Potential	57.0	mV		01/11/23 14:00	1	-500	01/11/23 14:00	FIELD	Field*
pH, Field Measured	6.60	pH Units		01/11/23 14:00	1		01/11/23 14:00	FIELD	Field*
Specific Conductance, Field Measured	5310	umhos/cm		01/11/23 14:00	1		01/11/23 14:00	FIELD	Field*
Temperature, Field Measured	14.4	°C		01/11/23 14:00	1		01/11/23 14:00	FIELD	Field*
Temperature, Field Measured	58.0	°F		01/11/23 14:00	1		01/11/23 14:00	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/11/23 14:00	1	0.00	01/11/23 14:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	260	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/27/23 13:47	1	0.250	01/27/23 13:47	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	4300	mg/L		01/13/23 10:22	1	26	01/13/23 14:25	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/16/23 09:23	5	3.0	01/18/23 10:11	JMW	EPA 6020A
Arsenic	8.6	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:11	JMW	EPA 6020A
Barium	110	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:11	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:11	JMW	EPA 6020A
Boron	52000	ug/L		01/16/23 09:23	100	200	01/18/23 13:04	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:11	JMW	EPA 6020A
Calcium	590	mg/L		01/19/23 08:31	100	4.0	01/20/23 13:57	JMW	EPA 6020A
Chromium	29	ug/L		01/16/23 09:23	5	4.0	01/18/23 10:11	JMW	EPA 6020A
Cobalt	9.8	ug/L		01/16/23 09:23	5	2.0	01/18/23 10:11	JMW	EPA 6020A
Lead	8.3	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:11	JMW	EPA 6020A
Magnesium	270	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:11	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/16/23 09:23	5	0.20	01/18/23 10:11	JMW	EPA 6020A
Molybdenum	6.9	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:11	JMW	EPA 6020A
Potassium	13	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:11	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02056-03

Name: OR03D

Matrix: Ground Water - Grab

Sampled: 01/11/23 14:00

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:11	JMW	EPA 6020A
Sodium	160	mg/L		01/16/23 09:23	5	0.10	01/18/23 10:11	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 10:11	JMW	EPA 6020A
Lithium	0.059	mg/L		01/16/23 09:23	1	0.020	01/24/23 14:51	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02056-04
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 01/11/23 15:32

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1400	mg/L		01/21/23 15:31	250	250	01/21/23 15:31	LAM	EPA 300.0 REV 2.1
Sulfate	1100	mg/L		01/21/23 15:31	250	250	01/21/23 15:31	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.42	Feet		01/11/23 15:32	1		01/11/23 15:32	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		01/11/23 15:32	1		01/11/23 15:32	FIELD	Field*
Oxidation Reduction Potential	-8.00	mV		01/11/23 15:32	1	-500	01/11/23 15:32	FIELD	Field*
pH, Field Measured	6.59	pH Units		01/11/23 15:32	1		01/11/23 15:32	FIELD	Field*
Specific Conductance, Field Measured	6180	umhos/cm		01/11/23 15:32	1		01/11/23 15:32	FIELD	Field*
Temperature, Field Measured	13.7	°C		01/11/23 15:32	1		01/11/23 15:32	FIELD	Field*
Temperature, Field Measured	56.6	°F		01/11/23 15:32	1		01/11/23 15:32	FIELD	Field*
Turbidity, Field Measured	154	NTU		01/11/23 15:32	1	0.00	01/11/23 15:32	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	250	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/27/23 13:48	1	0.250	01/27/23 13:48	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	4900	mg/L		01/13/23 10:22	1	26	01/13/23 14:25	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/16/23 09:23	5	3.0	01/18/23 11:31	JMW	EPA 6020A
Arsenic	6.7	ug/L		01/16/23 09:23	5	1.0	01/18/23 11:31	JMW	EPA 6020A
Barium	75	ug/L		01/16/23 09:23	5	1.0	01/18/23 11:31	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 11:31	JMW	EPA 6020A
Boron	100000	ug/L		01/16/23 09:23	1000	2000	01/18/23 13:07	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 11:31	JMW	EPA 6020A
Calcium	760	mg/L		01/19/23 08:31	100	4.0	01/20/23 14:26	JMW	EPA 6020A
Chromium	12	ug/L		01/16/23 09:23	5	4.0	01/18/23 11:31	JMW	EPA 6020A
Cobalt	4.8	ug/L		01/16/23 09:23	5	2.0	01/18/23 11:31	JMW	EPA 6020A
Lead	5.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 11:31	JMW	EPA 6020A
Magnesium	270	mg/L		01/16/23 09:23	5	0.10	01/18/23 11:31	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/16/23 09:23	5	0.20	01/18/23 11:31	JMW	EPA 6020A
Molybdenum	5.7	ug/L		01/16/23 09:23	5	1.0	01/18/23 11:31	JMW	EPA 6020A
Potassium	13	mg/L		01/16/23 09:23	5	0.10	01/18/23 11:31	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02056-04

Name: OR04D

Matrix: Ground Water - Grab

Sampled: 01/11/23 15:32

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 11:31	JMW	EPA 6020A
Sodium	210	mg/L		01/16/23 09:23	5	0.10	01/18/23 11:31	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/16/23 09:23	5	1.0	01/18/23 11:31	JMW	EPA 6020A
Lithium	0.068	mg/L		01/16/23 09:23	1	0.020	01/24/23 14:53	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02056-05
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 01/11/23 12:43

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	390	mg/L		01/21/23 15:49	100	100	01/21/23 15:49	LAM	EPA 300.0 REV 2.1
Sulfate	450	mg/L		01/21/23 15:49	100	100	01/21/23 15:49	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.91	Feet		01/11/23 12:43	1		01/11/23 12:43	FIELD	Field*
Dissolved oxygen, Field	4.0	mg/L		01/11/23 12:43	1		01/11/23 12:43	FIELD	Field*
Oxidation Reduction Potential	-41.0	mV		01/11/23 12:43	1	-500	01/11/23 12:43	FIELD	Field*
pH, Field Measured	6.92	pH Units		01/11/23 12:43	1		01/11/23 12:43	FIELD	Field*
Specific Conductance, Field Measured	2890	umhos/cm		01/11/23 12:43	1		01/11/23 12:43	FIELD	Field*
Temperature, Field Measured	55.0	°F		01/11/23 12:43	1		01/11/23 12:43	FIELD	Field*
Temperature, Field Measured	12.8	°C		01/11/23 12:43	1		01/11/23 12:43	FIELD	Field*
Turbidity, Field Measured	506	NTU		01/11/23 12:43	1	0.00	01/11/23 12:43	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	300	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/27/23 13:50	1	0.250	01/27/23 13:50	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	2100	mg/L		01/13/23 10:22	1	26	01/13/23 14:25	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 08:50	5	3.0	01/19/23 12:47	JMW	EPA 6020A
Arsenic	21	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:47	JMW	EPA 6020A
Barium	100	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:47	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:47	JMW	EPA 6020A
Boron	27000	ug/L		01/17/23 08:50	100	200	01/19/23 14:31	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:47	JMW	EPA 6020A
Calcium	330	mg/L		01/17/23 08:50	5	0.20	01/19/23 12:47	JMW	EPA 6020A
Chromium	13	ug/L		01/17/23 08:50	5	4.0	01/19/23 12:47	JMW	EPA 6020A
Cobalt	8.2	ug/L		01/17/23 08:50	5	2.0	01/19/23 12:47	JMW	EPA 6020A
Lead	8.9	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:47	JMW	EPA 6020A
Magnesium	110	mg/L		01/17/23 08:50	5	0.10	01/19/23 12:47	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 08:50	5	0.20	01/19/23 12:47	JMW	EPA 6020A
Molybdenum	23	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:47	JMW	EPA 6020A
Potassium	3.0	mg/L		01/17/23 08:50	5	0.10	01/19/23 12:47	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02056-05

Name: OR06A

Matrix: Ground Water - Grab

Sampled: 01/11/23 12:43

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:47	JMW	EPA 6020A
Sodium	70	mg/L		01/17/23 08:50	5	0.10	01/19/23 12:47	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:47	JMW	EPA 6020A
Lithium	< 0.020	mg/L		01/17/23 08:50	1	0.020	01/24/23 14:15	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02056-06
Name: OM07
Matrix: Ground Water - Grab

Sampled: 01/11/23 13:59

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	9.4	mg/L		01/21/23 17:19	5	5.0	01/21/23 17:19	LAM	EPA 300.0 REV 2.1
Fluoride	0.270	mg/L		01/21/23 17:01	1	0.250	01/21/23 17:01	LAM	EPA 300.0 REV 2.1
Sulfate	170	mg/L		01/21/23 17:37	50	50	01/21/23 17:37	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.87	Feet		01/11/23 13:59	1		01/11/23 13:59	FIELD	Field*
Dissolved oxygen, Field	5.5	mg/L		01/11/23 13:59	1		01/11/23 13:59	FIELD	Field*
Oxidation Reduction Potential	-39.0	mV		01/11/23 13:59	1	-500	01/11/23 13:59	FIELD	Field*
pH, Field Measured	7.07	pH Units		01/11/23 13:59	1		01/11/23 13:59	FIELD	Field*
Specific Conductance, Field Measured	1200	umhos/cm		01/11/23 13:59	1		01/11/23 13:59	FIELD	Field*
Temperature, Field Measured	55.2	°F		01/11/23 13:59	1		01/11/23 13:59	FIELD	Field*
Temperature, Field Measured	12.9	°C		01/11/23 13:59	1		01/11/23 13:59	FIELD	Field*
Turbidity, Field Measured	89.7	NTU		01/11/23 13:59	1	0.00	01/11/23 13:59	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	320	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Solids - total dissolved solids (TDS)	820	mg/L	M	01/13/23 10:22	1	26	01/13/23 14:25	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 08:50	5	3.0	01/19/23 12:50	JMW	EPA 6020A
Arsenic	2.4	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:50	JMW	EPA 6020A
Barium	55	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:50	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:50	JMW	EPA 6020A
Boron	670	ug/L		01/17/23 08:50	5	10	01/19/23 12:50	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:50	JMW	EPA 6020A
Calcium	130	mg/L		01/17/23 08:50	5	0.20	01/19/23 12:50	JMW	EPA 6020A
Chromium	< 4.0	ug/L		01/17/23 08:50	5	4.0	01/19/23 12:50	JMW	EPA 6020A
Cobalt	2.9	ug/L		01/17/23 08:50	5	2.0	01/19/23 12:50	JMW	EPA 6020A
Lead	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:50	JMW	EPA 6020A
Magnesium	68	mg/L		01/17/23 08:50	5	0.10	01/19/23 12:50	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 08:50	5	0.20	01/19/23 12:50	JMW	EPA 6020A
Molybdenum	1.2	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:50	JMW	EPA 6020A
Potassium	1.7	mg/L	Bb	01/17/23 08:50	5	0.10	01/19/23 12:50	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02056-06

Name: OM07

Matrix: Ground Water - Grab

Sampled: 01/11/23 13:59

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:50	JMW	EPA 6020A
Sodium	58	mg/L		01/17/23 08:50	5	0.10	01/19/23 12:50	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 12:50	JMW	EPA 6020A
Lithium	< 0.020	mg/L		01/17/23 08:50	1	0.020	01/24/23 14:17	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-14
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 01/12/23 13:25

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	16	mg/L		01/26/23 20:19	10	10	01/26/23 20:19	LAM	EPA 300.0 REV 2.1
Sulfate	120	mg/L		01/26/23 20:37	100	100	01/26/23 20:37	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.91	Feet		01/12/23 13:25	1		01/12/23 13:25	FIELD	Field*
Dissolved oxygen, Field	3.9	mg/L		01/12/23 13:25	1		01/12/23 13:25	FIELD	Field*
Oxidation Reduction Potential	28.0	mV		01/12/23 13:25	1	-500	01/12/23 13:25	FIELD	Field*
pH, Field Measured	7.01	pH Units		01/12/23 13:25	1		01/12/23 13:25	FIELD	Field*
Specific Conductance, Field Measured	1190	umhos/cm		01/12/23 13:25	1		01/12/23 13:25	FIELD	Field*
Temperature, Field Measured	6.6	°C		01/12/23 13:25	1		01/12/23 13:25	FIELD	Field*
Temperature, Field Measured	43.9	°F		01/12/23 13:25	1		01/12/23 13:25	FIELD	Field*
Turbidity, Field Measured	70.9	NTU		01/12/23 13:25	1	0.00	01/12/23 13:25	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	310	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/27/23 14:36	1	0.250	01/27/23 14:36	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	760	mg/L		01/18/23 11:20	1	26	01/18/23 12:23	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 08:50	5	3.0	01/19/23 14:06	JMW	EPA 6020A
Arsenic	9.1	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:06	JMW	EPA 6020A
Barium	83	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:06	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:06	JMW	EPA 6020A
Boron	81	ug/L		01/17/23 08:50	5	10	01/19/23 14:06	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:06	JMW	EPA 6020A
Calcium	150	mg/L		01/17/23 08:50	5	0.20	01/19/23 14:06	JMW	EPA 6020A
Chromium	7.7	ug/L		01/17/23 08:50	5	4.0	01/19/23 14:06	JMW	EPA 6020A
Cobalt	8.4	ug/L		01/17/23 08:50	5	2.0	01/19/23 14:06	JMW	EPA 6020A
Lead	3.9	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:06	JMW	EPA 6020A
Magnesium	75	mg/L		01/17/23 08:50	5	0.10	01/19/23 14:06	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 08:50	5	0.20	01/19/23 14:06	JMW	EPA 6020A
Molybdenum	2.8	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:06	JMW	EPA 6020A
Potassium	1.3	mg/L	Bb	01/17/23 08:50	5	0.10	01/19/23 14:06	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02365-14

Name: OM04S

Matrix: Ground Water - Grab

Sampled: 01/12/23 13:25

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:06	JMW	EPA 6020A
Sodium	14	mg/L		01/17/23 08:50	5	0.10	01/19/23 14:06	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:06	JMW	EPA 6020A
Lithium	< 0.020	mg/L		01/17/23 08:50	1	0.020	01/24/23 14:19	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-15
Name: OM16
Matrix: Ground Water - Grab

Sampled: 01/12/23 11:19

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	8.1	mg/L		01/26/23 20:55	1	1.0	01/26/23 20:55	LAM	EPA 300.0 REV 2.1
Sulfate	2000	mg/L		01/27/23 10:38	250	250	01/27/23 10:38	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.79	Feet		01/12/23 11:19	1		01/12/23 11:19	FIELD	Field*
Dissolved oxygen, Field	2.0	mg/L		01/12/23 11:19	1		01/12/23 11:19	FIELD	Field*
Oxidation Reduction Potential	44.0	mV		01/12/23 11:19	1	-500	01/12/23 11:19	FIELD	Field*
pH, Field Measured	6.53	pH Units		01/12/23 11:19	1		01/12/23 11:19	FIELD	Field*
Specific Conductance, Field Measured	3980	umhos/cm		01/12/23 11:19	1		01/12/23 11:19	FIELD	Field*
Temperature, Field Measured	9.1	°C		01/12/23 11:19	1		01/12/23 11:19	FIELD	Field*
Temperature, Field Measured	48.4	°F		01/12/23 11:19	1		01/12/23 11:19	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/12/23 11:19	1	0.00	01/12/23 11:19	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	420	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/27/23 14:04	1	0.250	01/27/23 14:04	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3400	mg/L		01/18/23 11:20	1	26	01/18/23 12:23	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 08:50	5	3.0	01/19/23 14:24	JMW	EPA 6020A
Arsenic	84	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:24	JMW	EPA 6020A
Barium	350	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:24	JMW	EPA 6020A
Beryllium	4.6	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:24	JMW	EPA 6020A
Boron	92	ug/L		01/17/23 08:50	5	10	01/19/23 14:24	JMW	EPA 6020A
Cadmium	4.4	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:24	JMW	EPA 6020A
Calcium	680	mg/L		01/17/23 08:50	100	4.0	01/19/23 14:53	JMW	EPA 6020A
Chromium	140	ug/L		01/17/23 08:50	5	4.0	01/19/23 14:24	JMW	EPA 6020A
Cobalt	79	ug/L		01/17/23 08:50	5	2.0	01/19/23 14:24	JMW	EPA 6020A
Lead	71	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:24	JMW	EPA 6020A
Magnesium	330	mg/L		01/17/23 08:50	5	0.10	01/19/23 14:24	JMW	EPA 6020A
Mercury	0.24	ug/L		01/17/23 08:50	5	0.20	01/19/23 14:24	JMW	EPA 6020A
Molybdenum	7.2	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:24	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02365-15

Name: OM16

Matrix: Ground Water - Grab

Sampled: 01/12/23 11:19

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	16	mg/L		01/17/23 08:50	5	0.10	01/19/23 14:24	JMW	EPA 6020A
Selenium	4.4	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:24	JMW	EPA 6020A
Sodium	24	mg/L		01/17/23 08:50	5	0.10	01/19/23 14:24	JMW	EPA 6020A
Thallium	1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:24	JMW	EPA 6020A
Lithium	0.14	mg/L		01/17/23 08:50	1	0.020	01/24/23 14:21	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-16
Name: OM17
Matrix: Ground Water - Grab

Sampled: 01/12/23 10:09

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.8	mg/L		01/26/23 21:49	1	1.0	01/26/23 21:49	LAM	EPA 300.0 REV 2.1
Sulfate	370	mg/L		01/26/23 23:02	100	100	01/26/23 23:02	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.04	Feet		01/12/23 10:09	1		01/12/23 10:09	FIELD	Field*
Dissolved oxygen, Field	2.4	mg/L		01/12/23 10:09	1		01/12/23 10:09	FIELD	Field*
Oxidation Reduction Potential	42.0	mV		01/12/23 10:09	1	-500	01/12/23 10:09	FIELD	Field*
pH, Field Measured	6.79	pH Units		01/12/23 10:09	1		01/12/23 10:09	FIELD	Field*
Specific Conductance, Field Measured	2060	umhos/cm		01/12/23 10:09	1		01/12/23 10:09	FIELD	Field*
Temperature, Field Measured	51.8	°F		01/12/23 10:09	1		01/12/23 10:09	FIELD	Field*
Temperature, Field Measured	11.0	°C		01/12/23 10:09	1		01/12/23 10:09	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/12/23 10:09	1	0.00	01/12/23 10:09	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	220	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	< 0.250	mg/L		01/27/23 14:14	1	0.250	01/27/23 14:14	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	940	mg/L		01/18/23 11:20	1	26	01/18/23 12:23	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 08:50	5	3.0	01/19/23 14:28	JMW	EPA 6020A
Arsenic	7.6	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:28	JMW	EPA 6020A
Barium	150	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:28	JMW	EPA 6020A
Beryllium	1.2	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:28	JMW	EPA 6020A
Boron	180	ug/L		01/17/23 08:50	5	10	01/19/23 14:28	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:28	JMW	EPA 6020A
Calcium	220	mg/L		01/17/23 08:50	5	0.20	01/19/23 14:28	JMW	EPA 6020A
Chromium	39	ug/L		01/17/23 08:50	5	4.0	01/19/23 14:28	JMW	EPA 6020A
Cobalt	14	ug/L		01/17/23 08:50	5	2.0	01/19/23 14:28	JMW	EPA 6020A
Lead	17	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:28	JMW	EPA 6020A
Magnesium	86	mg/L		01/17/23 08:50	5	0.10	01/19/23 14:28	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 08:50	5	0.20	01/19/23 14:28	JMW	EPA 6020A
Molybdenum	2.5	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:28	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02365-16

Name: OM17

Matrix: Ground Water - Grab

Sampled: 01/12/23 10:09

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	11	mg/L		01/17/23 08:50	5	0.10	01/19/23 14:28	JMW	EPA 6020A
Selenium	2.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:28	JMW	EPA 6020A
Sodium	4.7	mg/L		01/17/23 08:50	5	0.10	01/19/23 14:28	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 08:50	5	1.0	01/19/23 14:28	JMW	EPA 6020A
Lithium	0.045	mg/L		01/17/23 08:50	1	0.020	01/24/23 14:23	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-17
Name: OM21
Matrix: Ground Water - Grab

Sampled: 01/12/23 15:36

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	220	mg/L		01/26/23 23:58	100	100	01/26/23 23:58	LAM	EPA 300.0 REV 2.1
Sulfate	1000	mg/L		01/27/23 10:56	250	250	01/27/23 10:56	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.86	Feet		01/12/23 15:36	1		01/12/23 15:36	FIELD	Field*
Dissolved oxygen, Field	1.9	mg/L		01/12/23 15:36	1		01/12/23 15:36	FIELD	Field*
Oxidation Reduction Potential	11.0	mV		01/12/23 15:36	1	-500	01/12/23 15:36	FIELD	Field*
pH, Field Measured	6.65	pH Units		01/12/23 15:36	1		01/12/23 15:36	FIELD	Field*
Specific Conductance, Field Measured	3620	umhos/cm		01/12/23 15:36	1		01/12/23 15:36	FIELD	Field*
Temperature, Field Measured	10.4	°C		01/12/23 15:36	1		01/12/23 15:36	FIELD	Field*
Temperature, Field Measured	50.7	°F		01/12/23 15:36	1		01/12/23 15:36	FIELD	Field*
Turbidity, Field Measured	17.7	NTU		01/12/23 15:36	1	0.00	01/12/23 15:36	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	400	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	0.273	mg/L		01/27/23 14:16	1	0.250	01/27/23 14:16	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	2600	mg/L		01/18/23 11:20	1	26	01/18/23 12:23	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 09:05	5	3.0	01/18/23 13:11	JMW	EPA 6020A
Arsenic	1.5	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:11	JMW	EPA 6020A
Barium	16	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:11	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:11	JMW	EPA 6020A
Boron	7600	ug/L		01/17/23 09:05	5	10	01/18/23 13:11	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:11	JMW	EPA 6020A
Calcium	300	mg/L		01/17/23 09:05	5	0.20	01/18/23 13:11	JMW	EPA 6020A
Chromium	< 4.0	ug/L		01/17/23 09:05	5	4.0	01/18/23 13:11	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		01/17/23 09:05	5	2.0	01/18/23 13:11	JMW	EPA 6020A
Lead	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:11	JMW	EPA 6020A
Magnesium	140	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:11	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 09:05	5	0.20	01/18/23 13:11	JMW	EPA 6020A
Molybdenum	1.6	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:11	JMW	EPA 6020A
Potassium	10	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:11	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02365-17

Name: OM21

Matrix: Ground Water - Grab

Sampled: 01/12/23 15:36

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:11	JMW	EPA 6020A
Sodium	290	mg/L	Q4	01/17/23 09:05	5	0.10	01/18/23 13:11	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:11	JMW	EPA 6020A
Lithium	0.040	mg/L		01/17/23 09:05	1	0.020	01/19/23 14:57	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-18

Name: OM23D

Matrix: Ground Water - Grab

Sampled: 01/12/23 13:08

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	25	mg/L		01/27/23 00:36	10	10	01/27/23 00:36	LAM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		01/27/23 00:17	1	0.250	01/27/23 00:17	LAM	EPA 300.0 REV 2.1
Sulfate	380	mg/L		01/27/23 00:55	100	100	01/27/23 00:55	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	39.22	Feet		01/12/23 13:08	1		01/12/23 13:08	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		01/12/23 13:08	1		01/12/23 13:08	FIELD	Field*
Oxidation Reduction Potential	24.0	mV		01/12/23 13:08	1	-500	01/12/23 13:08	FIELD	Field*
pH, Field Measured	6.83	pH Units		01/12/23 13:08	1		01/12/23 13:08	FIELD	Field*
Specific Conductance, Field Measured	1850	umhos/cm		01/12/23 13:08	1		01/12/23 13:08	FIELD	Field*
Temperature, Field Measured	10.5	°C		01/12/23 13:08	1		01/12/23 13:08	FIELD	Field*
Temperature, Field Measured	50.8	°F		01/12/23 13:08	1		01/12/23 13:08	FIELD	Field*
Turbidity, Field Measured	104	NTU		01/12/23 13:08	1	0.00	01/12/23 13:08	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	350	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1200	mg/L		01/18/23 11:20	1	26	01/18/23 12:23	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 09:05	5	3.0	01/18/23 13:14	JMW	EPA 6020A
Arsenic	2.7	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:14	JMW	EPA 6020A
Barium	28	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:14	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:14	JMW	EPA 6020A
Boron	1800	ug/L		01/17/23 09:05	5	10	01/18/23 13:14	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:14	JMW	EPA 6020A
Calcium	170	mg/L		01/17/23 09:05	5	0.20	01/18/23 13:14	JMW	EPA 6020A
Chromium	< 4.0	ug/L		01/17/23 09:05	5	4.0	01/18/23 13:14	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		01/17/23 09:05	5	2.0	01/18/23 13:14	JMW	EPA 6020A
Lead	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:14	JMW	EPA 6020A
Magnesium	96	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:14	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 09:05	5	0.20	01/18/23 13:14	JMW	EPA 6020A
Molybdenum	2.3	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:14	JMW	EPA 6020A
Potassium	5.3	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:14	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02365-18

Name: OM23D

Matrix: Ground Water - Grab

Sampled: 01/12/23 13:08

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:14	JMW	EPA 6020A
Sodium	100	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:14	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:14	JMW	EPA 6020A
Lithium	0.037	mg/L		01/17/23 09:05	1	0.020	01/19/23 15:03	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-19
Name: OR11
Matrix: Ground Water - Grab

Sampled: 01/12/23 14:25

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	88	mg/L		01/27/23 01:33	10	10	01/27/23 01:33	LAM	EPA 300.0 REV 2.1
Sulfate	170	mg/L		01/27/23 01:52	100	100	01/27/23 01:52	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	32.61	Feet		01/12/23 14:25	1		01/12/23 14:25	FIELD	Field*
Dissolved oxygen, Field	6.1	mg/L		01/12/23 14:25	1		01/12/23 14:25	FIELD	Field*
Oxidation Reduction Potential	-9.00	mV		01/12/23 14:25	1	-500	01/12/23 14:25	FIELD	Field*
pH, Field Measured	7.19	pH Units		01/12/23 14:25	1		01/12/23 14:25	FIELD	Field*
Specific Conductance, Field Measured	1270	umhos/cm		01/12/23 14:25	1		01/12/23 14:25	FIELD	Field*
Temperature, Field Measured	49.6	°F		01/12/23 14:25	1		01/12/23 14:25	FIELD	Field*
Temperature, Field Measured	9.8	°C		01/12/23 14:25	1		01/12/23 14:25	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/12/23 14:25	1	0.00	01/12/23 14:25	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	280	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	0.293	mg/L		01/27/23 14:18	1	0.250	01/27/23 14:18	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	820	mg/L		01/18/23 12:31	1	26	01/18/23 14:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 09:05	5	3.0	01/18/23 13:18	JMW	EPA 6020A
Arsenic	63	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:18	JMW	EPA 6020A
Barium	1100	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:18	JMW	EPA 6020A
Beryllium	4.6	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:18	JMW	EPA 6020A
Boron	9200	ug/L		01/17/23 09:05	5	10	01/18/23 13:18	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:18	JMW	EPA 6020A
Calcium	230	mg/L		01/17/23 09:05	5	0.20	01/18/23 13:18	JMW	EPA 6020A
Chromium	48	ug/L		01/17/23 09:05	5	4.0	01/18/23 13:18	JMW	EPA 6020A
Cobalt	30	ug/L		01/17/23 09:05	5	2.0	01/18/23 13:18	JMW	EPA 6020A
Lead	100	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:18	JMW	EPA 6020A
Magnesium	98	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:18	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 09:05	5	0.20	01/18/23 13:18	JMW	EPA 6020A
Molybdenum	14	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:18	JMW	EPA 6020A
Potassium	12	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:18	JMW	EPA 6020A



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

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ANALYTICAL RESULTS

Sample: GA02365-19

Name: OR11

Matrix: Ground Water - Grab

Sampled: 01/12/23 14:25

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	4.1	ug/L		01/17/23 09:05	5	1.0	01/20/23 14:01	JMW	EPA 6020A
Sodium	33	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:18	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:18	JMW	EPA 6020A
Lithium	0.063	mg/L		01/17/23 09:05	1	0.020	01/19/23 15:05	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-20
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 01/12/23 10:29

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	47	mg/L		01/27/23 03:07	10	10	01/27/23 03:07	LAM	EPA 300.0 REV 2.1
Sulfate	290	mg/L		01/27/23 03:26	100	100	01/27/23 03:26	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.6	Feet		01/12/23 10:29	1		01/12/23 10:29	FIELD	Field*
Dissolved oxygen, Field	4.4	mg/L		01/12/23 10:29	1		01/12/23 10:29	FIELD	Field*
Oxidation Reduction Potential	219	mV		01/12/23 10:29	1	-500	01/12/23 10:29	FIELD	Field*
pH, Field Measured	6.67	pH Units		01/12/23 10:29	1		01/12/23 10:29	FIELD	Field*
Specific Conductance, Field Measured	1880	umhos/cm		01/12/23 10:29	1		01/12/23 10:29	FIELD	Field*
Temperature, Field Measured	10.7	°C		01/12/23 10:29	1		01/12/23 10:29	FIELD	Field*
Temperature, Field Measured	51.3	°F		01/12/23 10:29	1		01/12/23 10:29	FIELD	Field*
Turbidity, Field Measured	139	NTU		01/12/23 10:29	1	0.00	01/12/23 10:29	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	410	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	0.296	mg/L		01/27/23 14:20	1	0.250	01/27/23 14:20	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1200	mg/L		01/18/23 12:31	1	26	01/18/23 14:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 09:05	5	3.0	01/18/23 13:21	JMW	EPA 6020A
Arsenic	4.1	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:21	JMW	EPA 6020A
Barium	34	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:21	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:21	JMW	EPA 6020A
Boron	1800	ug/L		01/17/23 09:05	5	10	01/18/23 13:21	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:21	JMW	EPA 6020A
Calcium	120	mg/L		01/17/23 09:05	5	0.20	01/18/23 13:21	JMW	EPA 6020A
Chromium	< 4.0	ug/L		01/17/23 09:05	5	4.0	01/18/23 13:21	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		01/17/23 09:05	5	2.0	01/18/23 13:21	JMW	EPA 6020A
Lead	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:21	JMW	EPA 6020A
Magnesium	59	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:21	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 09:05	5	0.20	01/18/23 13:21	JMW	EPA 6020A
Molybdenum	7.6	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:21	JMW	EPA 6020A
Potassium	4.6	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:21	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02365-20

Name: OR13D

Matrix: Ground Water - Grab

Sampled: 01/12/23 10:29

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:21	JMW	EPA 6020A
Sodium	220	mg/L		01/17/23 09:05	5	0.10	01/18/23 13:21	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 13:21	JMW	EPA 6020A
Lithium	0.026	mg/L		01/17/23 09:05	1	0.020	01/19/23 15:08	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-21
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 01/12/23 11:21

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	67	mg/L		01/27/23 04:03	10	10	01/27/23 04:03	LAM	EPA 300.0 REV 2.1
Sulfate	670	mg/L		01/27/23 04:22	100	100	01/27/23 04:22	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.47	Feet		01/12/23 11:21	1		01/12/23 11:21	FIELD	Field*
Dissolved oxygen, Field	3.7	mg/L		01/12/23 11:21	1		01/12/23 11:21	FIELD	Field*
Oxidation Reduction Potential	-43.0	mV		01/12/23 11:21	1	-500	01/12/23 11:21	FIELD	Field*
pH, Field Measured	6.83	pH Units		01/12/23 11:21	1		01/12/23 11:21	FIELD	Field*
Specific Conductance, Field Measured	2270	umhos/cm		01/12/23 11:21	1		01/12/23 11:21	FIELD	Field*
Temperature, Field Measured	10.4	°C		01/12/23 11:21	1		01/12/23 11:21	FIELD	Field*
Temperature, Field Measured	50.7	°F		01/12/23 11:21	1		01/12/23 11:21	FIELD	Field*
Turbidity, Field Measured	564	NTU		01/12/23 11:21	1	0.00	01/12/23 11:21	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	350	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	0.277	mg/L		01/27/23 14:22	1	0.250	01/27/23 14:22	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1700	mg/L		01/18/23 12:31	1	26	01/18/23 14:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 09:05	5	3.0	01/18/23 14:06	JMW	EPA 6020A
Arsenic	130	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:06	JMW	EPA 6020A
Barium	100	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:06	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:06	JMW	EPA 6020A
Boron	3800	ug/L		01/17/23 09:05	5	10	01/19/23 10:00	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:06	JMW	EPA 6020A
Calcium	290	mg/L		01/17/23 09:05	5	0.20	01/18/23 14:06	JMW	EPA 6020A
Chromium	13	ug/L		01/17/23 09:05	5	4.0	01/18/23 14:06	JMW	EPA 6020A
Cobalt	5.4	ug/L		01/17/23 09:05	5	2.0	01/18/23 14:06	JMW	EPA 6020A
Lead	19	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:06	JMW	EPA 6020A
Magnesium	120	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:06	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 09:05	5	0.20	01/18/23 14:06	JMW	EPA 6020A
Molybdenum	10	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:06	JMW	EPA 6020A
Potassium	4.7	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:06	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02365-21

Name: OR13S

Matrix: Ground Water - Grab

Sampled: 01/12/23 11:21

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.1	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:06	JMW	EPA 6020A
Sodium	81	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:06	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:06	JMW	EPA 6020A
Lithium	0.027	mg/L		01/17/23 09:05	1	0.020	01/19/23 15:15	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-22

Name: OR14D

Matrix: Ground Water - Grab

Sampled: 01/12/23 12:20

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	350	mg/L		01/27/23 05:19	100	100	01/27/23 05:19	LAM	EPA 300.0 REV 2.1
Sulfate	800	mg/L		01/27/23 05:19	100	100	01/27/23 05:19	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.36	Feet		01/12/23 12:20	1		01/12/23 12:20	FIELD	Field*
Dissolved oxygen, Field	3.9	mg/L		01/12/23 12:20	1		01/12/23 12:20	FIELD	Field*
Oxidation Reduction Potential	6.00	mV		01/12/23 12:20	1	-500	01/12/23 12:20	FIELD	Field*
pH, Field Measured	6.81	pH Units		01/12/23 12:20	1		01/12/23 12:20	FIELD	Field*
Specific Conductance, Field Measured	2960	umhos/cm		01/12/23 12:20	1		01/12/23 12:20	FIELD	Field*
Temperature, Field Measured	10.2	°C		01/12/23 12:20	1		01/12/23 12:20	FIELD	Field*
Temperature, Field Measured	50.3	°F		01/12/23 12:20	1		01/12/23 12:20	FIELD	Field*
Turbidity, Field Measured	287	NTU		01/12/23 12:20	1	0.00	01/12/23 12:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	220	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	0.269	mg/L		01/27/23 14:24	1	0.250	01/27/23 14:24	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	2300	mg/L		01/18/23 12:31	1	26	01/18/23 14:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 09:05	5	3.0	01/18/23 14:10	JMW	EPA 6020A
Arsenic	4.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:10	JMW	EPA 6020A
Barium	32	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:10	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:10	JMW	EPA 6020A
Boron	21000	ug/L		01/17/23 09:05	100	200	01/19/23 09:18	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:10	JMW	EPA 6020A
Calcium	440	mg/L		01/17/23 09:05	5	0.20	01/18/23 14:10	JMW	EPA 6020A
Chromium	< 4.0	ug/L		01/17/23 09:05	5	4.0	01/18/23 14:10	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		01/17/23 09:05	5	2.0	01/18/23 14:10	JMW	EPA 6020A
Lead	3.4	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:10	JMW	EPA 6020A
Magnesium	130	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:10	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 09:05	5	0.20	01/18/23 14:10	JMW	EPA 6020A
Molybdenum	6.2	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:10	JMW	EPA 6020A
Potassium	4.9	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:10	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GA02365-22

Name: OR14D

Matrix: Ground Water - Grab

Sampled: 01/12/23 12:20

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:10	JMW	EPA 6020A
Sodium	48	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:10	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:10	JMW	EPA 6020A
Lithium	0.024	mg/L		01/17/23 09:05	1	0.020	01/19/23 15:17	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-23

Name: OR19

Matrix: Ground Water - Grab

Sampled: 01/12/23 14:34

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	160	mg/L		01/27/23 11:40	25	25	01/27/23 11:40	CRD	EPA 300.0 REV 2.1
Sulfate	810	mg/L		01/27/23 11:58	250	250	01/27/23 11:58	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26.37	Feet		01/12/23 14:34	1		01/12/23 14:34	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		01/12/23 14:34	1		01/12/23 14:34	FIELD	Field*
Oxidation Reduction Potential	-10.0	mV		01/12/23 14:34	1	-500	01/12/23 14:34	FIELD	Field*
pH, Field Measured	6.78	pH Units		01/12/23 14:34	1		01/12/23 14:34	FIELD	Field*
Specific Conductance, Field Measured	2950	umhos/cm		01/12/23 14:34	1		01/12/23 14:34	FIELD	Field*
Temperature, Field Measured	11.0	°C		01/12/23 14:34	1		01/12/23 14:34	FIELD	Field*
Temperature, Field Measured	51.8	°F		01/12/23 14:34	1		01/12/23 14:34	FIELD	Field*
Turbidity, Field Measured	140	NTU		01/12/23 14:34	1	0.00	01/12/23 14:34	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	360	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	0.395	mg/L		01/27/23 14:26	1	0.250	01/27/23 14:26	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	2200	mg/L		01/18/23 12:31	1	26	01/18/23 14:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 09:05	5	3.0	01/18/23 14:13	JMW	EPA 6020A
Arsenic	2.4	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:13	JMW	EPA 6020A
Barium	23	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:13	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:13	JMW	EPA 6020A
Boron	16000	ug/L		01/17/23 09:05	100	200	01/19/23 09:22	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:13	JMW	EPA 6020A
Calcium	310	mg/L		01/17/23 09:05	5	0.20	01/18/23 14:13	JMW	EPA 6020A
Chromium	< 4.0	ug/L		01/17/23 09:05	5	4.0	01/18/23 14:13	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		01/17/23 09:05	5	2.0	01/18/23 14:13	JMW	EPA 6020A
Lead	1.2	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:13	JMW	EPA 6020A
Magnesium	140	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:13	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 09:05	5	0.20	01/18/23 14:13	JMW	EPA 6020A
Molybdenum	3.9	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:13	JMW	EPA 6020A
Potassium	5.1	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:13	JMW	EPA 6020A



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

ANALYTICAL RESULTS

Sample: GA02365-23

Name: OR19

Matrix: Ground Water - Grab

Sampled: 01/12/23 14:34

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:13	JMW	EPA 6020A
Sodium	150	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:13	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:13	JMW	EPA 6020A
Lithium	0.022	mg/L		01/17/23 09:05	1	0.020	01/19/23 15:19	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GA02365-24
Name: OR20
Matrix: Ground Water - Grab

Sampled: 01/12/23 14:55

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	340	mg/L		01/27/23 12:34	100	100	01/27/23 12:34	CRD	EPA 300.0 REV 2.1
Sulfate	380	mg/L		01/27/23 12:34	100	100	01/27/23 12:34	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.52	Feet		01/12/23 14:55	1		01/12/23 14:55	FIELD	Field*
Dissolved oxygen, Field	3.1	mg/L		01/12/23 14:55	1		01/12/23 14:55	FIELD	Field*
Oxidation Reduction Potential	-27.0	mV		01/12/23 14:55	1	-500	01/12/23 14:55	FIELD	Field*
pH, Field Measured	6.97	pH Units		01/12/23 14:55	1		01/12/23 14:55	FIELD	Field*
Specific Conductance, Field Measured	2640	umhos/cm		01/12/23 14:55	1		01/12/23 14:55	FIELD	Field*
Temperature, Field Measured	50.4	°F		01/12/23 14:55	1		01/12/23 14:55	FIELD	Field*
Temperature, Field Measured	10.2	°C		01/12/23 14:55	1		01/12/23 14:55	FIELD	Field*
Turbidity, Field Measured	401	NTU		01/12/23 14:55	1	0.00	01/12/23 14:55	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	260	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Fluoride	0.499	mg/L		01/27/23 14:28	1	0.250	01/27/23 14:28	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	1700	mg/L		01/18/23 12:31	1	26	01/18/23 14:36	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/17/23 09:05	5	3.0	01/18/23 14:17	JMW	EPA 6020A
Arsenic	8.7	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:17	JMW	EPA 6020A
Barium	41	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:17	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:17	JMW	EPA 6020A
Boron	35000	ug/L		01/17/23 09:05	100	200	01/19/23 11:48	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:17	JMW	EPA 6020A
Calcium	250	mg/L		01/17/23 09:05	5	0.20	01/18/23 14:17	JMW	EPA 6020A
Chromium	7.7	ug/L		01/17/23 09:05	5	4.0	01/18/23 14:17	JMW	EPA 6020A
Cobalt	2.8	ug/L		01/17/23 09:05	5	2.0	01/18/23 14:17	JMW	EPA 6020A
Lead	4.2	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:17	JMW	EPA 6020A
Magnesium	100	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:17	JMW	EPA 6020A
Mercury	< 0.20	ug/L		01/17/23 09:05	5	0.20	01/18/23 14:17	JMW	EPA 6020A
Molybdenum	38	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:17	JMW	EPA 6020A
Potassium	8.7	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:17	JMW	EPA 6020A



Pace Analytical Services, LLC

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ANALYTICAL RESULTS

Sample: GA02365-24

Name: OR20

Matrix: Ground Water - Grab

Sampled: 01/12/23 14:55

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:17	JMW	EPA 6020A
Sodium	160	mg/L		01/17/23 09:05	5	0.10	01/18/23 14:17	JMW	EPA 6020A
Thallium	< 1.0	ug/L		01/17/23 09:05	5	1.0	01/18/23 14:17	JMW	EPA 6020A
Lithium	0.044	mg/L		01/17/23 09:05	1	0.020	01/19/23 15:21	TJJ	EPA 6010B



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B322844 - No Prep - SM 2540C</u>									
Blank (B322844-BLK1)				Prepared & Analyzed: 01/11/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B322844-BS1)				Prepared & Analyzed: 01/11/23					
Solids - total dissolved solids (TDS)	953	mg/L		1000		95	84.9-109		
Solids - total dissolved solids (TDS)	953	mg/L		1000		95	84.9-109		
Duplicate (B322844-DUP2)				Sample: GA01700-08 Prepared & Analyzed: 01/11/23					
Solids - total dissolved solids (TDS)	2080	mg/L			2130			2	5
Solids - total dissolved solids (TDS)	2080	mg/L			2130			2	5
<u>Batch B323102 - No Prep - SM 2540C</u>									
Blank (B323102-BLK1)				Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B323102-BS1)				Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	990	mg/L		1000		99	84.9-109		
Duplicate (B323102-DUP1)				Sample: GA02056-03 Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	4300	mg/L			4340			0.9	5
Duplicate (B323102-DUP2)				Sample: GA02056-06 Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	765	mg/L	M		825			8	5
<u>Batch B323147 - No Prep - SM 2540C</u>									
Blank (B323147-BLK1)				Prepared & Analyzed: 01/13/23					
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		
<u>Batch B323225 - SW 3015 - EPA 6010B</u>									
Blank (B323225-BLK1)				Prepared: 01/16/23 Analyzed: 01/24/23					
Lithium	< 0.020	mg/L							
LCS (B323225-BS1)				Prepared: 01/16/23 Analyzed: 01/24/23					
Lithium	0.515	mg/L		0.5556		93	80-120		
<u>Batch B323225 - SW 3015 - EPA 6020A</u>									
Blank (B323225-BLK1)				Prepared: 01/16/23 Analyzed: 01/18/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B323225-BLK1)				Prepared: 01/16/23 Analyzed: 01/18/23					
Potassium	0.173	mg/L							
Selenium	< 1.0	ug/L							
Sodium	0.184	mg/L							
Thallium	< 1.0	ug/L							
LCS (B323225-BS1)				Prepared: 01/16/23 Analyzed: 01/18/23					
Antimony	524	ug/L		555.6		94	80-120		
Arsenic	539	ug/L		555.6		97	80-120		
Barium	582	ug/L		555.6		105	80-120		
Beryllium	603	ug/L		555.6		108	80-120		
Boron	618	ug/L		555.6		111	80-120		
Cadmium	520	ug/L		555.6		94	80-120		
Chromium	558	ug/L		555.6		100	80-120		
Cobalt	550	ug/L		555.6		99	80-120		
Lead	560	ug/L		555.6		101	80-120		
Magnesium	5.61	mg/L		5.556		101	80-120		
Mercury	52.6	ug/L		55.56		95	80-120		
Molybdenum	541	ug/L		555.6		97	80-120		
Potassium	5.71	mg/L		5.556		103	80-120		
Selenium	551	ug/L		555.6		99	80-120		
Sodium	5.63	mg/L		5.556		101	80-120		
Thallium	546	ug/L		555.6		98	80-120		
<u>Batch B323330 - SW 3015 - EPA 6010B</u>									
Blank (B323330-BLK1)				Prepared: 01/17/23 Analyzed: 01/24/23					
Lithium	< 0.020	mg/L							
LCS (B323330-BS1)				Prepared: 01/17/23 Analyzed: 01/24/23					
Lithium	0.513	mg/L		0.5556		92	80-120		
<u>Batch B323330 - SW 3015 - EPA 6020A</u>									
Blank (B323330-BLK1)				Prepared: 01/17/23 Analyzed: 01/19/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	0.256	mg/L	Bb						
Selenium	< 1.0	ug/L							
Sodium	0.312	mg/L	Bc						
Thallium	< 1.0	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B323330-BS1)				Prepared: 01/17/23 Analyzed: 01/19/23					
Antimony	526	ug/L		555.6		95	80-120		
Arsenic	552	ug/L		555.6		99	80-120		
Barium	541	ug/L		555.6		97	80-120		
Beryllium	561	ug/L		555.6		101	80-120		
Boron	507	ug/L		555.6		91	80-120		
Cadmium	531	ug/L		555.6		96	80-120		
Calcium	5.43	mg/L		5.556		98	80-120		
Chromium	556	ug/L		555.6		100	80-120		
Cobalt	547	ug/L		555.6		98	80-120		
Lead	530	ug/L		555.6		95	80-120		
Magnesium	5.63	mg/L		5.556		101	80-120		
Mercury	54.1	ug/L		55.56		97	80-120		
Molybdenum	546	ug/L		555.6		98	80-120		
Potassium	6.06	mg/L		5.556		109	80-120		
Selenium	536	ug/L		555.6		96	80-120		
Sodium	5.69	mg/L		5.556		102	80-120		
Thallium	530	ug/L		555.6		95	80-120		
<u>Batch B323334 - SW 3015 - EPA 6010B</u>									
Blank (B323334-BLK1)				Prepared: 01/17/23 Analyzed: 01/19/23					
Lithium	< 0.020	mg/L							
LCS (B323334-BS1)				Prepared: 01/17/23 Analyzed: 01/19/23					
Lithium	0.507	mg/L		0.5556		91	80-120		
Matrix Spike (B323334-MS1)				Sample: GA02365-17		Prepared: 01/17/23 Analyzed: 01/19/23			
Lithium	0.535	mg/L		0.5556	0.0401	89	75-125		
Matrix Spike Dup (B323334-MSD1)				Sample: GA02365-17		Prepared: 01/17/23 Analyzed: 01/19/23			
Lithium	0.528	mg/L		0.5556	0.0401	88	75-125	1	200
<u>Batch B323334 - SW 3015 - EPA 6020A</u>									
Blank (B323334-BLK1)				Prepared: 01/17/23 Analyzed: 01/18/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	0.177	mg/L	Ba						
Selenium	< 1.0	ug/L							
Sodium	0.195	mg/L							
Thallium	< 1.0	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B323334-BS1)				Prepared: 01/17/23 Analyzed: 01/18/23					
Antimony	530	ug/L		555.6		95	80-120		
Arsenic	544	ug/L		555.6		98	80-120		
Barium	581	ug/L		555.6		105	80-120		
Beryllium	616	ug/L		555.6		111	80-120		
Boron	506	ug/L		555.6		91	80-120		
Cadmium	528	ug/L		555.6		95	80-120		
Calcium	5.53	mg/L		5.556		100	80-120		
Chromium	571	ug/L		555.6		103	80-120		
Cobalt	560	ug/L		555.6		101	80-120		
Lead	574	ug/L		555.6		103	80-120		
Magnesium	5.59	mg/L		5.556		101	80-120		
Mercury	52.1	ug/L		55.56		94	80-120		
Molybdenum	553	ug/L		555.6		99	80-120		
Potassium	5.73	mg/L		5.556		103	80-120		
Selenium	568	ug/L		555.6		102	80-120		
Sodium	5.49	mg/L		5.556		99	80-120		
Thallium	562	ug/L		555.6		101	80-120		
Matrix Spike (B323334-MS1)				Sample: GA02365-17		Prepared: 01/17/23 Analyzed: 01/18/23			
Antimony	537	ug/L		555.6	ND	97	75-125		
Arsenic	570	ug/L		555.6	1.51	102	75-125		
Barium	604	ug/L		555.6	16.0	106	75-125		
Beryllium	603	ug/L		555.6	ND	109	75-125		
Boron	8020	ug/L		555.6	7550	85	75-125		
Cadmium	530	ug/L		555.6	ND	95	75-125		
Calcium	308	mg/L		5.556	303	99	75-125		
Chromium	557	ug/L		555.6	ND	100	75-125		
Cobalt	550	ug/L		555.6	ND	99	75-125		
Lead	591	ug/L		555.6	ND	106	75-125		
Magnesium	148	mg/L		5.556	144	88	75-125		
Mercury	57.7	ug/L		55.56	ND	104	75-125		
Molybdenum	581	ug/L		555.6	1.58	104	75-125		
Potassium	15.5	mg/L		5.556	10.1	97	75-125		
Selenium	578	ug/L		555.6	ND	104	75-125		
Sodium	298	mg/L	Q4	5.556	293	94	75-125		
Thallium	546	ug/L		555.6	ND	98	75-125		
Matrix Spike Dup (B323334-MSD1)				Sample: GA02365-17		Prepared: 01/17/23 Analyzed: 01/18/23			
Antimony	535	ug/L		555.6	ND	96	75-125	0.3	20
Arsenic	562	ug/L		555.6	1.51	101	75-125	1	20
Barium	595	ug/L		555.6	16.0	104	75-125	2	20
Beryllium	602	ug/L		555.6	ND	108	75-125	0.3	20
Boron	8100	ug/L		555.6	7550	99	75-125	1	20
Cadmium	527	ug/L		555.6	ND	95	75-125	0.6	20
Calcium	307	mg/L		5.556	303	75	75-125	0.4	20
Chromium	556	ug/L		555.6	ND	100	75-125	0.08	20
Cobalt	539	ug/L		555.6	ND	97	75-125	2	20
Lead	577	ug/L		555.6	ND	104	75-125	2	20
Magnesium	149	mg/L		5.556	144	102	75-125	0.5	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B323334-MSD1)				Sample: GA02365-17		Prepared: 01/17/23 Analyzed: 01/18/23			
Mercury	55.6	ug/L	Q4	55.56	ND	100	75-125	4	20
Molybdenum	575	ug/L		555.6	1.58	103	75-125	1	20
Potassium	15.6	mg/L		5.556	10.1	98	75-125	0.3	20
Selenium	576	ug/L		555.6	ND	104	75-125	0.3	20
Sodium	297	mg/L		5.556	293	74	75-125	0.4	20
Thallium	536	ug/L		555.6	ND	96	75-125	2	20
<u>Batch B323462 - No Prep - SM 2540C</u>									
Blank (B323462-BLK1)				Prepared & Analyzed: 01/18/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
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		
Solids - total dissolved solids (TDS)	967	mg/L		1000		97	84.9-109		
Duplicate (B323462-DUP1)				Sample: GA02365-14		Prepared & Analyzed: 01/18/23			
Solids - total dissolved solids (TDS)	775	mg/L			760			2	5
Solids - total dissolved solids (TDS)	775	mg/L			760			2	5
Duplicate (B323462-DUP2)				Sample: GA02365-17		Prepared & Analyzed: 01/18/23			
Solids - total dissolved solids (TDS)	2660	mg/L			2620			2	5
Solids - total dissolved solids (TDS)	2660	mg/L			2620			2	5
<u>Batch B323484 - No Prep - SM 2540C</u>									
Blank (B323484-BLK1)				Prepared & Analyzed: 01/18/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B323484-BS1)				Prepared & Analyzed: 01/18/23					
Solids - total dissolved solids (TDS)	960	mg/L		1000		96	84.9-109		
Duplicate (B323484-DUP1)				Sample: GA02365-23		Prepared & Analyzed: 01/18/23			
Solids - total dissolved solids (TDS)	2200	mg/L			2180			1	5
<u>Batch B323535 - No Prep - SM 2320B 1997</u>									
Duplicate (B323535-DUP3)				Sample: GA02056-02		Prepared & Analyzed: 01/17/23			
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L			ND				10
Duplicate (B323535-DUP6)				Sample: GA02365-22		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-DUP3)				Sample: GA02056-02		Prepared & Analyzed: 01/17/23			
Alkalinity - bicarbonate as CaCO ₃	325	mg/L			312			4	10
Duplicate (B323536-DUP6)				Sample: GA02365-22		Prepared & Analyzed: 01/17/23			
Alkalinity - bicarbonate as CaCO ₃	225	mg/L			225			0	10
<u>Batch B323566 - SW 3015 - EPA 6020A</u>									
Blank (B323566-BLK1)				Prepared: 01/19/23 Analyzed: 01/20/23					
Calcium	< 0.20	mg/L							
LCS (B323566-BS1)				Prepared: 01/19/23 Analyzed: 01/20/23					
Calcium	5.44	mg/L		5.556		98	80-120		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B323851 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B323851-CCB1)				Prepared & Analyzed: 01/21/23					
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B323851-CCV1)				Prepared & Analyzed: 01/21/23					
Fluoride	5.11	mg/L		5.000		102	90-110		
Sulfate	4.82	mg/L		5.000		96	90-110		
Chloride	4.79	mg/L		5.000		96	90-110		
<u>Batch B323854 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B323854-CCB1)				Prepared & Analyzed: 01/21/23					
Chloride	0.220	mg/L							
Fluoride	0.00	mg/L							
Calibration Check (B323854-CCV1)				Prepared & Analyzed: 01/21/23					
Chloride	5.42	mg/L		5.000		108	90-110		
Fluoride	5.42	mg/L		5.000		108	90-110		
<u>Batch B324042 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324042-CCB1)				Prepared & Analyzed: 01/24/23					
Sulfate	0.00	mg/L							
Calibration Check (B324042-CCV1)				Prepared & Analyzed: 01/24/23					
Sulfate	4.77	mg/L		5.000		95	90-110		
<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							
Fluoride	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		
Fluoride	5.17	mg/L		5.000		103	90-110		
Sulfate	4.96	mg/L		5.000		99	90-110		
<u>Batch B324218 - No Prep - SM 4500F C 1997</u>									
Matrix Spike (B324218-MS4)		Sample: GA02056-02		Prepared & Analyzed: 01/27/23					
Fluoride	1.26	mg/L		1.000	0.238	102	80-120		
Matrix Spike (B324218-MS5)		Sample: GA02365-15		Prepared & Analyzed: 01/27/23					
Fluoride	1.21	mg/L		1.000	0.203	100	80-120		
Matrix Spike Dup (B324218-MSD4)		Sample: GA02056-02		Prepared & Analyzed: 01/27/23					
Fluoride	1.26	mg/L		1.000	0.238	102	80-120	0.08	20
Matrix Spike Dup (B324218-MSD5)		Sample: GA02365-15		Prepared & Analyzed: 01/27/23					
Fluoride	1.22	mg/L		1.000	0.203	102	80-120	1	20
<u>Batch B324440 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324440-CCB1)				Prepared & Analyzed: 01/27/23					
Sulfate	0.00	mg/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Check (B324440-CCV1)				Prepared & Analyzed: 01/27/23					
Sulfate	4.97	mg/L		5.000		99	90-110		
<u>Batch B324442 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324442-CCB1)				Prepared & Analyzed: 01/27/23					
Sulfate	0.00	mg/L							
Chloride	0.496	mg/L							
Calibration Check (B324442-CCV1)				Prepared & Analyzed: 01/27/23					
Sulfate	4.95	mg/L		5.000		99	90-110		
Chloride	4.76	mg/L		5.000		95	90-110		
<u>Batch B324452 - No Prep - SM 4500F C 1997</u>									
Calibration Blank (B324452-CCB1)				Prepared & Analyzed: 01/31/23					
Fluoride	0.0190	mg/L							
Calibration Blank (B324452-CCB2)				Prepared & Analyzed: 01/31/23					
Fluoride	0.0120	mg/L							
Calibration Check (B324452-CCV1)				Prepared & Analyzed: 01/31/23					
Fluoride	0.657	mg/L		0.7000		94	90-110		
Calibration Check (B324452-CCV2)				Prepared & Analyzed: 01/31/23					
Fluoride	0.679	mg/L		0.7000		97	90-110		
<u>Batch B324532 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324532-CCB1)				Prepared & Analyzed: 01/31/23					
Sulfate	0.00	mg/L							
Calibration Check (B324532-CCV1)				Prepared & Analyzed: 01/31/23					
Sulfate	4.99	mg/L		5.000		100	90-110		



NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

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

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

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

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

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

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

USEPA DMR-QA Program

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

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

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

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

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

Qualifiers

- B Present in the method blank at 173 ug/L.
- Ba Present in the method blank at 177 ug/L.
- Bb Present in the method blank at 256 ug/L.
- Bc Present in the method blank at 312 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



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Page: 1 of 7

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 day		Project Number: 2285		Project Manager:	
				Profile #:	
				REGULATORY AGENCY	
				NPDES GROUND WATER DRINKING WATER	
				UST RCRA OTHER	
				Site Location	
				STATE: IL	

Section D Required Client Information		Valid Matrix Codes MATRIX CODE		COLLECTED		PRESERVATIVES		Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.					
ITEM #	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	MATRIX	CODE	DATE	TIME	UNPRESERVED	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test	DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202	Residual Chlorine (Y/N)	
1	BA01	WT	G	1/10/23	1216	X																	
2	BA02	WT	G	1/10/23	1315	X																	
3	BA02L	WT	G	1/10/23	1246	X																	
4	BA03	WT	G	1/10/23	1100	X																	
5	BA03L	WT	G	1/10/23	1141	X																	
6	BA04	WT	G	1/10/23	1033	X																	
7	BA05	WT	G	1/10/23	1354	X																	
8	BA06	WT	G	1/10/23	1456	X	X	X															
9	G02S																						
10	G04S																						
11	G06L																						
12	G06S																						
13	G07L																						
14	G08L																						
15	G09L																						
16	G09S																						
ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION				DATE	TIME	SAMPLE CONDITIONS									
DC-Q1-2023 Rev 2						1/10/23						1-11-23	700	0.9	Y	N	Y						

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Aaron Pemberton					
SIGNATURE of SAMPLER:					
DATE Signed (MM/DD/YYYY): 01/10/23					

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Page: 2 of 7

Section C

Invoice Information:

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

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE		COLLECTED DATE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↓ Analysis Test ↓	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSUE	DW WT WW P SL OL WP AR OT TS				MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	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_CLOSURE_201-202	DC_WPCP_203-206	DC_845_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 2				1/10/23				1-11-23	700	0.9	Y	N	Y																

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Aaron Pemberton				
SIGNATURE of SAMPLER:	 DATE Taken (MM/DD/YY): 01/10/23				

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Section A

Required Client Information:

Section B

Required Project Information:

Section C

Invoice Information:

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

ITEM #	Section D Required Client Information	Valid Matrix Codes <u>MATRIX</u> DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓ Analysis Test ↑ Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.		
					DATE	TIME			Unpreserved	H_2SO_4	HNO_3	HCl	$NaOH$	$Na_2S_2O_3$	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202							
1	G66L		WT G	1/10/23	1315	2	X	X																							
2	G66S		WT G	1/10/23	1251	2	X	X																							
3	G67L		WT G	1/10/23	1401	2	X	X																							
4	G67S		WT G	1/10/23	1442	2	X	X																							
5	G70L		WT G	1/10/23	1029	2	X	X																							
6	G71L																														
7	G71S		WT G	1/10/23	1102	2	X	X																							
8	G72L																														
9	G73L		WT G	1/10/23	1133	2	X	X																							
10	OM01																														
11	OM04S																														
12	OM05S - DTW																														
13	OM07																														
14	OM08 - DTW																														
15	OM09 - DTW																														
16	OM10 - DTW																														
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE		TIME		ACCEPTED BY / AFFILIATION				DATE		TIME		SAMPLE CONDITIONS													
DC-Q1-2023 Rev 2			<i>C. [Signature]</i>			1/10/23				<i>Jana Woyner</i>				1-11-23		700		0.9 Y N Y													

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: <i>Daron Kember</i>					
SIGNATURE of SAMPLER: <i>[Signature]</i>	DATE Signed (MM/DD/YY): <i>01/10/23</i>				

count

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Page: 1 of 7

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

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test	Requested Analysis Filtered (Y/N)								Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202			
1	BA01	WT	G	1/10/23	1216	2	X	X																			
2	BA02	WT	G	1/10/23	1315	2	X	X																			
3	BA02L	WT	G	1/10/23	1246	2	X	X																			
4	BA03	WT	G	1/10/23	1109	2	X	X																			
5	BA03L	WT	G	1/10/23	1141	2	X	X																			
6	BA04	WT	G	1/10/23	1033	2	X	X																			
7	BA05	WT	G	1/10/23	1359	2	X	X																			
8	BA06	WT	G	1/10/23	1456	4	X	X	X																		
9	G02S																										
10	G04S																										
11	G06L																										
12	G06S																										
13	G07L																										
14	G08L																										
15	G09L																										
16	G09S																										

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS			
DC-Q1-2023 Rev 2				1/10/23				Vance Wayne		1-11-23		700		0.9 Y N Y			

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					
		DATE Signed (MM/DD/YY): 01/10/23			

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CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 5 of 7	
Company: <u>Vistra Corp</u>		Report To: <u>Brian Voelker</u>		Attention: <u>Jason Stuckey</u>		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER	
Address: <u>13498 E. 900th St</u>		Copy To: <u>Jason Stuckey</u>		Company Name: <u>Vistra Corp</u>			
Email To: <u>Brian.Voelker@VistraCorp.com</u>		Purchase Order No.:		Address: <u>see Section A</u>			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:		Site Location	
Requested Due Date/TAT: <u>10 day</u>		Project Number: <u>2285</u>		Project Manager:		STATE: <u>IL</u>	
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202					
1	OM12		WT	G	1/10/23	1515		S	X	X																			
2	OM15 - DTW																												
3	OM16																												
4	OM17																												
5	OM21																												
6	OM22D		WT	G	1/10/23	1356		S	X	X																			
7	OM22S - DTW																												
8	OM23D																												
9	OM23S - DTW																												
10	OM24D		WT	G	1/10/23	1136		S	X	X																			
11	OM25D - DTW																												
12	OM25S		WT	G	1/10/23	1219		S	X	X																			
13	OR02																												
14	OR03D																												
15	OR03S - DTW																												
16	OR04D																												

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
DC-Q1-2023 Rev 2				1/10/23				1-11-23	700	0.9	Y	N	Y

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					
DATE Signed (MM/DD/YY): 01/10/23					

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GA02056-20

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location STATE: IL	
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 day		Project Number: 2285		Project Manager:			
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER WATER WASTE WATER PRODUCT SOIL/SOLID G.L. WIPE AIR OTHER TISSUE	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	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.	
									Analysis Test ↓	DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202					
1	BA01																				
2	BA02																				
3	BA02L																				
4	BA03																				
5	BA03L																				
6	BA04																				
7	BA05																				
8	BA06																				
9	G02S	WFG	1/11/23	1025		2															
10	G04S	WFG	1/11/23	1101		2															
11	G06L	WFG	1/11/23	1150		2															
12	G06S	WFG	1/11/23	1535		2															
13	G07L																				
14	G08L																				
15	G09L	WFG	1/11/23	1430		0															
16	G09S	WFG	1/11/23	1420		2															
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS										
DC-Q1-2023 Rev 3					1/11/23	1025															
SAMPLER NAME AND SIGNATURE										Temp in °C		Received on Ice (Y/N)		Custody Sealed Cooler (Y/N)		Samples Intact (Y/N)					
PRINT Name of SAMPLER: <i>Wendy Harok</i>										0.8		Y		N		Y					
SIGNATURE of SAMPLER: <i>[Signature]</i>										DATE Signed (MM/DD/YY) 1/11/23											

LA
1/19/23 for Joseph Reed

[Signature]
1-11-23
16:30

BA02056-20

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 2 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			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A		NPDES GROUND WATER DRINKING WATER	
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:		UST RCRA OTHER	
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:		Site Location	
				Profile #:		STATE: IL	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	SAMPLE TYPE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Requested Analysis Filtered (Y/N)								Residual Chlorine (Y/N)	Project No./ Lab I.D.		
				DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202					
1	G12S																											
2	G15S																											
3	G50L		WT G	1/11/23	1550		2																					
4	G50S																											
5	G51L																											
6	G51S																											
7	G52L																											
8	G52S																											
9	G53L		WT G	1/11/23	1444		2																					
10	G53S		WT G	1/11/23	1417		2																					
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	1425				0.8	Y	N	Y

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: <i>Udney Hawksworth</i>					
SIGNATURE of SAMPLER:					
DATE Signed (MM/DD/YYYY): 1/11/23					

24
1/12/23 for Joseph Pineda

1-11-23
16:30

67

GA02056 - 20

Page: 5 of 7

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 5 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			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Quote Reference:		NPDES GROUND WATER DRINKING WATER	
Phone: (217) 753-8911		Project Name:		Project Manager:		UST RCRA OTHER	
Fax:		Project Number: 2265		Profile #:		Site Location	
Requested Due Date/TAT: 10 day						STATE: IL	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOLID/SOLID SL OIL OL WASTE 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)								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		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202			
1		OM12																									
2		OM15																									
3		OM16																									
4		OM17																									
5		OM21																									
6		OM22D																									
7		OM22S																									
8		OM23D																									
9		OM23S																									
10		OM24D																									
11		OM25D																									
12		OM25S																									
13		OR02	WTG	1/11/23	1225		5																				
14		OR03D	WTG	1/11/23	1400		5																				
15		OR03S	WTG	1/11/23	1532		5																				
16		OR04D	WTG	1/11/23			5																				
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE	TIME	ACCEPTED BY / AFFILIATION			DATE	TIME	SAMPLE CONDITIONS														
DC-Q1-2023 Rev 3						1/11/23	1425																				
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:																											
SIGNATURE of SAMPLER:																											
DATE Signed (MM/DD/YYYY):																											

24 for Joseph Reed
1/12/23

1-11-23
16:30

GA02056-20

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Page: 6 of 7

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 6 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	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOLID SL 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										Analysis Test ↓ Analysis Test ↑	Requested Analysis Filtered (Y/N)								Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	DC_257_203	DC_257_204		DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202					
1	OR05D																												
2	OR08A		WIG	1/11/23	12:43		5																						
3	OR11																												
4	OR13D																												
5	OR13S																												
6	OR14D																												
7	OR14S																												
8	OR18																												
9	OR19																												
10	OR20																												
11	P36L																												
12	P37L																												
13	R10L																												
14	R61L																												
15	R72S																												
16	T43L																												
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE	TIME	ACCEPTED BY / AFFILIATION			DATE	TIME	SAMPLE CONDITIONS																
DC-Q1-2023 Rev 3						1/11/23	14:25						08 Y N Y																
SAMPLER NAME AND SIGNATURE																													
PRINT Name of SAMPLER: Lindsey H. [Signature]																													
SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YYYY): 1/11/23																													
Temp in °C																													
Received on (see Y/N)																													
Custody Sealed Cooler (Y/N)																													
Samples Intact (Y/N)																													

LK for Joseph and
 1/2/23

NAME OF SAMPLER: Wendy H. Hokenberry
 NAME OF SAMPLER: [Signature] DATE Signed (MM/DD/YY): 1/11/23
[Signature] 1-11-23
16:30

GA02365-026 8AB

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Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 2 of 7	
Company: <u>Vistra Corp</u>		Report To: <u>Brian Voelker</u>		Attention: <u>Jason Stuckey</u>		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER	
Address: <u>13498 E. 900th St</u>		Copy To: <u>Jason Stuckey</u>		Company Name: <u>Vistra Corp</u>			
				Address: <u>see Section A</u>			
Email To: <u>Brian.Voelker@VistraCorp.com</u>		Purchase Order No.:		Quote Reference:			
Phone: <u>(217) 753-8911</u>	Fax:	Project Name:		Project Manager:		Site Location STATE:	
Requested Due Date/TAT: 10 day		Project Number: <u>2285</u>		Profile #:			
						IL	

[illegible]

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS											
DC-Q1-2023 Rev 3	<i>[Signature]</i>	7/12/23	12:22				1.7	Y	N	Y								
<table border="1"> <tr> <th colspan="2">SAMPLER NAME AND SIGNATURE</th> </tr> <tr> <td>PRINT Name of SAMPLER:</td> <td><i>Arson Kimberson</i></td> </tr> <tr> <td>SIGNATURE of SAMPLER:</td> <td><i>[Signature]</i></td> </tr> <tr> <td>DATE Signed (MM/DD/YY):</td> <td>01/12/23</td> </tr> </table>							SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:	<i>Arson Kimberson</i>	SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YY):	01/12/23	Temp in °C	Received in Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SAMPLER NAME AND SIGNATURE																		
PRINT Name of SAMPLER:	<i>Arson Kimberson</i>																	
SIGNATURE of SAMPLER:	<i>[Signature]</i>																	
DATE Signed (MM/DD/YY):	01/12/23																	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY):

DATE Signed (MM/DD/YY): 01/12/22

Temp in °C

Received (Date)
ice (Y/N)

Custody	
Sealed Cooler	(Y/N)

Samples Interacted (X²)

1-13.23 7:15am

GA 02365

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 3 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER	
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:			
Phone: (217) 753-8911		Fax:		Project Name:		Site Location	
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:		STATE: IL	
				Profile #:			

[illegible]

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS											
DC-Q1-2023 Rev 3	<i>[Signature]</i>	1/12/23	1722				1.7	Y	N	Y								
<table border="1"> <tr> <th colspan="2">SAMPLER NAME AND SIGNATURE</th> </tr> <tr> <td>PRINT Name of SAMPLER:</td> <td><i>Dawn Bombardieri</i></td> </tr> <tr> <td>SIGNATURE of SAMPLER:</td> <td><i>[Signature]</i></td> </tr> <tr> <td>DATE Signed (MM/DD/YY):</td> <td>01/12/23</td> </tr> </table>							SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:	<i>Dawn Bombardieri</i>	SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YY):	01/12/23	Temp in °C	Revised on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SAMPLER NAME AND SIGNATURE																		
PRINT Name of SAMPLER:	<i>Dawn Bombardieri</i>																	
SIGNATURE of SAMPLER:	<i>[Signature]</i>																	
DATE Signed (MM/DD/YY):	01/12/23																	

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GA02365

Page: 4 of 7

REGULATORY AGENCY

1-13.23 7:15am

CHAIN-OF-CUSTODY / Analytical Request Document

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GA02365

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 5 of 7	
Company: <u>Vistra Corp</u>		Report To: <u>Brian Voelker</u>		Attention: <u>Jason Stuckey</u>		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER	
Address: <u>13498 E. 900th St</u>		Copy To: <u>Jason Stuckey</u>		Company Name: <u>Vistra Corp</u>			
Email To: <u>Brian.Voelker@VistraCorp.com</u>		Purchase Order No.:		Address: <u>see Section A</u>			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:		Site Location	
Requested Due Date/TAT: <u>10 day</u>		Project Number: <u>2285</u>		Project Manager:		STATE: <u>IL</u>	
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIFE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (use water codes to left)	SAMPLE TYPE (Q=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202					
1	OM12																												
2	OM15																												
3	OM16		WTG	1/12/23	1119	3	X	X																					
4	OM17		WTG	1/12/23	1009	3	X	X																					
5	OM21		WTG	1/12/23	1536	5	X	X																					
6	OM22D																												
7	OM22S																												
8	OM23D		WTG	1/12/23	1308	5	X	X																					
9	OM23S																												
10	OM24D																												
11	OM25D																												
12	OM25S																												
13	OR02																												
14	OR03D																												
15	OR03S																												
16	OR04D																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
DC-Q1-2023 Rev 3		1/12/23	1722								

SAMPLER NAME AND SIGNATURE		Temp in °C	Reaches 4°C in (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					

DATE Signed (MM/DD/YYYY): 01/12/23

1-13-23 7:15am

CHAIN-OF-CUSTODY / Analytical Request Document

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GA 02365-26
SAB

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 6 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:		Site Location	
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:		STATE: IL	
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOLUSOLID SL OIL OL WIPE WIP AIR AR OTHER OT ISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Requested Analysis Filtered (Y/N)								Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202			
1	OR05D																										
2	OR06A																										
3	OR11		WT G	1/12/23	1425		5	X	X																		
4	OR13D		WT G	1/12/23	1421		5	X	X																		
5	OR13S		WT G	1/12/23	1421		5	X	X																		
6	OR14D		WT G	1/12/23	1220		5	X	X																		
7	OR14S																										
8	OR18																										
9	OR19		WT G	1/12/23	1434		5	X	X																		
10	OR20		WT G	1/12/23	1455		5	X	X																		
11	P36L																										
12	P37L																										
13	R10L																										
14	R61L		WT G	1/12/23	1303		2	X	X																		
15	R72S		WT G	1/12/23	1012		2	X	X																		
16	T43L																										

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS													
DC-Q1-2023 Rev 3				1/12/23	1722					1.7	Y	2	Y										
<table border="1"> <tr> <td colspan="2">SAMPLER NAME AND SIGNATURE</td> <td rowspan="3">Temp in °C</td> <td rowspan="3">Received Oil Ice (Y/N)</td> <td rowspan="3">Custody Sealed Cooler (Y/N)</td> <td rowspan="3">Samples intact (Y/N)</td> </tr> <tr> <td colspan="2">PRINT Name of SAMPLER:</td> </tr> <tr> <td colspan="2">SIGNATURE of SAMPLER:</td> </tr> </table>														SAMPLER NAME AND SIGNATURE		Temp in °C	Received Oil Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples intact (Y/N)	PRINT Name of SAMPLER:		SIGNATURE of SAMPLER:	
SAMPLER NAME AND SIGNATURE		Temp in °C	Received Oil Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples intact (Y/N)																		
PRINT Name of SAMPLER:																							
SIGNATURE of SAMPLER:																							

Duck Creek

WELL/SAMPLE POINT **BA06**

Purge Method: Bladder

Date: 1/10/23 Start Time: 1401 Finish/Sample Time: 1456

Well Depth (Bottom) From MP: 40.72 ft TOP OF PUMP Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 28.18 ft Total Purge Volume: 1.8 Gal / L

Water Column Length: 4.13 ft Max Drawdown: NA ft

Well Water Volume: NA Gal / L Total Drawdown: 4.13 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	1416	30.07	100	6.66	3090	11.68	-23	3.85	865
2	1417	30.12	100	6.65	3090	11.64	-23	3.68	>1000
3	1418	30.20	100	6.65	3090	11.66	-26	3.64	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

Qty	Unfiltered 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)
1	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL) <u>1000 mL</u>
1	<u>2.5L HCl</u>

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

Final DTW: 32.31 ft

Comments

Sampler's Signature: Joseph R Red

Duck Creek

WELL/SAMPLE POINT OM01

Purge Method: portable pump

Date: 1/11/2023 Start Time: 0948 Finish/Sample Time: 1105

Well Depth (Bottom) From MP: 27.79 ft 27.80 Min. Purge Volume: — Gal / L
 Depth to Water From MP: 13.76 ft Total Purge Volume: 1000 Gal / L (m.L)
 Water Column Length: 14.04 ft Max Drawdown: — ft
 Well Water Volume: 8.40 Gal (L) Total Drawdown: 6.72 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1020	17.72	100	6.32	3680	11.37	86	1.92	58.9
2	1022	17.90	100	6.33	3680	11.34	87	1.93	58.0
3	1024	18.08	100	6.33	3680	11.29	87	1.88	56.8
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	✓	
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)
1	General (P, 250 mL) <u>1000mL</u>
1	<u>P, 2.5 L, H/NO3</u>

(3)

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

APP 1/11/23

Final DTW: 20.48 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR02

Purge Method: portable pump

Date: 1/11/2023 Start Time: 1:10 Finish/Sample Time: 12:28

Well Depth (Bottom) From MP: 22.28 ~~22.14~~ ft

Min. Purge Volume: — Gal / L

Depth to Water From MP: 6.32 ft

Total Purge Volume: 1000 Gal / L

Water Column Length: 15.96 ft

Max Drawdown: — ft

Well Water Volume: 9.65 Gal

Total Drawdown: 0.08 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1135	6.40	100	6.70	2140	12.22	46	1.36	>1000 *
2	1137	6.40	100	6.70	2140	12.20	46	1.28	>1000 *
3	1139	6.40	100	6.70	2140	12.13	52	1.27	>1000 *
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☒ Mod. ☒ Strong APP 1/11/23

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:

Qty	Unfiltered 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) 1000 mV
1	P, 2.5L, HNO3

(5)

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

Final DTW: 6.40 ft

Comments Turbidity above 1000 NTU, max turbidity read on horiba
15 1000 NTU

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR03D

Purge Method: portable pump

Date: 1/11/2023 Start Time: 1235 Finish/Sample Time: 1400

Well Depth (Bottom) From MP: 77.72 ft 77.72 Min. Purge Volume: — Gal / L
 Depth to Water From MP: 44.63 ft Total Purge Volume: 1000 Gal / L (2)
 Water Column Length: 33.09 ft Max Drawdown: — ft
 Well Water Volume: 2000 Gal / L Total Drawdown: 0.03 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	1305	44.66	100	6.65	497.0	13.94	62	2.23	>1000*
2	1307	44.66	100	6.62	5240	14.08	59	2.00	>1000*
3	1309	44.66	100	6.61	5260	14.26	58	1.82	>1000*
4	1311	44.66	100	6.61	5290	14.38	57	1.80	>1000*
5	1313	44.66	100	6.60	5310	14.43	57	1.78	>1000*
Stabilization	NA	NA	NA	±0.2	±3%	±0.2	±20	±10% or 0.2	NA

Field Meter: Horiba

Sample Appearance: off 1/1/23

Odor: ☒ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C.V, 40mL, HCL)
	VOAs (C.V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, 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	P, 2.5L, HNO3

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

Final DTW: 44.66 ft

Comments Turbidity above 1000 NTU, max turbidity reads on horiba: >1000 NTU

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT **OM04S**

Purge Method: submersible

Date: 1/12/23 Start Time: 1225 Finish/Sample Time: 1325

Well Depth (Bottom) From MP: 35.85 ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 20.91 ft Total Purge Volume: 1.8 Gal / L

Water Column Length: 14.94 ft Max Drawdown: — ft

Well Water Volume: 9.04 Gal / L Total Drawdown: 5.55 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	1240	24.02	100	7.27	1190	6.39	39	4.09	71.0
2	1241	24.10	100	7.10	1190	6.58	32	4.00	69.3
3	1242	24.18	100	7.01	1190	6.63	28	3.93	70.9
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	☒	
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)
1	General (P, 250mL) <u>100mL</u>
1	<u>250mL HCL</u>

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

Final DTW: 26.46 ft

Comments

Sampler's Signature: Joseph R. Reed

Duck Creek

WELL/SAMPLE POINT OR04D

Purge Method: portable pump

Date: 1/11/2023 Start Time: 1410 Finish/Sample Time: 1532

Well Depth (Bottom) From MP: ~~67.00~~ 67.89 ft Min. Purge Volume: — Gal / L

Depth to Water From MP: 21.42 ft Total Purge Volume: 1000 Gal / L (ml)

Water Column Length: 46.47 ft Max Drawdown: — ft

Well Water Volume: 28.11 Gal (C) Total Drawdown: NA 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	1440	21.57	100	6.64	6660	13.68	-14	1.49	163
2	1442	21.52	100	6.61	6470	13.67	-10	1.31	158
3	1444	21.52	100	6.59	6180	13.67	-8	1.30	154
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)
1	General (P, 250 mL) <u>1000 mL</u>
1	<u>P, 2.5 L, HNO3</u>

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

Final DTW: NM ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR06A

Purge Method: bailer

Date: 1/11/23 Start Time: 1220 Finish/Sample Time: 1243

Well Depth (Bottom) From MP: 25.65 ft Min. Purge Volume: 21.3 Gal (L)

Depth to Water From MP: 13.91 ft Total Purge Volume: 24 Gal (L)

Water Column Length: 11.74 ft Max Drawdown: — ft

Well Water Volume: 7.10 Gal (L) Total Drawdown: 1.65 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1227	14.39	7 bails	6.76	2870	12.94	-27	4.19	295
2	1233	14.95	7 bails	6.81	2870	12.87	-35	4.03	333
3	1238	15.41	7 bails	6.92	2890	12.80	-41	4.00	506
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)
1	General (P, 500mL) <u>1000 mL</u>
1	<u>2.52 HCL</u>

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

Final DTW: 15.56 ft

Comments

Sampler's Signature: Joseph R Reed

Duck Creek

WELL/SAMPLE POINT **OM07**

Purge Method: bailer

Date: 1/11/23 Start Time: 1302 Finish/Sample Time: 1359

Well Depth (Bottom) From MP: 29.92 ft Min. Purge Volume: 30.94 Gal L

Depth to Water From MP: 12.87 ft Total Purge Volume: 31 Gal L

Water Column Length: 17.05 ft Max Drawdown: — ft

Well Water Volume: 10.31 Gal / L Total Drawdown: 0.62 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1320	12.98	11 bails	7.10	1190	13.09	-39	5.58	79.7
2	1328	13.09	10 bails	7.08	1190	13.00	-38	5.52	88.3
3	1337	13.20	10 bails	7.07	1200	12.90	-39	5.49	89.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: None ☒ Slight ☐ Mod. ☐ Strong

Color: None ☒ Slight ☐ Mod. ☐ Strong

Turb: None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	☒	☒
Casing locked/secure	☒	☐
Well cap fits securely.	☒	☐
Good seal/drainage	<u>NA</u>	☐
Well has weep holes	<u>NA</u>	☐

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>100 mL</u>
1	<u>2.5 HCL</u>

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

Final DTW: 13.49 ft

Comments

Sampler's Signature: Joseph A. Reed

Duck Creek

WELL/SAMPLE POINT **OR11**

Purge Method: bailer

Date: 1/12/2013 Start Time: 1329

Finish/Sample Time: 1425

Well Depth (Bottom) From MP: 43.85 ft

Min. Purge Volume: 6.79 Gal / L

Depth to Water From MP: 32.61 ft

Total Purge Volume: 21 Gal / L

Water Column Length: 11.24 ft

Max Drawdown: ✓ ft

Well Water Volume: 6.79 Gal / L

Total Drawdown: 0.79 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	1359	32.74	7 bails	7.24	1260	9.71	-4	6.31	>1000
2	1410	32.82	7 bails	7.21	1270	9.75	-6	6.20	>1000
3	1421	32.91	7 bails	7.19	1270	9.79	-9	6.09	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☐ Mod. ☒ Strong

Turb: ☐ None ☐ Slight ☐ Mod. ☒ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, 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 HNO3

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

Final DTW: 33.40 ft

Comments

Sampler's Signature: Joseph R. Reed

Duck Creek

WELL/SAMPLE POINT OM12

Purge Method: portable pump

Date: 1/10/2023 Start Time: 14 10 Finish/Sample Time: 1315 1515
App 1/10/23

Well Depth (Bottom) From MP: 43.19 ft 43.08

Min. Purge Volume: — Gal / L

Depth to Water From MP: 17.51 ft

Total Purge Volume: 1000 Gal / L (2)

Water Column Length: 25.57 ft

Max Drawdown: ✓ ft

Well Water Volume: 15.46 Gal / L (C)

Total Drawdown: 0.30 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1426	17.77	100	6.60	2090	12.11	-41	2.55	776
2	1428	17.77	100	6.60	2090	12.12	-40	2.55	726
3	1430	17.77	100	6.60	2090	12.11	-39	2.63	597
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

Well Integrity	Yes	No
Well has ID sign		X
Casing locked/secure		X
Well cap fits securely.	✓	
Good seal/drainage	✓	
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)
1	General (P, 250 mL)
1	P, 2.5 L, HNO3

(S)

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

Final DTW: 17.81 ft

Comments no casing

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR1305

Purge Method: Submersible

Date: 1/12/23 Start Time: 1030 Finish/Sample Time: 1121

Well Depth (Bottom) From MP: 29.55 ft Min. Purge Volume: 182.5 Gal / L

Depth to Water From MP: 13.47 ft Total Purge Volume: 1.8 Gal / L

Water Column Length: 16.08 ft Max Drawdown: — ft

Well Water Volume: 9.73 Gal / L Total Drawdown: 0.08 ft

Reading (Units)	Time	Depth	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1045	13.55	100	6.90	2,240	10.51	-40	3.97	676
2	1046	13.55	100	6.88	2,250	10.47	-40	3.84	598
3	1047	13.55	100	6.83	2,270	10.39	-43	3.71	564
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	2.5 L HCL HNO3
1	1000 mL P

5

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

Final DTW: 13.55 ft

Comments

Sampler's Signature:

Joseph R. Reed

Duck Creek

WELL/SAMPLE POINT OR138 D

Purge Method: 3 Vbmersible

Date: 1/12/23 Start Time: 9:33 Finish/Sample Time: 10:29

Well Depth (Bottom) From MP: 29.33 ft 50.29 Min. Purge Volume: 28.94 Gal / L 1.5 L

Depth to Water From MP: 13.60 ft Total Purge Volume: 32 Gal / L 1.8 L

Water Column Length: JR 15.95 ft 36.63 Max Drawdown: — ft

Well Water Volume: 9.65 Gal / L 22.15 Total Drawdown: 0.0 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	949	<u>9.44</u>	100	6.61	1880	10.80	225	4.59	123
2	952	<u>13.60</u>	100	6.64	1880	10.75	222	4.44	129
3	951	<u>13.60</u>	100	6.67	1880	10.71	219	4.38	139
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)
1	General (P, 250 mL) <u>1000mL</u>
1	<u>2.5 L HET HNO3</u>

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

Final DTW: 13.60 ft

Comments

Sampler's Signature: Joseph R. Ray

Duck Creek

WELL/SAMPLE POINT **OR14D**

Purge Method: Submersible

Date: 4/12/23 Start Time: 1124 Finish/Sample Time: 1220

Well Depth (Bottom) From MP: 1/12/23 48.78 ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 10.36 ft Total Purge Volume: 1.8 Gal / L

Water Column Length: 38.42 ft Max Drawdown: — ft

Well Water Volume: 23.24 Gal / L Total Drawdown: 0.0 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1139	10.36	100	6.82	2960	10.19	1	4.05	296
2	1140	10.36	100	6.81	2960	10.18	3	3.96	300
3	1141	10.36	100	6.81	2960	10.16	6	3.89	287
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)
1	General (P, 250 mL)
1	2.5L HCL HNO3

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

Final DTW: 10.36 ft

Comments

Sampler's Signature: Joseph A Red

Duck Creek

WELL/SAMPLE POINT OM16

Purge Method: boiler

Date: 1/12/2023 Start Time: 1033 Finish/Sample Time: 1119

Well Depth (Bottom) From MP: 43.45 ft Min. Purge Volume: ✓ Gal / L

Depth to Water From MP: 24.79 ft Total Purge Volume: 12 Gal ①

Water Column Length: 18.66 ft Max Drawdown: ~ ft

Well Water Volume: 11.29 Gal ① Total Drawdown: 13.47 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	1109	34.40	-	6.52	3960	9.14	44	2.03	1000 *
2	1112	35.10	-	6.53	3960	9.13	44	2.00	1000 *
3									
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☐ Mod. ☒ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	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 mL
1	P, 2.5L, HNO3

③

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

Final DTW: 38.26 ft

Comments: only 1 well volume purged due to significant draw down (~10 ft per well volume)

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM17

Purge Method: bail

Date: 1/12/2023 Start Time: 0947 Finish/Sample Time: 1009

Well Depth (Bottom) From MP: 17.44 ft
 Depth to Water From MP: 13.04 ft
 Water Column Length: 4.40 ft
 Well Water Volume: 2.66 Gal / (1)
 Min. Purge Volume: - Gal / L
 Total Purge Volume: 1/2 Gal / (1)
 Max Drawdown: - ft
 Total Drawdown: 2.66 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	0957	13.75	-	6.83	2180	11.10	44	2.37	1000*
2	1002	14.20	-	6.79	2060	10.98	42	2.35	1000*
3									
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

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

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	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	P, 2.5L, HNO3

(3)

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

Final DTW: 15.70 ft

Comments: only 1/2 bail purged due to water level being below SL

* Turbidity above 1000 NTU

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR19

Purge Method: 6a/10

Date: 1/12/2022 Start Time: 1342 Finish/Sample Time: 1434

Well Depth (Bottom) From MP: 55.02 ft

Min. Purge Volume: — Gal / L

Depth to Water From MP: 26.37 ft

Total Purge Volume: 820 Gal / L

Water Column Length: 28.65 ft

Max Drawdown: — ft

Well Water Volume: 7.33 Gal / L

Total Drawdown: 0.32 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	1402	26.57	—	6.78	2950	11.03	-10	1.27	1415
2	1412	26.79	—	6.78	2950	11.01	-10	1.20	1414
3	1423	26.86	—	6.78	2950	11.00	-10	1.17	1410
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)
1	General (P, 250 mL)
1	P, 2.5L, HNO3

(5)

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

Final DTW: 26.69 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR20

Purge Method: Submersible

Date: 1/2/23 Start Time: 1426 Finish/Sample Time: 1455

Well Depth (Bottom) From MP: 57.55 ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 22.52 ft Total Purge Volume: 1.8 Gal / L

Water Column Length: 35.03 ft Max Drawdown: — ft

Well Water Volume: 21.19 Gal / L Total Drawdown: 0.01 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	1439	22.53	100	6.99	2650	10.37	-22	3.34	382
2	1440	22.53	100	6.98	2640	10.25	-25	3.20	379
3 JR	1441	22.53	100	6.97	2640	10.21	-27	3.11	401
4	1441								
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)
1	General (P, 250 mL)
1	2.5L HCl

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

Final DTW: 22.53 ft

Comments

Sampler's Signature: Joseph R. Reed

Duck Creek

WELL/SAMPLE POINT OM21

Purge Method: basin

Date: 1/12/2023 Start Time: 1246 Finish/Sample Time: 1536

Well Depth (Bottom) From MP: 60.55 ft 60.00 Min. Purge Volume: L Gal / L

Depth to Water From MP: 11.86 ft Total Purge Volume: 90 Gal / B

Water Column Length: 48.61 ft Max Drawdown: - ft

Well Water Volume: 29.40 Gal (1) Total Drawdown: 12.9 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	1504	13.05	-	6.67	3630	10.57	18	2.00	19.14
2	1513	13.59	-	6.67	3630	10.54	15	1.92	14.19
3	1524	13.94	-	6.65	3620	10.41	11	1.87	17.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	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	P, 2.5, HNO3

(5)

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

Final DTW: 13.15 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM22D

Purge Method: portable pump

Date: 1/10/2023 Start Time: 1229 Finish/Sample Time: 1356

Well Depth (Bottom) From MP: 65.01 ft ~~65.19~~ Min. Purge Volume: - Gal / L

Depth to Water From MP: 20.68 ft Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 44.33 ft Max Drawdown: - ft

Well Water Volume: 26.86 Gal ^① Total Drawdown: 0.04 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1304	20.71	100	6.72	4000	12.29	52	2.51	>1000 *
2	1306	20.71	100	6.72	4000	12.25	51	2.43	>1000 *
3	1308	20.71	100	6.72	4010	12.27	51	2.35	>1000 *
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, 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

⑤

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

Final DTW: 20.72 ft

Comments * Turbidity reads above 1000 NTU, Horiba only goes up to 1000 NTU

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM23D

Purge Method: bulk

Date: 1/12/2022 Start Time: 1155 Finish/Sample Time: 1308

Well Depth (Bottom) From MP: 82.91 ft 82.80 Min. Purge Volume: — Gal / L

Depth to Water From MP: 39.22 ft Total Purge Volume: 80 Gal / 0

Water Column Length: 43.58 ft Max Drawdown: — ft

Well Water Volume: 26.36 Gal / 0 Total Drawdown: 0.28 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	1221	39.90	—	6.83	1850	10.55	23	1.58	106
2	1239	40.11	—	6.83	1850	10.53	23	1.57	104
3	1258	39.85	—	6.83	1850	10.46	24	1.56	104
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)
1	General (P, 250 mL)
1	P, 2.5L, HNO3

(5)

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

Final DTW: 39.50 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM24D

Purge Method: portable pump

Date: 1/10/2023 Start Time: 1028 Finish/Sample Time: 1136

Well Depth (Bottom) From MP: 19.68 ft 19.69
 Depth to Water From MP: 4.01 ft
 Water Column Length: 15.68 ft
 Well Water Volume: 0.48 Gal U
 Min. Purge Volume: — Gal / L
 Total Purge Volume: 1000 Gal / L (ML)
 Max Drawdown: — ft
 Total Drawdown: 0.09 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	1048	4.10	100	6.44	3460	11.43	84	5.148	210
2	1050	4.10	100	6.51	3450	11.55	81	5.141	182
3	1051	4.09	100	6.52	3450	11.60	80	5.135	184
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)
1	General (P, 250mL, 1000mL)
1	(P, 2.5L, HNO3)

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

Final DTW: 4.10 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM25S

Purge Method: builow

Date: 1/16/2023 Start Time: 1142 Finish/Sample Time: 1217

Well Depth (Bottom) From MP: 63.97 ft Min. Purge Volume: — Gal / L

Depth to Water From MP: 57.98 ft Total Purge Volume: 4² Gal (L)

Water Column Length: 5.99 ft Max Drawdown: — ft

Well Water Volume: 3.62 Gal (L) Total Drawdown: 2.52 ft

APP 1/16/2023

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	1159	59.12	—	6.71	3320	12.64	143	7.43	284
2	1203	59.80	—	6.65	3780	12.74	149	1.85	1000
3									
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	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) 1000mL
1	P, 2.5L, HNO3

(5)

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

Comments

Only 1/2 well volume purged to save on water -
for samples due to history of poor recharge / reads taken over consecutive days
 due to running out of water A

Sampler's Signature: [Signature]

Final DTW: 60.50 ft

Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyle Leonard Joe Reed		Location: Duck Creek	
Weather: 36° Sunny		Environment: MUD	
Multiparameter Water Meter	Make: Hanna	Model: Hanna	Serial Number: U4U1FVTF
Water Level Meter	Make: Hanna	Model: Water tape	Serial Number: 19FF2202131ML

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	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.98	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)	2.25	µS/cm	0<25 µS/cm	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2.049	µS/cm	±5%	P	NA	NA	Geotech	2GE1442	May-23
ORP	2.28	mV	±15 mV	P	NA	NA	InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1	P	NA	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.46	%	97-100%	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.39	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?
pH 4.00b	4.08	s.u.	±0.15 s.u.	P	NA
pH 7.00b	7.03	s.u.	±0.15 s.u.	P	NA
pH 10.00b	9.89	s.u.	±0.15 s.u.	P	NA
SC 1000	1.078	µS/cm	±5%	P	NA

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 15:31				
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	L315-04	11/22/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NA	NA	MSI	L172-33	6/23/2023
pH 10.00a	9.94	s.u.	±0.1 s.u.	P	NA	NA	MSI	L354-22	1/5/2024
SC 1000	991	µS/cm	±5%	P	NA	NA	Ricca	2108D48	Jul-23
DO (Zero pt)	0.01	mg/L	±0.1 mg/L	P	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	1.48	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: 04:00				
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: *** Hanna, U52 (u)**

Signature: [Signature]	Date: 1-10-2023
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Multiparameter Meter Field Calibration Checklist

Field Personnel: KALEB DESKE			Location: DUCK CREEK		
Weather: 37° SUNNY WIND COMF E			Environment: PONDY. NO DUCKS. GRASSY		
Multiparameter Water Meter		Make: Hanna	Model: HORISTE 152	Serial Number: VFVDFVTF	
Water Level Meter		Make: Hanna	Model: APPROX	Serial Number: 11F2209 305 ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	Pass	NO	NA	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	10.06	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 1000	1998	µS/cm	±5%				Geotech	1GK328	Nov-22
ORP	241.00	mV	±15 mV				InSitu	1GL481	Sep-22
DO (Zero pt)	0.06	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	9.8 mg/L	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.02	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0926	
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer
pH 4.00b	4.01	s.u.	±0.15 s.u.	Pass	NO	Geotech
pH 7.00b	6.99	s.u.	±0.15 s.u.			Geotech
pH 10.00b	10.07	s.u.	±0.15 s.u.			Geotech
SC 1000	1003	µS/cm	±5%			Ricca

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1518				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.			NO	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	10.06	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000	998	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)	1.21	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: 01/10/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Amron Pemberton</u>				Location: <u>Duck Creek</u>			
Weather: <u>30-45°F Sunny w/ breeze</u>				Environment: <u>grass, dirt, mud</u>			
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>V-5000</u>	Serial Number: <u>YL9K59HA</u>			
Water Level Meter		Make: <u>Solinst</u>	Model: <u>101</u>	Serial Number: <u>252879</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>6.94</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>10.01</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>21.0</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>2080</u>	µS/cm	±5%	<u>P</u>	<u>No</u>	<u>N/A</u>	Geotech	1GK328	Nov-22
ORP	<u>235</u>	mV	±15 mV	<u>P</u>	<u>No</u>	<u>N/A</u>	InSitu	2GC827	Dec-22
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>—</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

241 @ 16°C

ICV (Initial Calibration Verification)						Time: <u>0942</u>	
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>3.91</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC243	Mar-24
pH 7.00b	<u>6.86</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>9.93</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24
SC 1000	<u>1040</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>1534</u>	
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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>No</u>	<u>N/A</u>	MSI	L315-04	11/22/2023
pH 7.00a	<u>7.06</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>10.02</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: <u> </u>	
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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>[Signature]</u>	Date: <u>1/10/2022</u>
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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: 19FF2202131ML

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	
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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	
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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:	
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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
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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

ICV (Initial Calibration Verification)					Time: <u>0859</u>		<u>24.9 @ 10°C</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	

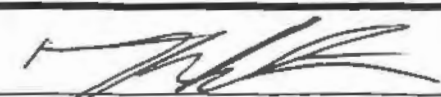
Approx. every 4 hrs, unless only one well

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>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: HALES 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: Dipnet	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
pH 4.00b	3.99	s.u.	±0.15 s.u.	Pass	N/A	Geotech
pH 7.00b	7.02	s.u.	±0.15 s.u.			Geotech
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech
SC 1000	1009	µS/cm	±5%			Ricca

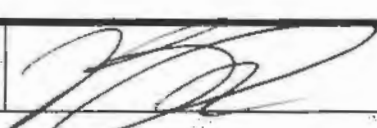
Approx. every 4 hrs, unless only one well

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	N/A	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
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>KALEB DESKE</u>		Location: <u>DUCK CREEK</u>	
Weather: <u>36° CLOUDS Wind 9 mph N</u>		Environment: <u>STILL NO DUCKS, AND I DONT SEE A CREEK</u>	
Multiparameter Water Meter	Make: <u>Horiba</u>	Model: <u>U52</u>	Serial Number: <u>PW2GYJD3</u>
Water Level Meter	Make: <u>Solinst</u>	Model: <u>101</u>	Serial Number: <u>252829</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>PASS</u>	<u>NO</u>	<u>N/A</u>	MSI	L315-04	11/22/2023
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>PASS</u>	<u>NO</u>	<u>N/A</u>	MSI	L172-33	6/23/2023
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>PASS</u>	<u>NO</u>	<u>N/A</u>	MSI	L354-22	1/5/2024
SC Zero (DI)	<u>13.20</u>	µS/cm	0<25 µS/cm	<u>PASS</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2006</u>	µS/cm	±5%	<u>PASS</u>	<u>NO</u>	<u>N/A</u>	Geotech	1GK328	Nov-22
ORP	<u>240</u>	mV	±15 mV	<u>PASS</u>	<u>NO</u>	<u>N/A</u>	InSitu	1GL481	Sep-22
DO (Zero pt)	<u>0.02</u>	mg/L	±0.1	<u>PASS</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)		%	97-100%	<u>PASS</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>10.20</u>	NTU	<2 NTU	<u>PASS</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>0846</u>
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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>PASS</u>	<u>NO</u>	Geotech	1GF009	Jun-23
pH 7.00b	<u>6.97</u>	s.u.	±0.15 s.u.	<u>PASS</u>	<u>NO</u>	Geotech	0GJ268	Oct-22
pH 10.00b	<u>9.98</u>	s.u.	±0.15 s.u.	<u>PASS</u>	<u>NO</u>	Geotech	1GF458	Jun-23
SC 1000	<u>1006</u>	µS/cm	±5%	<u>PASS</u>	<u>NO</u>	Ricca	2108D48	Jul-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1553</u>
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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>PASS</u>	<u>NO</u>	<u>N/A</u>	MSI	L315-04	11/22/2023
pH 7.00a	<u>7.06</u>	s.u.	±0.1 s.u.	<u>PASS</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>PASS</u>	<u>NO</u>	<u>N/A</u>	MSI	L354-22	1/5/2024
SC 1000	<u>1004</u>	µS/cm	±5%	<u>PASS</u>	<u>NO</u>	<u>N/A</u>	Ricca	2108D48	Jul-23
DO (Zero pt)	<u>0.07</u>	mg/L	±0.1 mg/L	<u>PASS</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.80</u>	NTU	<2 NTU	<u>PASS</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:
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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>[Signature]</u>	Date: <u>01/12/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>				Location: <u>Duck Creek</u>			
Weather: <u>36°-39° cloudy</u> <u>wind N 7 mph</u>				Environment: <u>woods, grass, sun</u>			
Multiparameter Water Meter		Make: <u>Horseshoe</u>	Model: <u>U-5000</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>20.0</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>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>00:43</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>10.40</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4205H64	May-24

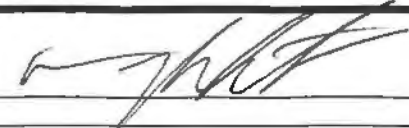
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>15:40</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>10.20</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>
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Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

April 10, 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



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order GA02003

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 GA02057

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 GA02366

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: GA02003-01
Name: BA06
Matrix: Ground Water - Grab

Sampled: 01/10/23 14:56

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.46	pCi/L			1	0.758	02/07/23 20:37		904.0 903.0
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Sample: GA02003-02
Name: OM12
Matrix: Ground Water - Grab

Sampled: 01/10/23 15:15

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.284 U	pCi/L			1	0.809	02/07/23 20:37		904.0 903.0
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Sample: GA02003-03
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 01/10/23 13:56

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.118 U	pCi/L			1	0.719	02/07/23 20:37		904.0 903.0
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Sample: GA02003-04
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 01/10/23 11:36

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.42	pCi/L			1	0.936	02/07/23 20:37		904.0 903.0
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ANALYTICAL RESULTS

Sample: GA02003-05
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 01/10/23 12:17

Received: 01/11/23 07:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	4.78	pCi/L			1	1.41	02/07/23 20:37		904.0 903.0
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Sample: GA02057-01
Name: OM01
Matrix: Ground Water - Grab

Sampled: 01/11/23 11:05

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.99	pCi/L			1	0.726	02/18/23 09:23		904.0 903.0
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Sample: GA02057-02
Name: OR02
Matrix: Ground Water - Grab

Sampled: 01/11/23 12:28

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.918	pCi/L			1	0.726	02/18/23 09:23		904.0 903.0
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Sample: GA02057-03
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 01/11/23 14:00

Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.95	pCi/L			1	0.704	02/18/23 09:23		904.0 903.0
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ANALYTICAL RESULTS

Sample: GA02057-04
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 01/11/23 15:32
Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	2.96	pCi/L			1	0.72	02/18/23 09:23		904.0 903.0
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Sample: GA02057-05
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 01/11/23 12:43
Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.495 J	pCi/L			1	0.689	02/18/23 09:23		904.0 903.0
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Sample: GA02057-06
Name: OM07
Matrix: Ground Water - Grab

Sampled: 01/11/23 13:59
Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.148 U	pCi/L			1	0.881	02/18/23 09:23		904.0 903.0
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Sample: GA02366-01
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 01/12/23 13:25
Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.331 J	pCi/L			1	0.69	02/15/23 20:19		904.0 903.0
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ANALYTICAL RESULTS

Sample: GA02366-02
Name: OM16
Matrix: Ground Water - Grab

Sampled: 01/12/23 11:19

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.664 J	pCi/L			1	1.37	02/15/23 20:19		904.0 903.0
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Sample: GA02366-03
Name: OM17
Matrix: Ground Water - Grab

Sampled: 01/12/23 10:09

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	4.57	pCi/L			1	1.08	02/15/23 20:19		904.0 903.0
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Sample: GA02366-04
Name: OM21
Matrix: Ground Water - Grab

Sampled: 01/12/23 15:36

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.316 J	pCi/L			1	0.731	02/15/23 20:19		904.0 903.0
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Sample: GA02366-05
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 01/12/23 13:08

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.864 J	pCi/L			1	0.986	02/15/23 20:19		904.0 903.0
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ANALYTICAL RESULTS

Sample: GA02366-06
Name: OR11
Matrix: Ground Water - Grab

Sampled: 01/12/23 14:25

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	8.04	pCi/L			1	1.15	02/21/23 13:37		904.0 903.0
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Sample: GA02366-07
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 01/12/23 10:29

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.37	pCi/L			1	0.744	02/15/23 20:19		904.0 903.0
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Sample: GA02366-08
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 01/12/23 11:21

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	3.63	pCi/L			1	1.55	02/15/23 20:19		904.0 903.0
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Sample: GA02366-09
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 01/12/23 12:20

Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.429 J	pCi/L			1	0.899	02/15/23 20:19		904.0 903.0
-----------------------------	---------	-------	--	--	---	-------	----------------	--	-------------



ANALYTICAL RESULTS

Sample: GA02366-10
Name: OR19
Matrix: Ground Water - Grab

Sampled: 01/12/23 14:34
Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.49	pCi/L			1	0.669	02/15/23 20:19		904.0 903.0
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Sample: GA02366-11
Name: OR20
Matrix: Ground Water - Grab

Sampled: 01/12/23 14:55
Received: 01/13/23 07:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.694 J	pCi/L			1	0.864	02/15/23 20:19		904.0 903.0
-----------------------------	---------	-------	--	--	---	-------	----------------	--	-------------



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
-----------	--------	------	------	----------------	------------------	------	----------------	-----	--------------



NOTES

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

Revised Report - corrected radium result for OR06A.

* 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



Certified by: Gail Schindler, Project Manager



ANALYTICAL REPORT

February 15, 2023

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1577948
Samples Received: 01/20/2023
Project Number: GA02003
Description: VISTRA-DUCK CREEK
Site: 001
Report To: Christina Pierce

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GA02003

SDG:
L1577948

DATE/TIME:
02/15/23 08:59

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PAGE

1 of 16

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SAMPLE SUMMARY

BA06 L1577948-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/10/23 14:56 01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1997121	1	01/31/23 17:32	02/07/23 20:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/07/23 20:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

OM12 L1577948-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/10/23 15:15 01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1997121	1	01/31/23 17:32	02/07/23 20:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/07/23 20:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

OM22D L1577948-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/10/23 13:56 01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1997121	1	01/31/23 17:32	02/07/23 20:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/07/23 20:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

OM24D L1577948-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/10/23 11:36 01/20/23 10:15

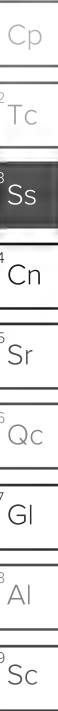
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1997121	1	01/31/23 17:32	02/07/23 20:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/07/23 20:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

OM25S L1577948-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

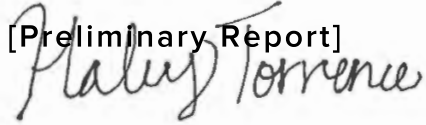
01/10/23 12:17 01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1997121	1	01/31/23 17:32	02/07/23 20:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/07/23 20:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

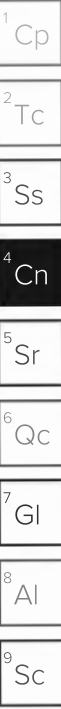


CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.366	U	0.388	0.700	02/07/2023 20:37	WG1997121
(T) Barium	93.3			30.0-143	02/07/2023 20:37	WG1997121
(T) Yttrium	105			30.0-136	02/07/2023 20:37	WG1997121

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.46		0.615	0.758	02/07/2023 20:37	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.46		0.477	0.292	02/02/2023 17:10	WG1993264
(T) Barium-133	107			30.0-143	02/02/2023 17:10	WG1993264

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0662	U	0.428	0.758	02/07/2023 20:37	WG1997121
(T) Barium	88.8			30.0-143	02/07/2023 20:37	WG1997121
(T) Yttrium	106			30.0-136	02/07/2023 20:37	WG1997121

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.284	U	0.480	0.809	02/07/2023 20:37	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.218	J	0.218	0.283	02/02/2023 17:10	WG1993264
(T) Barium-133	99.6			30.0-143	02/02/2023 17:10	WG1993264

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.270	U	0.371	0.669	02/07/2023 20:37	WG1997121
(T) Barium	93.2			30.0-143	02/07/2023 20:37	WG1997121
(T) Yttrium	103			30.0-136	02/07/2023 20:37	WG1997121

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.118	U	0.410	0.719	02/07/2023 20:37	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.118	J	0.175	0.263	02/02/2023 17:10	WG1993264
(T) Barium-133	95.7			30.0-143	02/02/2023 17:10	WG1993264

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.30		0.522	0.892	02/07/2023 20:37	WG1997121
(T) Barium	59.7			30.0-143	02/07/2023 20:37	WG1997121
(T) Yttrium	108			30.0-136	02/07/2023 20:37	WG1997121

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.42		0.555	0.936	02/07/2023 20:37	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.120	J	0.189	0.285	02/02/2023 17:10	WG1993264
(T) Barium-133	92.2			30.0-143	02/02/2023 17:10	WG1993264

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	3.83		0.847	1.39	02/07/2023 20:37	WG1997121
(T) Barium	62.7			30.0-143	02/07/2023 20:37	WG1997121
(T) Yttrium	107			30.0-136	02/07/2023 20:37	WG1997121

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	4.78		0.928	1.41	02/07/2023 20:37	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.948		0.378	0.241	02/02/2023 17:10	WG1993264
(T) Barium-133	92.2			30.0-143	02/02/2023 17:10	WG1993264

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3888837-1 02/07/23 20:37

Analyte	MB Result pCi/l	MB Qualifier + / -	MB Uncertainty	MB MDA pCi/l
Radium-228	0.123	⬇	0.194	0.344
(T) Barium	103		103	
(T) Yttrium	101		101	

L1576645-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1576645-01 02/07/23 20:37 • (DUP) R3888837-5 02/07/23 20:37

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.509	0.317	0.548	0.367	0.360	0.548	1	32.3	0.295	⬇	20	3
(T) Barium	108			110	110							
(T) Yttrium	105			104	104							

Laboratory Control Sample (LCS)

(LCS) R3888837-2 02/07/23 20:37

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.69	93.8	80.0-120	
(T) Barium			106		
(T) Yttrium			96.4		

L1576633-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1576633-06 02/07/23 20:37 • (MS) R3888837-3 02/07/23 20:37 • (MSD) R3888837-4 02/07/23 20:37

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	2.29	11.6	12.9	93.4	106	1	70.0-130			9.97		20
(T) Barium		98.3			91.2	86.8							
(T) Yttrium		103			107	102							

Method Blank (MB)

(MB) R3891297-1 02/02/23 17:10

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty +/-	MB MDA pCi/l
Radium-226	0.0244	⬇	0.0459	0.0729
(T) Barium-133	91.3		91.3	

L1577953-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1577953-05 02/02/23 17:10 • (DUP) R3891297-4 02/02/23 17:10

Analyte	Original Result pCi/l	Original Uncertainty +/-	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty +/-	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.148	0.138	0.143	0.0986	0.170	0.143	1	40.4	0.228	⬇	20	3
(T) Barium-133	103			99.9	99.9							

Laboratory Control Sample (LCS)

(LCS) R3891297-2 02/02/23 17:10

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	4.63	92.3	80.0-120	
(T) Barium-133			94.3		

L1577948-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1577948-04 02/02/23 17:10 • (MS) R3891297-5 02/02/23 22:31 • (MSD) R3891297-3 02/02/23 17:10

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.120	17.6	19.2	87.4	95.3	1	75.0-125			8.54		20
(T) Barium-133		92.2			96.6	103							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier Description

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

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

ACCREDITATIONS & LOCATIONS

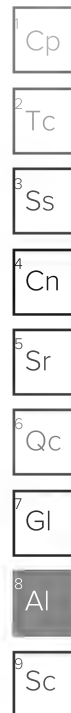
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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



Internal Transfer Chain of Custody

H163

State of Origin: IL
Cert. Needed: ☒ YES ☐ NO

Results Required By: 2/14/2023

Owner Received Date: 1/16/2023

Workorder Name: VISTRA - DUCK CREEK
Subcontract To:

Report To: Gail Schindler

Pace Analytical - IL/MO
2231 W. Altorfer Drive
Peoria, IL 61615
800-752-6651Pace Analytical Services, LLC
12065 Lebanon Rd
Mt Juliet, TN
(615)758-5858

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Radium 226/228	LAB USE ONLY
1	BA06	GRAB	1/10/2023 14:56	GA02003-01	GW		X	-01
2	OM12	GRAB	1/10/2023 15:15	GA02003-02	GW		X	-02
3	OM22D	GRAB	1/10/2023 13:56	GA02003-03	GW		X	-03
4	OM24D	GRAB	1/10/2023 11:36	GA02003-04	GW		X	-04
5	OM25S	GRAB	1/10/2023 12:17	GA02003-05	GW		X	-05
6								
7								
8								
9								
10								
Transfers	Released By	Date/Time	Received By	Date/Time	Comments			
1	EMR	1/18/23 0301	gail schindler	1/20/23 10:15	# of containers: 5			
2					Trip Blanks: No			
3								

Cooler Temperature on Receipt _____ °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Receipt Checklist

COC Seal Present/Intact:	Y	N	If Applicable	Y	N
COC Signed/Accurate:	Y	N	VOA Zero Headspace:	Y	N
Bottles arrive intact:	Y	N	Pres. Correct/Check:	Y	N
Correct bottles used:	Y	N			
Sufficient volume sent:	Y	N			
RAD Screen <0.5 mR/hr:	Y	N			



Ship to :
 Pace Analytical Services, LLC
 12065 Lebanon Rd
 Mt Juliet, TN 37122

(615)758-5858

U577948

INTER LABORATORY WORK ORDER # GA02003

(To be complete by sending lab)

Sending Project No:	GA02003	
Receiving Project No:		
Check Box for Consolidated Invoice:	☐	☐
Date Prepared:	1/17/2023	
REQUESTED COMPLETION DATE:	2/14/2023	

Sending Region	IR72-IL/MO	Sending Project Mgr.	Margie Nobiling
Receiving Region	IR80-NATIONAL	External Client	Collinsville
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

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

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		1		5	\$242.10	\$1,210.50
						\$0.00
						\$0.00
TOTAL						\$1,210.50

Special Requirements: _____

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$1,210.50	\$968.40	\$242.10
* Custom Revenue Allocation		TOTAL	\$968.40	\$242.10

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

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

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

U577948

<u>Tracking</u> <u>Numbers</u>	<u>Temperature</u>
12 647 29603 6966 6322	DRA2 $1.07 + 0 = 1.07$
12 647 29603 7098 3914	DRA2 $9.6 + 0 = 9.6$
12 647 29603 6913 8330	DRA2 $9.9 + 0 = 9.9$



ANALYTICAL REPORT

March 29, 2023

Revised Report

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1577953
Samples Received: 01/20/2023
Project Number: GA02057
Description: VISTRA-DUCK CREEK
Site: 001
Report To: Christina Pierce

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GA02057

SDG:
L1577953

DATE/TIME:
03/29/23 08:27

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PAGE
1 of 19

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OR02 L1577953-02	6	4 Cn
OR03D L1577953-03	7	
OR04D L1577953-04	8	5 Sr
OM07 L1577953-05	9	
OR06A L1577953-06	10	6 Qc
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SAMPLE SUMMARY

OM01 L1577953-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/11/23 11:05 01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999124	1	02/15/23 17:51	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

OR02 L1577953-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/11/23 12:28 01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999124	1	02/15/23 17:51	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

OR03D L1577953-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/11/23 14:00 01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999124	1	02/15/23 17:51	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

OR04D L1577953-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/11/23 15:32 01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999124	1	02/15/23 17:51	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

OM07 L1577953-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/11/23 13:59 01/20/23 10:15

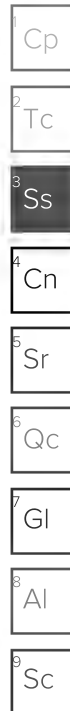
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999124	1	02/15/23 17:51	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN

OR06A L1577953-06 Non-Potable Water

Collected by
Collected date/time
Received date/time

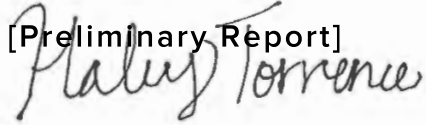
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999124	1	02/15/23 17:51	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993264	1	01/30/23 15:06	02/18/23 09:23	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993264	1	01/30/23 15:06	02/02/23 17:10	RGT	Mt. Juliet, TN



CASE NARRATIVE

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

[Preliminary Report]


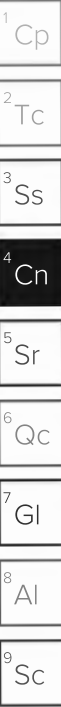
Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 02/21/23 13:48

Project Narrative

Sample IDs



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.92		0.404	0.702	02/18/2023 09:23	WG1999124
(T) Barium	105			30.0-143	02/18/2023 09:23	WG1999124
(T) Yttrium	98.0			30.0-136	02/18/2023 09:23	WG1999124

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.99		0.420	0.726	02/18/2023 09:23	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0660	U	0.115	0.187	02/02/2023 17:10	WG1993264
(T) Barium-133	93.7			30.0-143	02/02/2023 17:10	WG1993264

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.924	U	0.366	0.712	02/18/2023 09:23	WG1999124
(T) Barium	98.5			30.0-143	02/18/2023 09:23	WG1999124
(T) Yttrium	101			30.0-136	02/18/2023 09:23	WG1999124

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.918		0.494	0.726	02/18/2023 09:23	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.918		0.332	0.142	02/02/2023 17:10	WG1993264
(T) Barium-133	98.1			30.0-143	02/02/2023 17:10	WG1993264

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.54		0.380	0.667	02/18/2023 09:23	WG1999124
(T) Barium	96.5			30.0-143	02/18/2023 09:23	WG1999124
(T) Yttrium	111			30.0-136	02/18/2023 09:23	WG1999124

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.95		0.455	0.704	02/18/2023 09:23	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.411		0.251	0.226	02/02/2023 17:10	WG1993264
(T) Barium-133	98.1			30.0-143	02/02/2023 17:10	WG1993264

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.49		0.413	0.696	02/18/2023 09:23	WG1999124
(T) Barium	96.9			30.0-143	02/18/2023 09:23	WG1999124
(T) Yttrium	111			30.0-136	02/18/2023 09:23	WG1999124

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.96		0.477	0.720	02/18/2023 09:23	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.474		0.238	0.184	02/02/2023 17:10	WG1993264
(T) Barium-133	103			30.0-143	02/02/2023 17:10	WG1993264

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.192	U	0.464	0.869	02/18/2023 09:23	WG1999124
(T) Barium	102			30.0-143	02/18/2023 09:23	WG1999124
(T) Yttrium	114			30.0-136	02/18/2023 09:23	WG1999124

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.148	U	0.484	0.881	02/18/2023 09:23	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.148		0.138	0.143	02/02/2023 17:10	WG1993264
(T) Barium-133	103			30.0-143	02/02/2023 17:10	WG1993264

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.160	U	0.341	0.649	02/18/2023 09:23	WG1999124
(T) Barium	93.1			30.0-143	02/18/2023 09:23	WG1999124
(T) Yttrium	115			30.0-136	02/18/2023 09:23	WG1999124

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.495	J	0.436	0.689	02/18/2023 09:23	WG1993264

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.495		0.272	0.232	02/02/2023 17:10	WG1993264
(T) Barium-133	95.9			30.0-143	02/02/2023 17:10	WG1993264

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R3893002-1 02/18/23 09:23

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.329	J	0.227	0.416
(T) Barium	104		104	
(T) Yttrium	112		112	

L1575717-25 Original Sample (OS) • Duplicate (DUP)

(OS) L1575717-25 02/18/23 09:23 • (DUP) R3893002-3 02/18/23 09:23

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.211	0.479	0.890	0.684	0.520	0.890	1	106	0.668	J	20	3
(T) Barium	82.5			77.4	77.4							
(T) Yttrium	110			107	107							

Laboratory Control Sample (LCS)

(LCS) R3893002-2 02/18/23 09:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.08	81.7	80.0-120	
(T) Barium			119		
(T) Yttrium			118		

L1575717-37 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1575717-37 02/20/23 16:08 • (MS) R3893002-4 02/20/23 16:08 • (MSD) R3893002-5 02/20/23 16:08

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	4.60	11.7	11.2	70.7	65.8	1	70.0-130		J6	4.29		20
(T) Barium		92.3			89.1	86.0							
(T) Yttrium		116			114	108							

Method Blank (MB)

(MB) R3891297-1 02/02/23 17:10

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty +/-	MB MDA pCi/l
Radium-226	0.0244	⬇	0.0459	0.0729
(T) Barium-133	91.3		91.3	

L1577953-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1577953-05 02/02/23 17:10 • (DUP) R3891297-4 02/02/23 17:10

Analyte	Original Result pCi/l	Original Uncertainty +/-	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty +/-	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.148	0.138	0.143	0.0986	0.170	0.143	1	40.4	0.228	⬇	20	3
(T) Barium-133	103			99.9	99.9							

Laboratory Control Sample (LCS)

(LCS) R3891297-2 02/02/23 17:10

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	4.63	92.3	80.0-120	
(T) Barium-133			94.3		

L1577948-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1577948-04 02/02/23 17:10 • (MS) R3891297-5 02/02/23 22:31 • (MSD) R3891297-3 02/02/23 17:10

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.120	17.6	19.2	87.4	95.3	1	75.0-125			8.54		20
(T) Barium-133		92.2			96.6	103							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

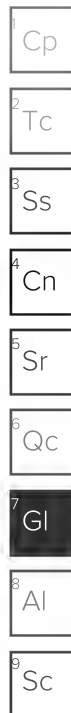
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
U	Below Detectable Limits: Indicates that the analyte was not detected.



ACCREDITATIONS & LOCATIONS

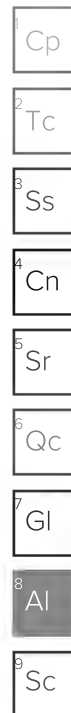
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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



Internal Transfer Chain of Custody

H165

Date of Origin: IL
Cert. Needed: ☒ YES ☐ NOPace Analytical
www.paceanalytical.comOwner Received
Date: 1/11/2023 By: 2/14/2023Workorder Name: VISTRA - DUCK CREEK
Subcontract To:Pace Analytical Services, LLC
12065 Lebanon Rd
Mt Juliet, TN
(615)758-5858Gail Schindler
Pace Analytical - IL/MO
2231 W. Altorfer Drive
Peoria, IL 61615
800-752-6651

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Radium 226/228	Date/Time	Received By	Date/Time	Comments
1	OM01	GRAB	1/11/2023 11:05	GA02057-01	GW		X				
2	OR02	GRAB	1/11/2023 12:28	GA02057-02	GW		X				
3	OR03D	GRAB	1/11/2023 14:00	GA02057-03	GW		X				
4	OR04D	GRAB	1/11/2023 15:32	GA02057-04	GW		X				
5	OM07	GRAB	1/11/2023 13:59	GA02057-06	GW		X				
6											
7											
8											
9											
10											
Transfers	Released By										
1											
2											
3											

1577953

LAB USE ONLY

-01
-02
-03
-04
-05# of containers: 6
Trip Blanks: NO

Cooler Temperature on Receipt _____ °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Receipt Checklist

COC Seal Present/Intact:	☒ Y ☐ N	If Applicable
COC Signed/Accurate:	☒ Y ☐ N	VOA Zero Headspace:
Bottles arrive intact:	☒ Y ☐ N	Pres. Correct/Check:
Correct bottles used:	☒ Y ☐ N	
Sufficient volume sent:	☒ Y ☐ N	
RAD Screen <0.5 mB/hr:	☒ Y ☐ N	



Ship to :
Pace Analytical Services, LLC
12065 Lebanon Rd
Mt Juliet, TN 37122

(615)758-5858

INTER_LABORATORY WORK ORDER # GA02057

(To be complete by sending lab)

Sending Project No:	GA02057
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	1/17/2023
REQUESTED COMPLETION DATE:	2/14/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	IR80-NATIONAL	External Client	VISTRA - DUCK CREEK
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

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

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		1		5	\$242.10	\$1,210.50
						\$0.00
						\$0.00
TOTAL						\$1,210.50

Special Requirements: _____

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$1,210.50	\$968.40	\$242.10
* Custom Revenue Allocation		TOTAL	\$968.40	\$242.10

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

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

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

L1577953

Tracking Numbers		Temperature
12 6472 9603 6466 6322		DRA2 1.07 to 1.07
12 6472 9603 7099 3914		DRA2 9.6 to 9.6
12 6472 9603 6913 8330		DRA2 9.9 to 9.9

H165

State of Origin: IL ☒ YES ☐ NO
 Cert. Needed: ☒ YES ☐ NO

Owner Received	Results Required
Date: 1/11/2023	Syn: 2/14/2023

Workorder: GA02057	Workorder Name: VISTRA - DUCK CREEK
Report for	Subcontractor T...

Gail Schindler
Pace Analytical - IL/MO
2231 W. Altorfer Drive
Peoria, IL 61615
800-752-6651

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Radium 226	Comments
1	01A01	GRAB	1/11/2023 11:05	GA02057-01	GW	X	
2	01B02	GRAB	1/11/2023 12:28	GA02057-02	GW	X	
3	01B03	GRAB	1/11/2023 14:00	GA02057-03	GW	X	
4	01B04	GRAB	1/11/2023 15:32	GA02057-04	GW	X	
5	01A07	GRAB	1/11/2023 13:59	GA02057-06	GW	X	
6	01B06A	GRAB	1/11/2023 12:43	GA02057-05	GW	X	
7							
8							
9							
10							
Transfers	Released By	Date/Time	Received By	Date/Time	Comments		
1		1/12/23 12:01	John Doe	1-20-23 15:15	Am # of containers: 6		
2					Truck blank: 0.0		
3							

Cooler Temperature on Receipt	____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	---------	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002 rev 00 24 March 2009

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[illegible]

1/20-NCF-L1577953 PACEPIL

R5

Time estimate: oh

Time spent: oh

Members



Hailey Melson (responsible)



Haley Torrence

Due on 24 January 2023 8:00 AM for target Done

- ☐ Login Clarification needed
- ☐ Chain of custody is incomplete
- ☐ Please specify Metals requested
- ☐ Please specify TCLP requested
- ☒ Received additional samples not listed on COC
- ☐ Sample IDs on containers do not match IDs on COC
- ☐ Client did not "X" analysis
- ☐ Chain of Custody is missing
- ☐ If no COC: Received by: _____
- ☐ If no COC: Date/Time: _____
- ☐ If no COC: Temp./Cont.Rec./pH: _____
- ☐ If no COC: Carrier: _____
- ☐ If no COC: Tracking #: _____
- ☐ Client informed by call
- ☐ Client informed by Email
- ☐ Client informed by Voicemail
- ☐ Date/Time: _____
- ☐ PM initials: _____
- ☐ Client Contact: _____

Comments

Hailey Melson

20 January 2023 4:36 PM

Received ID: ORO6A Lab ID: GAO2057-05A not listed on the COC.

Haley Torrence

23 January 2023 11:31 AM

PACEPIL notified 1/23

Haley Torrence

23 January 2023 12:20 PM

Revised COC attached. Please log for all analyses. Thanks!

Hailey Melson

24 January 2023 7:55 AM

Done



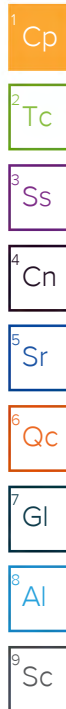
ANALYTICAL REPORT

March 29, 2023

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group: L1577951
Samples Received: 01/20/2023
Project Number: GA02366
Description: VISTRA-DUCK CREEK
Site: 001
Report To: Christina Pierce



Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GA02366

SDG:
L1577951

DATE/TIME:
03/29/23 08:39

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OM16 L1577951-02	7	4 Cn
OM17 L1577951-03	8	5 Sr
OM21 L1577951-04	9	
OM23D L1577951-05	10	6 Qc
OR11 L1577951-06	11	
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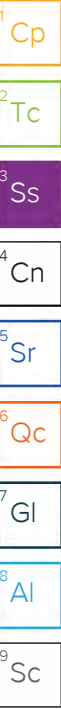
SAMPLE SUMMARY

OM04S L1577951-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 13:25
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN



OM16 L1577951-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 11:19
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

OM17 L1577951-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 10:09
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/21/23 13:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/21/23 13:37	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

OM21 L1577951-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 15:39
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

OM23D L1577951-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 13:08
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

OR11 L1577951-06 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 14:25
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/21/23 13:37	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/21/23 13:37	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

OR13D L1577951-07 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 10:29
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

OR13S L1577951-08 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 11:21
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

OR14D L1577951-09 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 12:20
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

OR19 L1577951-10 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 14:34
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

OR20 L1577951-11 Non-Potable Water

Collected by
Collected date/time
Received date/time

01/12/23 14:55
01/20/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1999123	1	02/09/23 22:42	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1993876	1	01/26/23 16:06	02/15/23 20:19	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1993876	1	01/26/23 16:06	01/27/23 17:51	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]

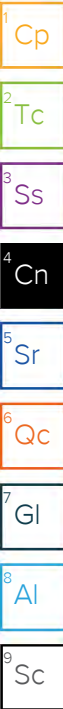

Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 02/23/23 11:26

Project Narrative

Sample IDs



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0627	U	0.358	0.634	02/15/2023 20:19	WG1999123
(T) Barium	97.2			30.0-143	02/15/2023 20:19	WG1999123
(T) Yttrium	105			30.0-136	02/15/2023 20:19	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.331	J	0.441	0.690	02/15/2023 20:19	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.331	J6	0.257	0.273	01/27/2023 17:51	WG1993876
(T) Barium-133	81.3			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-2.30	U	0.743	1.35	02/15/2023 20:19	WG1999123
(T) Barium	101			30.0-143	02/15/2023 20:19	WG1999123
(T) Yttrium	94.5			30.0-136	02/15/2023 20:19	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.664	J	0.807	1.37	02/15/2023 20:19	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.664		0.314	0.231	01/27/2023 17:51	WG1993876
(T) Barium-133	79.8			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.26		0.618	1.07	02/21/2023 13:37	WG1999123
(T) Barium	92.3			30.0-143	02/21/2023 13:37	WG1999123
(T) Yttrium	113			30.0-136	02/21/2023 13:37	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	4.57		0.843	1.08	02/21/2023 13:37	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	2.31		0.573	0.170	01/27/2023 17:51	WG1993876
(T) Barium-133	84.1			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.243	U	0.389	0.674	02/15/2023 20:19	WG1999123
(T) Barium	87.3			30.0-143	02/15/2023 20:19	WG1999123
(T) Yttrium	102			30.0-136	02/15/2023 20:19	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.316	J	0.422	0.731	02/15/2023 20:19	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0735	U	0.164	0.284	01/27/2023 17:51	WG1993876
(T) Barium-133	78.6			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.644	J	0.544	0.927	02/15/2023 20:19	WG1999123
(T) Barium	85.4			30.0-143	02/15/2023 20:19	WG1999123
(T) Yttrium	101			30.0-136	02/15/2023 20:19	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.864	J	0.598	0.986	02/15/2023 20:19	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.220	J	0.248	0.337	01/27/2023 17:51	WG1993876
(T) Barium-133	92.5			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	5.83		0.701	1.11	02/21/2023 13:37	WG1999123
(T) Barium	96.5			30.0-143	02/21/2023 13:37	WG1999123
(T) Yttrium	95.2			30.0-136	02/21/2023 13:37	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	8.04		0.945	1.15	02/21/2023 13:37	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	2.20		0.633	0.314	01/27/2023 17:51	WG1993876
(T) Barium-133	80.8			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.15		0.422	0.705	02/15/2023 20:19	WG1999123
(T) Barium	94.6			30.0-143	02/15/2023 20:19	WG1999123
(T) Yttrium	103			30.0-136	02/15/2023 20:19	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.37		0.470	0.744	02/15/2023 20:19	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.222	J	0.207	0.238	01/27/2023 17:51	WG1993876
(T) Barium-133	88.5			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.59		0.901	1.50	02/15/2023 20:19	WG1999123
(T) Barium	85.4			30.0-143	02/15/2023 20:19	WG1999123
(T) Yttrium	93.3			30.0-136	02/15/2023 20:19	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	3.63		1.02	1.55	02/15/2023 20:19	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.03		0.469	0.402	01/27/2023 17:51	WG1993876
(T) Barium-133	73.5			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.138	U	0.498	0.863	02/15/2023 20:19	WG1999123
(T) Barium	92.4			30.0-143	02/15/2023 20:19	WG1999123
(T) Yttrium	104			30.0-136	02/15/2023 20:19	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.429	J	0.551	0.899	02/15/2023 20:19	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.291		0.235	0.252	01/27/2023 17:51	WG1993876
(T) Barium-133	88.1			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.17		0.354	0.585	02/15/2023 20:19	WG1999123
(T) Barium	91.9			30.0-143	02/15/2023 20:19	WG1999123
(T) Yttrium	104			30.0-136	02/15/2023 20:19	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.49		0.446	0.669	02/15/2023 20:19	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.326		0.272	0.325	01/27/2023 17:51	WG1993876
(T) Barium-133	81.8			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.530	J	0.495	0.846	02/15/2023 20:19	WG1999123
(T) Barium	96.9			30.0-143	02/15/2023 20:19	WG1999123
(T) Yttrium	97.0			30.0-136	02/15/2023 20:19	WG1999123

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.694	J	0.518	0.864	02/15/2023 20:19	WG1993876

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.164	J	0.153	0.176	01/27/2023 17:51	WG1993876
(T) Barium-133	92.3			30.0-143	01/27/2023 17:51	WG1993876

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3891709-1 02/15/23 20:19

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.00792	U	0.207	0.363
(T) Barium	108		108	
(T) Yttrium	95.4		95.4	

L1577951-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1577951-07 02/15/23 20:19 • (DUP) R3891709-5 02/15/23 20:19

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.15	0.422	0.705	0.945	0.358	0.705	1	19.3	0.366		20	3
(T) Barium	94.6			100	100							
(T) Yttrium	103			92.7	92.7							

Laboratory Control Sample (LCS)

(LCS) R3891709-2 02/15/23 20:19

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.31	106	80.0-120	
(T) Barium			95.6		
(T) Yttrium			98.3		

L1575717-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1575717-19 02/15/23 20:19 • (MS) R3891709-3 02/15/23 20:19 • (MSD) R3891709-4 02/15/23 20:19

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.60	10.4	10.8	87.6	92.3	1	70.0-130			4.44		20
(T) Barium		104			103	95.0							
(T) Yttrium		102			94.0	96.9							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R3886239-1 01/27/23 17:51

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	-0.00851	U	0.0457	0.0961
(T) Barium-133	75.6		75.6	

L1577951-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1577951-11 01/27/23 17:51 • (DUP) R3886239-5 01/27/23 17:51

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.164	0.153	0.176	0.171	0.210	0.176	1	4.13	0.0266	J	20	3
(T) Barium-133	92.3			85.7	85.7							

Laboratory Control Sample (LCS)

(LCS) R3886239-2 01/27/23 17:51

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	4.74	94.3	80.0-120	
(T) Barium-133			64.8		

L1577951-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1577951-01 01/27/23 17:51 • (MS) R3886239-3 01/27/23 17:51 • (MSD) R3886239-4 01/27/23 17:51

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.331	12.3	11.7	60.0	56.7	1	75.0-125	J6	J6	5.50		20
(T) Barium-133		81.3			88.9	85.6							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

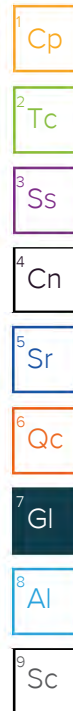
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
U	Below Detectable Limits: Indicates that the analyte was not detected.



ACCREDITATIONS & LOCATIONS

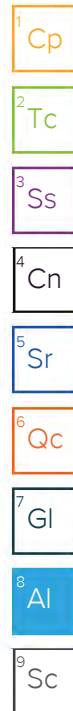
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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



Internal Transfer Chain of Custody

H164

State of Origin: IL

Cert. Needed: ☒ YES ☐ NOPace Analytical
www.paceanals.com

Owner Received

Results Required

Workorder: GA02366

Workorder Name: VISTRA - DUCK CREEK

Date: 1/13/2023

By: 2/14/2023

Report To:

Subcontract To:

Requested Analysis

Gail Schindler

Pace Analytical - IL/MO

2231 W. Altorfer Drive

Peoria, IL 61615

800-752-6651

Pace Analytical Services, LLC

12065 Lebanon Rd

Mt Juliet, TN

(615)758-5858

Preserved Containers

Radium 226/228

L157951

LAB USE ONLY

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix															
1	OM045	GRAB	1/12/2023 13:25	GA02366-01	GW															
2	OM16	GRAB	1/12/2023 11:19	GA02366-02	GW															
3	OM17	GRAB	1/12/2023 10:09	GA02366-03	GW															
4	OM21	GRAB	1/12/2023 15:39	GA02366-04	GW															
5	OM23D	GRAB	1/12/2023 13:08	GA02366-05	GW															
6	OR11	GRAB	1/12/2023 14:25	GA02366-06	GW															
7	OR13D	GRAB	1/12/2023 10:29	GA02366-07	GW															
8	OR13S	GRAB	1/12/2023 11:21	GA02366-08	GW															
9	OR14D	GRAB	1/12/2023 12:20	GA02366-09	GW															
10	OR19	GRAB	1/12/2023 14:34	GA02366-10	GW															
11	OR20	GRAB	1/12/2023 14:55	GA02366-11	GW															

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	<i>E. H. H. H.</i>	1/12/23 0801	<i>J. H. H. H.</i>	1-20-23 1615	# of containers: 11
2					Trip Blank: No
3					

Cooler Temperature on Receipt	°C	Custody Seal ☒ Y or N	Received on Ice ☒ Y or N	Sample Intact ☒ Y or N
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***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N If Applicable
 COC Signed/Accurate: ☒ Y ☐ N VOA Zero Headspace: ☒ Y ☐ N
 Bottles arrive intact: ☒ Y ☐ N Pres. Correct/Check: ☒ Y ☐ N
 Correct bottles used: ☒ Y ☐ N
 Sufficient volume sent: ☒ Y ☐ N
 RAD Screen <0.5 mR/hr: ☒ Y ☐ N



(615) 758-5858

(To be complete by sending lab)

Sending Project No:	GA02366
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	1/17/2023
REQUESTED COMPLETION DATE:	2/14/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	IR80-NATIONAL	External Client	VISTRA - DUCK CREEK
State of Sample Origin	IL	QC Deliverable	STD Report

All questions should be addressed to sending project manager.

Requested Reportable Units

Report Wet or Dry Weight?

Cert Needed:

11

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226/228		1		11	\$242.10	\$2,663.10
						\$0.00
						\$0.00
TOTAL						\$2,663.10

Special Requirements:

Receiving Region Department	Actg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$2,663.10	\$2,130.48	\$532.62
		TOTAL	\$2,130.48	\$532.62
* Custom Revenue Allocation				

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region:

100

Yes

X

No

CONFIRMATION OF WORK COMPLETED

Date Completed:

Receiving Project Manager:

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

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

VP5

L1577951

Tracking Numbers	Temperature
1264729603606 6322	RA2 1.07+0=1.07
12647296037098 3913	RA2 9.6+0=9.6
12647296036013 8330	RA2 9.9+0=9.9

GA02003-05

GA01700-20

Page: 1 of 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:		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 #:	

Section D Required Client Information		Valid Matrix Codes		COLLECTED		Preservatives		Requested Analysis Filtered (Y/N)		Project No. / Lab I.D.										
#	ITEM #	MATRIX CODE	DATE	TIME	SAMPLE TYPE (G=GRAB C=COMP)	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	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.
1	BA01	DRINKING WATER	1/10/23	1216	WTG		2	X	X	X	X	X	X	X	X	X	X	X		
2	BA02	WASTE WATER	1/10/23	1315	WTG		2	X	X	X	X	X	X	X	X	X	X	X		
3	BA02L	WASTE WATER PRODUCT	1/10/23	1246	WTG		2	X	X	X	X	X	X	X	X	X	X	X		
4	BA03	SOIL/SOLID	1/10/23	1109	WTG		2	X	X	X	X	X	X	X	X	X	X	X		
5	BA03L	OIL	1/10/23	1141	WTG		2	X	X	X	X	X	X	X	X	X	X	X		
6	BA04	WASTE WATER	1/10/23	1033	WTG		2	X	X	X	X	X	X	X	X	X	X	X		
7	BA05	WASTE WATER	1/10/23	1359	WTG		2	X	X	X	X	X	X	X	X	X	X	X		
8	BA06	WASTE WATER	1/10/23	1456	WTG		4	X	X	X	X	X	X	X	X	X	X	X		
9	G02S	OTHER																		
10	G04S	OTHER																		
11	G06L	OTHER																		
12	G06S	OTHER																		
13	G07L	OTHER																		
14	G08L	OTHER																		
15	G09L	OTHER																		
16	G09S	OTHER																		

Section E Additional Comments		Section F Relinquished By / Affiliation		Section G Date		Section H Time		Section I Accepted By / Affiliation		Section J Date		Section K Time		Section L Sample Conditions		Section M Temp in °C		Section N Received on		Section O Ice (Y/N)		Section P Custody Sealed Cooler (Y/N)		Section Q Samples Intact (Y/N)	
DC-Q1-2023 Rev 2		[Signature]		1/10/23		[Signature]		[Signature]		1-11-23		700		0.9		Y		Y		N		Y		Y	

Courier

BA02056-20

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 7

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: **2265**

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
 STATE: **IL**

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	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	MATRIX	CODE	DRINKING WATER	DW			WASTE WATER	WW			PRODUCT	PL	SOIL/SOLID	SL	CL	WPE	WP	AIR	OT	TS		Analysis Test ↑	Y	N	↓	Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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GA02056-20

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 of 7

Section A
Required Client Information:

Company:	Visira Corp
Address:	13468 E. 900th St
Email To:	Brian.Voelker@VisiraCorp.com
Phone:	(217) 753-8911
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:	

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER 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					DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	
1																	
2																	
3																	
4																	
5																	
6																	
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13																	
14																	
15																	
16																	

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed

(mm/dd/yyyy):

1/11/23

1-11-23

16:30

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

page: 4 of 7

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 4 of 7	
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		
		Purchase Order No.:		Quote Reference:			
		Project Name:		Project Manager:			
		Project Number:	2285	Profile #:			
Requested Due Date/TAT:	10 day			Site Location	IL		
				STATE:			
				REGULATORY AGENCY			
				NPDES	GROUND WATER	DRINKING WATER	
				UST	RCRA	OTHER	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE Drinking Water DW Waste Water WW Wastewater P Product P Solid S Sludge SL Air AR Other OT Issue IS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H2SO4 HNO3 HCl NaOH Na2S2O3 Methanol Other	Y/N	Requested Analysis Filtered (Y/N)									Project No./ Lab ID.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
					DATE	TIME					DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202	Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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	PRINT Name of SAMPLER: Lindsey Hays		DATE Signed (MM/DD/YYYY): 1/11/23
	SIGNATURE of SAMPLER: 		1-11-23 16:30

3-402-0526 - 20

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 5 of 7

Section A Required Client Information:

Company: **Vistra Corp**
 Address: **13498 E. 900th St**
 Email To: **Brian.Voelker@VistraCorp.com**
 Phone: **(217) 753-8811** 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 #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER

Site Location
 STATE: IL

Requested Analysis Filtered (Y/N)

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER WASTE WATER PRODUCT COLLECTED IN WASTE AIR OTHER TISSUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# 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	OM12																		
2	OM15																		
3	OM16																		
4	OM17																		
5	OM21																		
6	OM22D																		
7	OM22S																		
8	OM23D																		
9	OM23S																		
10	OM24D																		
11	OM25D																		
12	OM25S																		
13	OR02																		
14	OR03D																		
15	OR03S																		
16	OR04D																		

DC-Q1-2023 Rev 3

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS							
DC-Q1-2023 Rev 3																					
																					

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:	13488 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:	
	Fax:	Project Manager:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #:	

Page: 2 of 7

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 ↑	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
				DATE	TIME					DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202	Residual Chlorine (Y/N)			
1	G12S																			
2	G15S																			
3	G50L																			
4	G50S		WTG	1/12/23	1440		4	X												
5	G51L		WTG	1/12/23	1548		4	X												
6	G51S		WTG	1/12/23	1523		2	X												
7	G52L		WTG	1/12/23	1552		0													
8	G52S																			
9	G53L																			
10	G53S																			
11	G54L																			
12	G54S																			
13	G55L																			
14	G55S																			
15	G56L		WTG	1/12/23	1045		0													
16	G56S																			

Section E Additional Comments		Section F Relinquished By / Affiliation		Section G Date		Section H Time		Section I Accepted By / Affiliation		Section J Date		Section K Time		Section L Temp in °C		Section M Sample Conditions	
DC-Q1-2023 Rev 3		[Signature]		1/12/23		12:23		[Signature]		1/12/23		12:23		1.7		Received on Custody Sealed Cooler Sample Intake	
SAMPLER NAME AND SIGNATURE: <i>Jason Stuckey</i> PRINT Name of SAMPLER: Jason Stuckey SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YYYY): 01/12/23 1-13-23 7:15am																	

GA02365

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 5 of 7

Section A
Required Client Information:Company: Visira CorpAddress: 13498 E. 900th StEmail To: Brian.Voelker@VisiraCorp.comPhone: (217) 753-8911 Fax:Requested Due Date/TAT: 10 daySection B
Required Project Information:Report To: Brian VoelkerCopy To: Jason StuckeyPurchase Order No.: Project Name: Project Number: 2285Section C
Invoice Information:Attention: Jason StuckeyCompany Name: Visira CorpAddress: see Section A

Quote

Reference:

Project

Manager:

Profile #:

REGULATORY AGENCY

NPDES

GROUND WATER

RCRA

OTHER

Site Location

STATE:

Requested Analysis Filtered (Y/N)

ITEM #	SOLIDS DRINKING WATER WATER WASTE WATER WASTEWATER SOLIDS OIL WIFE AIR OTHER Tissue	MATRIX CODE (non valid codes to be used)	SAMPLE TYPE (G=GRAB C=COMPOSITE)	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_203	DC_257_204			DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202	Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
DC-Q1-2023 Rev 3				1/12/23	17:02					Temp in °C	1.7	Y	Y
										Recooled (Y/N)		Y	Y
										Custody (Y/N)		Y	Y
										Sealed Cooler (Y/N)		Y	Y
										Samples intact (Y/N)		Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed

(MM/DD/YYYY):

01/12/23

1-13:23 7:15am

GA-02365-26
846

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: **Vistra Corp**
Address: **13488 E. 800th 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 #:

REGULATORY AGENCY

NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐
UST ☐ RCRA ☐ OTHER ☐

Site Location: **IL**
STATE:

ITEM #	Valid Matrix Codes MATRIX CODE GROUND WATER WASTE WATER WASTE WATER PRODUCT SOIL/SOLID OIL SLURRY WASTE OTHER TISSE	SAMPLE TYPE (G-GRAB O-COMP)	MATRIX CODE (see valid codes to left)	COLLECTED		# OF CONTAINERS	Preservatives	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
				DATE	TIME			Y/N	Analysis Test	DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202	Residual Chlorine (Y/N)	
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

DC-Q1-2023 Rev 3

RELINQUISHED BY / AFFILIATION **DATE** **TIME**

ACCEPTED BY / AFFILIATION **DATE** **TIME**

SAMPLE CONDITIONS

Temp in °C: **1.7** Received on: **Y** Custody: **2** Sealed Cooler: **Y** Samples intact: **Y**

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: **Jason Pen Gantner**
SIGNATURE of SAMPLER: *[Signature]*
DATE Signed (MM/DD/YYYY): **9/12/23**

[Signature] **1-13-23 7:15am**



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

June 13, 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



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order GE02221

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



Work Order GE03266

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
YES	Case narrative provided



Work Order GE03618

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



Pace Analytical Services, LLC

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Case Narrative

Sample GE02997-10 nitrate was originally reported at 10x dilution but it was discovered the sample was analyzed at a 5x dilution. The corrected raw data page is numbered 289a. The incorrect page has been removed and the corrected page has been added in its place.

RS = resample

X301 - soluble ferrous iron not measured

OM07 - not able to measure soluble ferrous iron due to insufficient ampules

RS - resample

G52s - pump not working and are unable to be removed from well without damage

G08L - DTW below top of pump



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ANALYTICAL RESULTS

Sample: GE02221-06
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 05/10/23 15:20

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	42	mg/L		05/12/23 01:03	10	10	05/12/23 01:03	CRD	EPA 300.0 REV 2.1
Sulfate	300	mg/L		05/12/23 01:24	100	100	05/12/23 01:24	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.14	Feet		05/10/23 15:20	1		05/10/23 15:20	FIELD	Field*
Dissolved oxygen, Field	1.5	mg/L		05/10/23 15:20	1		05/10/23 15:20	FIELD	Field*
Oxidation Reduction Potential	-60.0	mV		05/10/23 15:20	1	-500	05/10/23 15:20	FIELD	Field*
pH, Field Measured	6.93	pH Units		05/10/23 15:20	1		05/10/23 15:20	FIELD	Field*
Specific Conductance, Field Measured	1610	umhos/cm		05/10/23 15:20	1		05/10/23 15:20	FIELD	Field*
Temperature, Field Measured	71.9	°F		05/10/23 15:20	1		05/10/23 15:20	FIELD	Field*
Temperature, Field Measured	22.2	°C		05/10/23 15:20	1		05/10/23 15:20	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		05/10/23 15:20	1	0.00	05/10/23 15:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	700	mg/L		05/19/23 09:32	1	10	05/19/23 09:32	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/19/23 09:32	1	10	05/19/23 09:32	CPS	SM 2320B 1997*
Fluoride	0.269	mg/L		05/24/23 12:04	1	0.250	05/24/23 12:04	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1300	mg/L		05/17/23 11:18	1	26	05/17/23 17:16	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/15/23 12:00	5	3.0	05/22/23 15:57	JMW	EPA 6020A
Arsenic	28	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:26	JMW	EPA 6020A
Barium	65	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:26	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/22/23 15:57	JMW	EPA 6020A
Boron	1700	ug/L		05/15/23 12:00	5	10	05/23/23 10:26	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:26	JMW	EPA 6020A
Calcium	120	mg/L		05/15/23 12:00	5	0.20	05/23/23 10:26	JMW	EPA 6020A
Chromium	13	ug/L		05/15/23 12:00	5	4.0	05/23/23 10:26	JMW	EPA 6020A
Cobalt	3.6	ug/L		05/15/23 12:00	5	2.0	05/23/23 10:26	JMW	EPA 6020A
Lead	5.7	ug/L		05/15/23 12:00	5	1.0	05/22/23 15:57	JMW	EPA 6020A
Magnesium	59	mg/L		05/15/23 12:00	5	0.10	05/23/23 10:26	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/15/23 12:00	5	0.20	05/22/23 15:57	JMW	EPA 6020A
Molybdenum	8.6	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:26	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02221-06

Name: OR13D

Matrix: Ground Water - Grab

Sampled: 05/10/23 15:20

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	5.5	mg/L		05/15/23 12:00	5	0.10	05/23/23 10:26	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:26	JMW	EPA 6020A
Sodium	240	mg/L		05/15/23 12:00	5	0.10	05/23/23 10:26	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:26	JMW	EPA 6020A
Lithium	0.030	mg/L		05/15/23 12:00	1	0.020	05/16/23 10:13	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02221-07
Name: OM16
Matrix: Ground Water - Grab

Sampled: 05/10/23 13:50

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	8.2	mg/L		05/12/23 01:46	1	1.0	05/12/23 01:46	CRD	EPA 300.0 REV 2.1
Sulfate	2300	mg/L		05/12/23 02:07	500	500	05/12/23 02:07	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	23.07	Feet		05/10/23 13:50	1		05/10/23 13:50	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		05/10/23 13:50	1		05/10/23 13:50	FIELD	Field*
Oxidation Reduction Potential	32.0	mV		05/10/23 13:50	1	-500	05/10/23 13:50	FIELD	Field*
pH, Field Measured	6.47	pH Units		05/10/23 13:50	1		05/10/23 13:50	FIELD	Field*
Specific Conductance, Field Measured	3470	umhos/cm		05/10/23 13:50	1		05/10/23 13:50	FIELD	Field*
Temperature, Field Measured	26.1	°C		05/10/23 13:50	1		05/10/23 13:50	FIELD	Field*
Temperature, Field Measured	79.0	°F		05/10/23 13:50	1		05/10/23 13:50	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		05/10/23 13:50	1	0.00	05/10/23 13:50	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	760	mg/L		05/19/23 09:32	1	10	05/19/23 09:32	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/19/23 09:32	1	10	05/19/23 09:32	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 12:05	1	0.250	05/24/23 12:05	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4100	mg/L		05/17/23 11:18	1	26	05/17/23 17:16	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/15/23 12:00	5	3.0	05/22/23 16:00	JMW	EPA 6020A
Arsenic	8.7	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:30	JMW	EPA 6020A
Barium	57	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:30	JMW	EPA 6020A
Beryllium	2.7	ug/L		05/15/23 12:00	5	1.0	05/22/23 16:00	JMW	EPA 6020A
Boron	63	ug/L		05/15/23 12:00	5	10	05/23/23 10:30	JMW	EPA 6020A
Cadmium	3.1	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:30	JMW	EPA 6020A
Calcium	640	mg/L		05/15/23 12:00	100	4.0	05/23/23 11:39	JMW	EPA 6020A
Chromium	14	ug/L		05/15/23 12:00	5	4.0	05/23/23 10:30	JMW	EPA 6020A
Cobalt	9.0	ug/L		05/15/23 12:00	5	2.0	05/23/23 10:30	JMW	EPA 6020A
Lead	5.4	ug/L		05/15/23 12:00	5	1.0	05/22/23 16:00	JMW	EPA 6020A
Magnesium	370	mg/L		05/15/23 12:00	5	0.10	05/23/23 10:30	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/15/23 12:00	5	0.20	05/22/23 16:00	JMW	EPA 6020A
Molybdenum	5.0	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:30	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02221-07

Name: OM16

Matrix: Ground Water - Grab

Sampled: 05/10/23 13:50

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	2.8	mg/L		05/15/23 12:00	5	0.10	05/23/23 10:30	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:30	JMW	EPA 6020A
Sodium	25	mg/L		05/15/23 12:00	5	0.10	05/23/23 10:30	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:30	JMW	EPA 6020A
Lithium	0.040	mg/L		05/15/23 12:00	1	0.020	05/16/23 10:14	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02221-08
Name: OM17
Matrix: Ground Water - Grab

Sampled: 05/10/23 12:14

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.9	mg/L		05/12/23 02:29	1	1.0	05/12/23 02:29	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		05/12/23 02:29	1	0.250	05/12/23 02:29	CRD	EPA 300.0 REV 2.1
Sulfate	240	mg/L		05/22/23 17:46	50	50	05/22/23 17:46	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.89	Feet		05/10/23 12:14	1		05/10/23 12:14	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		05/10/23 12:14	1		05/10/23 12:14	FIELD	Field*
Oxidation Reduction Potential	17.0	mV		05/10/23 12:14	1	-500	05/10/23 12:14	FIELD	Field*
pH, Field Measured	6.66	pH Units		05/10/23 12:14	1		05/10/23 12:14	FIELD	Field*
Specific Conductance, Field Measured	923.0	umhos/cm		05/10/23 12:14	1		05/10/23 12:14	FIELD	Field*
Temperature, Field Measured	23.8	°C		05/10/23 12:14	1		05/10/23 12:14	FIELD	Field*
Temperature, Field Measured	74.8	°F		05/10/23 12:14	1		05/10/23 12:14	FIELD	Field*
Turbidity, Field Measured	375	NTU		05/10/23 12:14	1	0.00	05/10/23 12:14	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	390	mg/L		05/19/23 09:32	1	10	05/19/23 09:32	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		05/19/23 09:32	1	10	05/19/23 09:32	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	860	mg/L		05/17/23 11:18	1	26	05/17/23 17:16	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/15/23 12:00	5	3.0	05/22/23 16:03	JMW	EPA 6020A
Arsenic	2.5	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:34	JMW	EPA 6020A
Barium	110	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:34	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/22/23 16:03	JMW	EPA 6020A
Boron	160	ug/L		05/15/23 12:00	5	10	05/23/23 10:34	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:34	JMW	EPA 6020A
Calcium	160	mg/L		05/15/23 12:00	5	0.20	05/23/23 10:34	JMW	EPA 6020A
Chromium	11	ug/L		05/15/23 12:00	5	4.0	05/23/23 10:34	JMW	EPA 6020A
Cobalt	4.8	ug/L		05/15/23 12:00	5	2.0	05/23/23 10:34	JMW	EPA 6020A
Lead	3.9	ug/L		05/15/23 12:00	5	1.0	05/22/23 16:03	JMW	EPA 6020A
Magnesium	52	mg/L		05/15/23 12:00	5	0.10	05/23/23 10:34	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/15/23 12:00	5	0.20	05/22/23 16:03	JMW	EPA 6020A
Molybdenum	1.3	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:34	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02221-08

Name: OM17

Matrix: Ground Water - Grab

Sampled: 05/10/23 12:14

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	5.7	mg/L		05/15/23 12:00	5	0.10	05/23/23 10:34	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:34	JMW	EPA 6020A
Sodium	3.1	mg/L		05/15/23 12:00	5	0.10	05/23/23 10:34	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/15/23 12:00	5	1.0	05/23/23 10:34	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/15/23 12:00	1	0.020	05/16/23 10:15	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02767-02

Name: BA06

Matrix: Ground Water - Grab

Sampled: 05/12/23 12:19

Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	510	mg/L		05/13/23 04:17	100	100	05/13/23 04:17	CRD	EPA 300.0 REV 2.1
Sulfate	340	mg/L		05/13/23 04:17	100	100	05/13/23 04:17	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.7	Feet		05/12/23 12:19	1		05/12/23 12:19	FIELD	Field*
Dissolved oxygen, Field	0.82	mg/L		05/12/23 12:19	1		05/12/23 12:19	FIELD	Field*
Oxidation Reduction Potential	-39.0	mV		05/12/23 12:19	1	-500	05/12/23 12:19	FIELD	Field*
pH, Field Measured	6.44	pH Units		05/12/23 12:19	1		05/12/23 12:19	FIELD	Field*
Specific Conductance, Field Measured	2930	umhos/cm		05/12/23 12:19	1		05/12/23 12:19	FIELD	Field*
Temperature, Field Measured	15.7	°C		05/12/23 12:19	1		05/12/23 12:19	FIELD	Field*
Temperature, Field Measured	60.2	°F		05/12/23 12:19	1		05/12/23 12:19	FIELD	Field*
Turbidity, Field Measured	55.1	NTU		05/12/23 12:19	1	0.00	05/12/23 12:19	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	520	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 11:13	1	0.250	05/24/23 11:13	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2200	mg/L		05/18/23 17:03	1	26	05/18/23 17:42	HRF	SM 2540C
Soluble Nutrients - PIA									
Ammonia, Dissolved	< 0.10	mg/L		05/22/23 12:24	1	0.10	05/22/23 12:24	TTH	EPA 350.1 REV2
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/16/23 09:02	5	3.0	05/19/23 11:35	JMW	EPA 6020A
Arsenic	5.2	ug/L		05/16/23 09:02	5	1.0	05/19/23 11:35	JMW	EPA 6020A
Barium	110	ug/L		05/16/23 09:02	5	1.0	05/19/23 11:35	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/16/23 09:02	5	1.0	05/19/23 11:35	JMW	EPA 6020A
Boron	8700	ug/L		05/16/23 09:02	5	10	05/19/23 11:35	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/16/23 09:02	5	1.0	05/19/23 11:35	JMW	EPA 6020A
Calcium	340	mg/L		05/16/23 09:02	5	0.20	05/19/23 11:35	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/16/23 09:02	5	4.0	05/19/23 11:35	JMW	EPA 6020A
Cobalt	9.5	ug/L		05/16/23 09:02	5	2.0	05/19/23 11:35	JMW	EPA 6020A
Lead	< 1.0	ug/L		05/16/23 09:02	5	1.0	05/19/23 11:35	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE02767-02

Name: BA06

Matrix: Ground Water - Grab

Sampled: 05/12/23 12:19

Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Magnesium	210	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:35	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/16/23 09:02	5	0.20	05/19/23 11:35	JMW	EPA 6020A
Molybdenum	1.2	ug/L		05/16/23 09:02	5	1.0	05/19/23 11:35	JMW	EPA 6020A
Potassium	0.57	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:35	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/16/23 09:02	5	1.0	05/19/23 11:35	JMW	EPA 6020A
Sodium	18	mg/L		05/16/23 09:02	5	0.10	05/19/23 11:35	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/16/23 09:02	5	1.0	05/19/23 11:35	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/16/23 09:02	1	0.020	05/16/23 12:35	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02997-09
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 05/15/23 13:14
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	560	mg/L		05/16/23 18:23	100	100	05/16/23 18:23	CRD	EPA 300.0 REV 2.1
Sulfate	690	mg/L		05/16/23 18:23	100	100	05/16/23 18:23	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	57.83	Feet		05/15/23 13:14	1		05/15/23 13:14	FIELD	Field*
Dissolved oxygen, Field	5.3	mg/L		05/15/23 13:14	1		05/15/23 13:14	FIELD	Field*
Oxidation Reduction Potential	2.00	mV		05/15/23 13:14	1	-500	05/15/23 13:14	FIELD	Field*
pH, Field Measured	6.92	pH Units		05/15/23 13:14	1		05/15/23 13:14	FIELD	Field*
Specific Conductance, Field Measured	3280	umhos/cm		05/15/23 13:14	1		05/15/23 13:14	FIELD	Field*
Temperature, Field Measured	13.5	°C		05/15/23 13:14	1		05/15/23 13:14	FIELD	Field*
Temperature, Field Measured	56.4	°F		05/15/23 13:14	1		05/15/23 13:14	FIELD	Field*
Turbidity, Field Measured	726	NTU		05/15/23 13:14	1	0.00	05/15/23 13:14	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	510	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*
Fluoride	0.378	mg/L		05/24/23 11:25	1	0.250	05/24/23 11:25	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2700	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:08	5	3.0	05/24/23 15:47	JMW	EPA 6020A
Arsenic	45	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:50	JMW	EPA 6020A
Barium	400	ug/L		05/22/23 09:08	100	20	05/24/23 13:10	JMW	EPA 6020A
Beryllium	4.5	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:50	JMW	EPA 6020A
Boron	28000	ug/L		05/22/23 09:08	100	200	05/24/23 13:10	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:50	JMW	EPA 6020A
Calcium	460	mg/L		05/22/23 09:08	5	0.20	05/23/23 21:50	JMW	EPA 6020A
Chromium	130	ug/L		05/22/23 09:08	5	4.0	05/23/23 21:50	JMW	EPA 6020A
Cobalt	78	ug/L		05/22/23 09:08	5	2.0	05/23/23 21:50	JMW	EPA 6020A
Lead	82	ug/L		05/22/23 09:08	5	1.0	05/24/23 15:47	JMW	EPA 6020A
Magnesium	270	mg/L		05/22/23 09:08	5	0.10	05/23/23 21:50	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:08	5	0.20	05/24/23 15:47	JMW	EPA 6020A
Molybdenum	8.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:50	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02997-09

Name: OM25S

Matrix: Ground Water - Grab

Sampled: 05/15/23 13:14

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	18	mg/L		05/22/23 09:08	5	0.10	05/23/23 21:50	JMW	EPA 6020A
Selenium	4.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:50	JMW	EPA 6020A
Sodium	130	mg/L		05/22/23 09:08	100	2.0	05/24/23 13:10	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 15:47	JMW	EPA 6020A
Lithium	0.18	mg/L		05/22/23 09:08	1	0.020	05/23/23 10:06	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02997-10
Name: OM12
Matrix: Ground Water - Grab

Sampled: 05/15/23 14:05

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	< 5.0	mg/L		05/16/23 18:59	5	5.0	05/16/23 18:59	CRD	EPA 300.0 REV 2.1
Sulfate	430	mg/L		05/16/23 19:17	100	100	05/16/23 19:17	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.8	Feet		05/15/23 14:05	1		05/15/23 14:05	FIELD	Field*
Dissolved oxygen, Field	0.85	mg/L		05/15/23 14:05	1		05/15/23 14:05	FIELD	Field*
Oxidation Reduction Potential	-56.5	mV		05/15/23 14:05	1	-500	05/15/23 14:05	FIELD	Field*
pH, Field Measured	6.65	pH Units		05/15/23 14:05	1		05/15/23 14:05	FIELD	Field*
Specific Conductance, Field Measured	2034	umhos/cm		05/15/23 14:05	1		05/15/23 14:05	FIELD	Field*
Temperature, Field Measured	16.5	°C		05/15/23 14:05	1		05/15/23 14:05	FIELD	Field*
Temperature, Field Measured	61.7	°F		05/15/23 14:05	1		05/15/23 14:05	FIELD	Field*
Turbidity, Field Measured	186	NTU		05/15/23 14:05	1	0.00	05/15/23 14:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	840	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*
Fluoride	< 0.250	mg/L		05/24/23 11:27	1	0.250	05/24/23 11:27	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1500	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:08	5	3.0	05/24/23 13:14	JMW	EPA 6020A
Arsenic	26	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:53	JMW	EPA 6020A
Barium	280	ug/L		05/22/23 09:08	5	1.0	05/24/23 13:14	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:53	JMW	EPA 6020A
Boron	93	ug/L		05/22/23 09:08	5	10	05/24/23 13:14	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:53	JMW	EPA 6020A
Calcium	310	mg/L		05/22/23 09:08	5	0.20	05/23/23 21:53	JMW	EPA 6020A
Chromium	8.7	ug/L		05/22/23 09:08	5	4.0	05/23/23 21:53	JMW	EPA 6020A
Cobalt	3.2	ug/L		05/22/23 09:08	5	2.0	05/23/23 21:53	JMW	EPA 6020A
Lead	4.1	ug/L		05/22/23 09:08	5	1.0	05/24/23 13:14	JMW	EPA 6020A
Magnesium	120	mg/L		05/22/23 09:08	5	0.10	05/23/23 21:53	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:08	5	0.20	05/24/23 15:51	JMW	EPA 6020A
Molybdenum	3.9	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:53	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02997-10

Name: OM12

Matrix: Ground Water - Grab

Sampled: 05/15/23 14:05

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	1.5	mg/L		05/22/23 09:08	5	0.10	05/24/23 13:14	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:53	JMW	EPA 6020A
Sodium	14	mg/L		05/22/23 09:08	5	0.10	05/24/23 13:14	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 13:14	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:08	1	0.020	05/23/23 10:07	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02997-11
Name: OM21
Matrix: Ground Water - Grab

Sampled: 05/15/23 13:24
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	220	mg/L	Q4	05/16/23 21:06	50	50	05/16/23 21:06	CRD	EPA 300.0 REV 2.1
Sulfate	1200	mg/L	Q4	05/16/23 21:24	250	250	05/16/23 21:24	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	8.65	Feet		05/15/23 13:24	1		05/15/23 13:24	FIELD	Field*
Dissolved oxygen, Field	1.7	mg/L		05/15/23 13:24	1		05/15/23 13:24	FIELD	Field*
Oxidation Reduction Potential	-29.0	mV		05/15/23 13:24	1	-500	05/15/23 13:24	FIELD	Field*
pH, Field Measured	6.51	pH Units		05/15/23 13:24	1		05/15/23 13:24	FIELD	Field*
Specific Conductance, Field Measured	3620	umhos/cm		05/15/23 13:24	1		05/15/23 13:24	FIELD	Field*
Temperature, Field Measured	13.6	°C		05/15/23 13:24	1		05/15/23 13:24	FIELD	Field*
Temperature, Field Measured	56.4	°F		05/15/23 13:24	1		05/15/23 13:24	FIELD	Field*
Turbidity, Field Measured	118	NTU		05/15/23 13:24	1	0.00	05/15/23 13:24	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	620	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*
Fluoride	< 0.250	mg/L		05/24/23 11:32	1	0.250	05/24/23 11:32	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2800	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:08	5	3.0	05/24/23 14:04	JMW	EPA 6020A
Arsenic	2.7	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:57	JMW	EPA 6020A
Barium	21	ug/L		05/22/23 09:08	100	20	05/24/23 13:18	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:57	JMW	EPA 6020A
Boron	11000	ug/L		05/22/23 09:08	100	200	05/24/23 13:18	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:57	JMW	EPA 6020A
Calcium	430	mg/L		05/22/23 09:08	5	0.20	05/23/23 21:57	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/22/23 09:08	5	4.0	05/23/23 21:57	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:08	5	2.0	05/23/23 21:57	JMW	EPA 6020A
Lead	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:04	JMW	EPA 6020A
Magnesium	200	mg/L		05/22/23 09:08	5	0.10	05/23/23 21:57	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:08	5	0.20	05/24/23 14:04	JMW	EPA 6020A
Molybdenum	1.6	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:57	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02997-11

Name: OM21

Matrix: Ground Water - Grab

Sampled: 05/15/23 13:24

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	9.2	mg/L		05/22/23 09:08	5	0.10	05/24/23 14:04	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 21:57	JMW	EPA 6020A
Sodium	220	mg/L		05/22/23 09:08	100	2.0	05/24/23 13:18	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:04	JMW	EPA 6020A
Lithium	0.032	mg/L		05/22/23 09:08	1	0.020	05/23/23 10:08	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02997-12
Name: OM23D
Matrix: Ground Water - Grab

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

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	24	mg/L		05/16/23 22:00	10	10	05/16/23 22:00	CRD	EPA 300.0 REV 2.1
Sulfate	380	mg/L		05/16/23 22:18	100	100	05/16/23 22:18	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	37.83	Feet		05/15/23 16:00	1		05/15/23 16:00	FIELD	Field*
Dissolved oxygen, Field	2.2	mg/L		05/15/23 16:00	1		05/15/23 16:00	FIELD	Field*
Oxidation Reduction Potential	-25.0	mV		05/15/23 16:00	1	-500	05/15/23 16:00	FIELD	Field*
pH, Field Measured	7.12	pH Units		05/15/23 16:00	1		05/15/23 16:00	FIELD	Field*
Specific Conductance, Field Measured	1670	umhos/cm		05/15/23 16:00	1		05/15/23 16:00	FIELD	Field*
Temperature, Field Measured	55.6	°F		05/15/23 16:00	1		05/15/23 16:00	FIELD	Field*
Temperature, Field Measured	13.1	°C		05/15/23 16:00	1		05/15/23 16:00	FIELD	Field*
Turbidity, Field Measured	75.3	NTU		05/15/23 16:00	1	0.00	05/15/23 16:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	620	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*
Fluoride	< 0.250	mg/L		05/24/23 11:34	1	0.250	05/24/23 11:34	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1200	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:08	5	3.0	05/24/23 13:22	JMW	EPA 6020A
Arsenic	1.8	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:01	JMW	EPA 6020A
Barium	30	ug/L		05/22/23 09:08	5	1.0	05/24/23 13:22	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:01	JMW	EPA 6020A
Boron	1900	ug/L		05/22/23 09:08	5	10	05/24/23 13:22	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:01	JMW	EPA 6020A
Calcium	170	mg/L		05/22/23 09:08	5	0.20	05/23/23 22:01	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/22/23 09:08	5	4.0	05/23/23 22:01	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:08	5	2.0	05/23/23 22:01	JMW	EPA 6020A
Lead	1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 13:22	JMW	EPA 6020A
Magnesium	100	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:01	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:08	5	0.20	05/24/23 13:22	JMW	EPA 6020A
Molybdenum	2.4	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:01	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02997-12

Name: OM23D

Matrix: Ground Water - Grab

Sampled: 05/15/23 16:00

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	5.7	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:01	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:01	JMW	EPA 6020A
Sodium	110	mg/L		05/22/23 09:08	5	0.10	05/24/23 13:22	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 13:22	JMW	EPA 6020A
Lithium	0.036	mg/L		05/22/23 09:08	1	0.020	05/23/23 10:10	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02997-13

Name: OR11

Matrix: Ground Water - Grab

Sampled: 05/15/23 12:33

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	63	mg/L		05/16/23 22:54	25	25	05/16/23 22:54	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		05/16/23 22:36	1	0.250	05/16/23 22:36	CRD	EPA 300.0 REV 2.1
Sulfate	150	mg/L		05/16/23 22:54	25	25	05/16/23 22:54	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	30.74	Feet		05/15/23 12:33	1		05/15/23 12:33	FIELD	Field*
Dissolved oxygen, Field	1.1	mg/L		05/15/23 12:33	1		05/15/23 12:33	FIELD	Field*
Oxidation Reduction Potential	-11.6	mV		05/15/23 12:33	1	-500	05/15/23 12:33	FIELD	Field*
pH, Field Measured	7.04	pH Units		05/15/23 12:33	1		05/15/23 12:33	FIELD	Field*
Specific Conductance, Field Measured	1068	umhos/cm		05/15/23 12:33	1		05/15/23 12:33	FIELD	Field*
Temperature, Field Measured	61.2	°F		05/15/23 12:33	1		05/15/23 12:33	FIELD	Field*
Temperature, Field Measured	16.2	°C		05/15/23 12:33	1		05/15/23 12:33	FIELD	Field*
Turbidity, Field Measured	217	NTU		05/15/23 12:33	1	0.00	05/15/23 12:33	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	390	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	790	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:08	5	3.0	05/24/23 14:12	JMW	EPA 6020A
Arsenic	2.6	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:05	JMW	EPA 6020A
Barium	50	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:12	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:05	JMW	EPA 6020A
Boron	7200	ug/L		05/22/23 09:08	5	10	05/24/23 14:12	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:05	JMW	EPA 6020A
Calcium	150	mg/L		05/22/23 09:08	5	0.20	05/23/23 22:05	JMW	EPA 6020A
Chromium	4.4	ug/L		05/22/23 09:08	5	4.0	05/23/23 22:05	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:08	5	2.0	05/23/23 22:05	JMW	EPA 6020A
Lead	1.8	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:12	JMW	EPA 6020A
Magnesium	61	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:05	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:08	5	0.20	05/24/23 14:12	JMW	EPA 6020A
Molybdenum	8.9	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:05	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02997-13

Name: OR11

Matrix: Ground Water - Grab

Sampled: 05/15/23 12:33

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.4	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:05	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:05	JMW	EPA 6020A
Sodium	25	mg/L		05/22/23 09:08	5	0.10	05/24/23 14:12	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:12	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:08	1	0.020	05/23/23 10:11	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02997-14
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 05/15/23 11:35

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	270	mg/L		05/17/23 00:25	100	100	05/17/23 00:25	CRD	EPA 300.0 REV 2.1
Sulfate	850	mg/L		05/17/23 00:25	100	100	05/17/23 00:25	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	8.83	Feet		05/15/23 11:35	1		05/15/23 11:35	FIELD	Field*
Dissolved oxygen, Field	5.0	mg/L		05/15/23 11:35	1		05/15/23 11:35	FIELD	Field*
Oxidation Reduction Potential	44.0	mV		05/15/23 11:35	1	-500	05/15/23 11:35	FIELD	Field*
pH, Field Measured	6.53	pH Units		05/15/23 11:35	1		05/15/23 11:35	FIELD	Field*
Specific Conductance, Field Measured	2630	umhos/cm		05/15/23 11:35	1		05/15/23 11:35	FIELD	Field*
Temperature, Field Measured	15.1	°C		05/15/23 11:35	1		05/15/23 11:35	FIELD	Field*
Temperature, Field Measured	59.1	°F		05/15/23 11:35	1		05/15/23 11:35	FIELD	Field*
Turbidity, Field Measured	184	NTU		05/15/23 11:35	1	0.00	05/15/23 11:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	450	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*
Fluoride	< 0.250	mg/L		05/24/23 11:35	1	0.250	05/24/23 11:35	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2200	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:08	5	3.0	05/24/23 14:16	JMW	EPA 6020A
Arsenic	5.4	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:09	JMW	EPA 6020A
Barium	31	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:16	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:09	JMW	EPA 6020A
Boron	20000	ug/L		05/22/23 09:08	100	200	05/25/23 11:05	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:09	JMW	EPA 6020A
Calcium	430	mg/L		05/22/23 09:08	5	0.20	05/23/23 22:09	JMW	EPA 6020A
Chromium	4.9	ug/L		05/22/23 09:08	5	4.0	05/23/23 22:09	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:08	5	2.0	05/23/23 22:09	JMW	EPA 6020A
Lead	3.2	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:16	JMW	EPA 6020A
Magnesium	130	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:09	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:08	5	0.20	05/24/23 14:16	JMW	EPA 6020A
Molybdenum	6.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:09	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02997-14

Name: OR14D

Matrix: Ground Water - Grab

Sampled: 05/15/23 11:35

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.9	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:09	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:09	JMW	EPA 6020A
Sodium	48	mg/L		05/22/23 09:08	5	0.10	05/24/23 14:16	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:16	JMW	EPA 6020A
Lithium	0.020	mg/L		05/22/23 09:08	1	0.020	05/23/23 10:12	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02997-15
Name: OR19
Matrix: Ground Water - Grab

Sampled: 05/15/23 15:28
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	160	mg/L		05/17/23 01:22	100	100	05/17/23 01:22	CRD	EPA 300.0 REV 2.1
Fluoride	0.451	mg/L		05/17/23 00:44	1	0.250	05/17/23 00:44	CRD	EPA 300.0 REV 2.1
Sulfate	940	mg/L		05/17/23 01:22	100	100	05/17/23 01:22	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.7	Feet		05/15/23 15:28	1		05/15/23 15:28	FIELD	Field*
Dissolved oxygen, Field	0.78	mg/L		05/15/23 15:28	1		05/15/23 15:28	FIELD	Field*
Oxidation Reduction Potential	-35.6	mV		05/15/23 15:28	1	-500	05/15/23 15:28	FIELD	Field*
pH, Field Measured	6.75	pH Units		05/15/23 15:28	1		05/15/23 15:28	FIELD	Field*
Specific Conductance, Field Measured	2622	umhos/cm		05/15/23 15:28	1		05/15/23 15:28	FIELD	Field*
Temperature, Field Measured	64.7	°F		05/15/23 15:28	1		05/15/23 15:28	FIELD	Field*
Temperature, Field Measured	18.2	°C		05/15/23 15:28	1		05/15/23 15:28	FIELD	Field*
Turbidity, Field Measured	356	NTU		05/15/23 15:28	1	0.00	05/15/23 15:28	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	600	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	2400	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:08	5	3.0	05/24/23 14:20	JMW	EPA 6020A
Arsenic	1.4	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:12	JMW	EPA 6020A
Barium	25	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:20	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:12	JMW	EPA 6020A
Boron	17000	ug/L		05/22/23 09:08	100	200	05/25/23 11:09	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:12	JMW	EPA 6020A
Calcium	330	mg/L		05/22/23 09:08	5	0.20	05/23/23 22:12	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/22/23 09:08	5	4.0	05/23/23 22:12	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:08	5	2.0	05/23/23 22:12	JMW	EPA 6020A
Lead	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:20	JMW	EPA 6020A
Magnesium	160	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:12	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:08	5	0.20	05/24/23 14:20	JMW	EPA 6020A
Molybdenum	3.7	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:12	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02997-15

Name: OR19

Matrix: Ground Water - Grab

Sampled: 05/15/23 15:28

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	5.2	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:12	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:12	JMW	EPA 6020A
Sodium	150	mg/L		05/22/23 09:08	5	0.10	05/24/23 14:20	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:20	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:08	1	0.020	05/23/23 10:42	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE02997-16
Name: OR20
Matrix: Ground Water - Grab

Sampled: 05/15/23 11:10

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	370	mg/L		05/17/23 02:18	100	100	05/17/23 02:18	CRD	EPA 300.0 REV 2.1
Fluoride	0.416	mg/L		05/17/23 01:41	1	0.250	05/17/23 01:41	CRD	EPA 300.0 REV 2.1
Sulfate	430	mg/L		05/17/23 02:18	100	100	05/17/23 02:18	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.25	Feet		05/15/23 11:10	1		05/15/23 11:10	FIELD	Field*
Dissolved oxygen, Field	0.99	mg/L		05/15/23 11:10	1		05/15/23 11:10	FIELD	Field*
Oxidation Reduction Potential	1.90	mV		05/15/23 11:10	1	-500	05/15/23 11:10	FIELD	Field*
pH, Field Measured	6.92	pH Units		05/15/23 11:10	1		05/15/23 11:10	FIELD	Field*
Specific Conductance, Field Measured	2592	umhos/cm		05/15/23 11:10	1		05/15/23 11:10	FIELD	Field*
Temperature, Field Measured	16.5	°C		05/15/23 11:10	1		05/15/23 11:10	FIELD	Field*
Temperature, Field Measured	61.8	°F		05/15/23 11:10	1		05/15/23 11:10	FIELD	Field*
Turbidity, Field Measured	170	NTU		05/15/23 11:10	1	0.00	05/15/23 11:10	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		05/24/23 09:25	1	10	05/24/23 09:25	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	1800	mg/L		05/19/23 12:22	1	26	05/19/23 13:18	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:08	5	3.0	05/24/23 14:23	JMW	EPA 6020A
Arsenic	7.9	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:16	JMW	EPA 6020A
Barium	37	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:23	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:16	JMW	EPA 6020A
Boron	41000	ug/L		05/22/23 09:08	100	200	05/25/23 11:13	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:16	JMW	EPA 6020A
Calcium	250	mg/L		05/22/23 09:08	5	0.20	05/23/23 22:16	JMW	EPA 6020A
Chromium	6.4	ug/L		05/22/23 09:08	5	4.0	05/23/23 22:16	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:08	5	2.0	05/23/23 22:16	JMW	EPA 6020A
Lead	1.6	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:23	JMW	EPA 6020A
Magnesium	100	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:16	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:08	5	0.20	05/24/23 14:23	JMW	EPA 6020A
Molybdenum	39	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:16	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE02997-16

Name: OR20

Matrix: Ground Water - Grab

Sampled: 05/15/23 11:10

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	9.2	mg/L		05/22/23 09:08	5	0.10	05/23/23 22:16	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/23/23 22:16	JMW	EPA 6020A
Sodium	180	mg/L		05/22/23 09:08	5	0.10	05/24/23 14:23	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:08	5	1.0	05/24/23 14:23	JMW	EPA 6020A
Lithium	0.040	mg/L		05/22/23 09:08	1	0.020	05/23/23 10:44	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03266-02
Name: OM01
Matrix: Ground Water - Grab

Sampled: 05/16/23 10:48

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	29	mg/L		05/17/23 11:44	10	10	05/17/23 11:44	CRD	EPA 300.0 REV 2.1
Sulfate	1900	mg/L		05/17/23 12:02	250	250	05/17/23 12:02	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.6	Feet		05/16/23 10:48	1		05/16/23 10:48	FIELD	Field*
Dissolved oxygen, Field	6.2	mg/L		05/16/23 10:48	1		05/16/23 10:48	FIELD	Field*
Oxidation Reduction Potential	129	mV		05/16/23 10:48	1	-500	05/16/23 10:48	FIELD	Field*
pH, Field Measured	6.31	pH Units		05/16/23 10:48	1		05/16/23 10:48	FIELD	Field*
Specific Conductance, Field Measured	3350	umhos/cm		05/16/23 10:48	1		05/16/23 10:48	FIELD	Field*
Temperature, Field Measured	66.2	°F		05/16/23 10:48	1		05/16/23 10:48	FIELD	Field*
Temperature, Field Measured	19.0	°C		05/16/23 10:48	1		05/16/23 10:48	FIELD	Field*
Turbidity, Field Measured	117	NTU		05/16/23 10:48	1	0.00	05/16/23 10:48	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	550	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 11:36	1	0.250	05/24/23 11:36	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3300	mg/L		05/23/23 16:50	1	26	05/23/23 17:49	HRF	SM 2540C
Soluble Nutrients - PIA									
Ammonia, Dissolved	< 0.10	mg/L		05/22/23 12:50	1	0.10	05/22/23 12:50	TTH	EPA 350.1 REV2
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 09:19	JMW	EPA 6020A
Arsenic	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:36	JMW	EPA 6020A
Barium	19	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:19	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:19	JMW	EPA 6020A
Boron	210	ug/L		05/22/23 09:19	5	10	05/26/23 10:36	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:36	JMW	EPA 6020A
Calcium	690	mg/L		05/22/23 09:19	100	4.0	05/26/23 12:09	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/22/23 09:19	5	4.0	05/26/23 10:36	JMW	EPA 6020A
Cobalt	14	ug/L		05/22/23 09:19	5	2.0	05/26/23 10:36	JMW	EPA 6020A
Lead	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:19	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GE03266-02

Name: OM01

Matrix: Ground Water - Grab

Sampled: 05/16/23 10:48

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Magnesium	290	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:36	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 09:19	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:36	JMW	EPA 6020A
Potassium	1.0	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:36	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:36	JMW	EPA 6020A
Sodium	33	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:36	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:19	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:19	1	0.020	05/23/23 10:51	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03266-03
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 05/16/23 12:15

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	17	mg/L		05/17/23 12:38	10	10	05/17/23 12:38	CRD	EPA 300.0 REV 2.1
Sulfate	140	mg/L		05/17/23 12:57	100	100	05/17/23 12:57	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	17.74	Feet		05/16/23 12:15	1		05/16/23 12:15	FIELD	Field*
Dissolved oxygen, Field	0.89	mg/L		05/16/23 12:15	1		05/16/23 12:15	FIELD	Field*
Oxidation Reduction Potential	81.2	mV		05/16/23 12:15	1	-500	05/16/23 12:15	FIELD	Field*
pH, Field Measured	6.73	pH Units		05/16/23 12:15	1		05/16/23 12:15	FIELD	Field*
Specific Conductance, Field Measured	1193	umhos/cm		05/16/23 12:15	1		05/16/23 12:15	FIELD	Field*
Temperature, Field Measured	18.3	°C		05/16/23 12:15	1		05/16/23 12:15	FIELD	Field*
Temperature, Field Measured	65.0	°F		05/16/23 12:15	1		05/16/23 12:15	FIELD	Field*
Turbidity, Field Measured	194	NTU		05/16/23 12:15	1	0.00	05/16/23 12:15	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	540	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 11:39	1	0.250	05/24/23 11:39	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	740	mg/L		05/23/23 16:50	1	26	05/23/23 17:49	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 09:21	JMW	EPA 6020A
Arsenic	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:40	JMW	EPA 6020A
Barium	45	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:21	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:21	JMW	EPA 6020A
Boron	95	ug/L		05/22/23 09:19	5	10	05/26/23 10:40	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:40	JMW	EPA 6020A
Calcium	160	mg/L		05/22/23 09:19	5	0.20	05/26/23 10:40	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/22/23 09:19	5	4.0	05/26/23 10:40	JMW	EPA 6020A
Cobalt	3.9	ug/L		05/22/23 09:19	5	2.0	05/26/23 10:40	JMW	EPA 6020A
Lead	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:21	JMW	EPA 6020A
Magnesium	77	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:40	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 09:21	JMW	EPA 6020A
Molybdenum	1.5	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:40	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE03266-03

Name: OM04S

Matrix: Ground Water - Grab

Sampled: 05/16/23 12:15

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.64	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:40	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:40	JMW	EPA 6020A
Sodium	15	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:40	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:21	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:19	1	0.020	05/23/23 10:52	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03266-04
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 05/16/23 14:58

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	370	mg/L		05/17/23 14:27	100	100	05/17/23 14:27	CRD	EPA 300.0 REV 2.1
Fluoride	0.354	mg/L		05/17/23 13:51	1	0.250	05/17/23 13:51	CRD	EPA 300.0 REV 2.1
Sulfate	830	mg/L		05/17/23 14:27	100	100	05/17/23 14:27	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	2.65	Feet		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Oxidation Reduction Potential	-17.0	mV		05/16/23 14:58	1	-500	05/16/23 14:58	FIELD	Field*
pH, Field Measured	6.79	pH Units		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Specific Conductance, Field Measured	3005	umhos/cm		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Temperature, Field Measured	19.1	°C		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Temperature, Field Measured	66.4	°F		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Turbidity, Field Measured	639	NTU		05/16/23 14:58	1	0.00	05/16/23 14:58	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	410	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2300	mg/L		05/23/23 16:50	1	26	05/23/23 17:49	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 09:23	JMW	EPA 6020A
Arsenic	12	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:44	JMW	EPA 6020A
Barium	20	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:23	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:23	JMW	EPA 6020A
Boron	22000	ug/L		05/22/23 09:19	100	200	05/26/23 12:13	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:44	JMW	EPA 6020A
Calcium	410	mg/L		05/22/23 09:19	5	0.20	05/26/23 10:44	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/22/23 09:19	5	4.0	05/26/23 10:44	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:19	5	2.0	05/26/23 10:44	JMW	EPA 6020A
Lead	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:23	JMW	EPA 6020A
Magnesium	140	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:44	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 09:23	JMW	EPA 6020A
Molybdenum	5.7	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:44	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE03266-04

Name: OM24D

Matrix: Ground Water - Grab

Sampled: 05/16/23 14:58

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	3.9	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:44	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:44	JMW	EPA 6020A
Sodium	100	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:44	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:23	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:19	1	0.020	05/23/23 10:53	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03266-05

Name: OM24D DUP

Matrix: Ground Water - Field Duplicate

Sampled: 05/16/23 14:58

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	370	mg/L		05/17/23 15:21	100	100	05/17/23 15:21	CRD	EPA 300.0 REV 2.1
Fluoride	0.449	mg/L		05/17/23 14:45	1	0.250	05/17/23 14:45	CRD	EPA 300.0 REV 2.1
Sulfate	840	mg/L		05/17/23 15:21	100	100	05/17/23 15:21	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	2.65	Feet		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Oxidation Reduction Potential	-17.0	mV		05/16/23 14:58	1	-500	05/16/23 14:58	FIELD	Field*
pH, Field Measured	6.79	pH Units		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Specific Conductance, Field Measured	3005	umhos/cm		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Temperature, Field Measured	66.4	°F		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Temperature, Field Measured	19.1	°C		05/16/23 14:58	1		05/16/23 14:58	FIELD	Field*
Turbidity, Field Measured	639	NTU		05/16/23 14:58	1	0.00	05/16/23 14:58	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	420	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2400	mg/L		05/23/23 16:50	1	26	05/23/23 17:49	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 09:26	JMW	EPA 6020A
Arsenic	11	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:48	JMW	EPA 6020A
Barium	19	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:26	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:26	JMW	EPA 6020A
Boron	22000	ug/L		05/22/23 09:19	100	200	05/26/23 12:16	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:48	JMW	EPA 6020A
Calcium	400	mg/L		05/22/23 09:19	5	0.20	05/26/23 10:48	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/22/23 09:19	5	4.0	05/26/23 10:48	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:19	5	2.0	05/26/23 10:48	JMW	EPA 6020A
Lead	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:26	JMW	EPA 6020A
Magnesium	140	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:48	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 09:26	JMW	EPA 6020A
Molybdenum	5.5	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:48	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE03266-05

Name: OM24D DUP

Matrix: Ground Water - Field Duplicate

Sampled: 05/16/23 14:58

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	3.9	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:48	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:48	JMW	EPA 6020A
Sodium	100	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:48	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:26	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:19	1	0.020	05/23/23 11:00	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03266-06
Name: OR02
Matrix: Ground Water - Grab

Sampled: 05/16/23 12:14

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	210	mg/L		05/17/23 16:15	100	100	05/17/23 16:15	CRD	EPA 300.0 REV 2.1
Sulfate	270	mg/L		05/17/23 16:15	100	100	05/17/23 16:15	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	5.04	Feet		05/16/23 12:14	1		05/16/23 12:14	FIELD	Field*
Dissolved oxygen, Field	8.4	mg/L		05/16/23 12:14	1		05/16/23 12:14	FIELD	Field*
Oxidation Reduction Potential	-17.0	mV		05/16/23 12:14	1	-500	05/16/23 12:14	FIELD	Field*
pH, Field Measured	6.60	pH Units		05/16/23 12:14	1		05/16/23 12:14	FIELD	Field*
Specific Conductance, Field Measured	2000	umhos/cm		05/16/23 12:14	1		05/16/23 12:14	FIELD	Field*
Temperature, Field Measured	63.2	°F		05/16/23 12:14	1		05/16/23 12:14	FIELD	Field*
Temperature, Field Measured	17.3	°C		05/16/23 12:14	1		05/16/23 12:14	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		05/16/23 12:14	1	0.00	05/16/23 12:14	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	540	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 11:50	1	0.250	05/24/23 11:50	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1300	mg/L		05/23/23 16:50	1	26	05/23/23 17:49	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 09:28	JMW	EPA 6020A
Arsenic	27	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:52	JMW	EPA 6020A
Barium	110	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:28	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:28	JMW	EPA 6020A
Boron	4900	ug/L		05/22/23 09:19	5	10	05/26/23 10:52	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:52	JMW	EPA 6020A
Calcium	240	mg/L		05/22/23 09:19	5	0.20	05/26/23 10:52	JMW	EPA 6020A
Chromium	14	ug/L		05/22/23 09:19	5	4.0	05/26/23 10:52	JMW	EPA 6020A
Cobalt	10	ug/L		05/22/23 09:19	5	2.0	05/26/23 10:52	JMW	EPA 6020A
Lead	16	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:28	JMW	EPA 6020A
Magnesium	95	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:52	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 09:28	JMW	EPA 6020A
Molybdenum	7.2	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:52	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE03266-06

Name: OR02

Matrix: Ground Water - Grab

Sampled: 05/16/23 12:14

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	3.2	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:52	JMW	EPA 6020A
Selenium	1.1	ug/L		05/22/23 09:19	5	1.0	05/26/23 10:52	JMW	EPA 6020A
Sodium	100	mg/L		05/22/23 09:19	5	0.10	05/26/23 10:52	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:28	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:19	1	0.020	05/23/23 11:01	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03266-07

Name: OR03D

Matrix: Ground Water - Grab

Sampled: 05/16/23 13:36

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	450	mg/L		05/17/23 16:33	250	250	05/17/23 16:33	CRD	EPA 300.0 REV 2.1
Fluoride	0.270	mg/L		05/17/23 17:46	1	0.250	05/17/23 17:46	CRD	EPA 300.0 REV 2.1
Sulfate	420	mg/L		05/17/23 16:33	250	250	05/17/23 16:33	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	44.44	Feet		05/16/23 13:36	1		05/16/23 13:36	FIELD	Field*
Dissolved oxygen, Field	2.0	mg/L		05/16/23 13:36	1		05/16/23 13:36	FIELD	Field*
Oxidation Reduction Potential	-13.0	mV		05/16/23 13:36	1	-500	05/16/23 13:36	FIELD	Field*
pH, Field Measured	6.66	pH Units		05/16/23 13:36	1		05/16/23 13:36	FIELD	Field*
Specific Conductance, Field Measured	3070	umhos/cm		05/16/23 13:36	1		05/16/23 13:36	FIELD	Field*
Temperature, Field Measured	62.6	°F		05/16/23 13:36	1		05/16/23 13:36	FIELD	Field*
Temperature, Field Measured	17.0	°C		05/16/23 13:36	1		05/16/23 13:36	FIELD	Field*
Turbidity, Field Measured	41.0	NTU		05/16/23 13:36	1	0.00	05/16/23 13:36	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	550	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2900	mg/L		05/23/23 16:50	1	26	05/23/23 17:49	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 09:31	JMW	EPA 6020A
Arsenic	2.4	ug/L		05/22/23 09:19	5	1.0	05/26/23 11:41	JMW	EPA 6020A
Barium	49	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:31	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:31	JMW	EPA 6020A
Boron	19000	ug/L		05/22/23 09:19	100	200	05/26/23 12:20	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 11:41	JMW	EPA 6020A
Calcium	310	mg/L		05/22/23 09:19	5	0.20	05/26/23 11:41	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/22/23 09:19	5	4.0	05/26/23 11:41	JMW	EPA 6020A
Cobalt	2.1	ug/L		05/22/23 09:19	5	2.0	05/26/23 11:41	JMW	EPA 6020A
Lead	1.2	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:31	JMW	EPA 6020A
Magnesium	160	mg/L		05/22/23 09:19	5	0.10	05/26/23 11:41	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 09:31	JMW	EPA 6020A
Molybdenum	3.9	ug/L		05/22/23 09:19	5	1.0	05/26/23 11:41	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE03266-07

Name: OR03D

Matrix: Ground Water - Grab

Sampled: 05/16/23 13:36

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	8.2	mg/L		05/22/23 09:19	5	0.10	05/26/23 11:41	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 11:41	JMW	EPA 6020A
Sodium	160	mg/L		05/22/23 09:19	5	0.10	05/26/23 11:41	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:31	JMW	EPA 6020A
Lithium	0.030	mg/L		05/22/23 09:19	1	0.020	05/23/23 11:02	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03266-08
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 05/16/23 10:55

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1100	mg/L		05/17/23 18:58	250	250	05/17/23 18:58	CRD	EPA 300.0 REV 2.1
Sulfate	1100	mg/L		05/17/23 18:58	250	250	05/17/23 18:58	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.22	Feet		05/16/23 10:55	1		05/16/23 10:55	FIELD	Field*
Dissolved oxygen, Field	1.1	mg/L		05/16/23 10:55	1		05/16/23 10:55	FIELD	Field*
Oxidation Reduction Potential	-15.4	mV		05/16/23 10:55	1	-500	05/16/23 10:55	FIELD	Field*
pH, Field Measured	6.63	pH Units		05/16/23 10:55	1		05/16/23 10:55	FIELD	Field*
Specific Conductance, Field Measured	5865	umhos/cm		05/16/23 10:55	1		05/16/23 10:55	FIELD	Field*
Temperature, Field Measured	17.0	°C		05/16/23 10:55	1		05/16/23 10:55	FIELD	Field*
Temperature, Field Measured	62.6	°F		05/16/23 10:55	1		05/16/23 10:55	FIELD	Field*
Turbidity, Field Measured	221	NTU		05/16/23 10:55	1	0.00	05/16/23 10:55	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	460	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 11:51	1	0.250	05/24/23 11:51	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4200	mg/L		05/23/23 16:50	1	26	05/23/23 17:49	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 09:33	JMW	EPA 6020A
Arsenic	2.8	ug/L		05/22/23 09:19	5	1.0	05/26/23 11:45	JMW	EPA 6020A
Barium	39	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:33	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:33	JMW	EPA 6020A
Boron	92000	ug/L		05/22/23 09:19	100	200	05/26/23 12:24	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 11:45	JMW	EPA 6020A
Calcium	730	mg/L		05/22/23 09:19	100	4.0	05/26/23 12:24	JMW	EPA 6020A
Chromium	4.9	ug/L		05/22/23 09:19	5	4.0	05/26/23 11:45	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:19	5	2.0	05/26/23 11:45	JMW	EPA 6020A
Lead	1.4	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:33	JMW	EPA 6020A
Magnesium	260	mg/L		05/22/23 09:19	5	0.10	05/26/23 11:45	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 09:33	JMW	EPA 6020A
Molybdenum	4.5	ug/L		05/22/23 09:19	5	1.0	05/26/23 11:45	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE03266-08

Name: OR04D

Matrix: Ground Water - Grab

Sampled: 05/16/23 10:55

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	13	mg/L		05/22/23 09:19	5	0.10	05/26/23 11:45	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 11:45	JMW	EPA 6020A
Sodium	210	mg/L		05/22/23 09:19	5	0.10	05/26/23 11:45	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:33	JMW	EPA 6020A
Lithium	0.059	mg/L		05/22/23 09:19	1	0.020	05/23/23 11:03	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03618-01

Name: OM07

Matrix: Ground Water - Grab

Sampled: 05/17/23 12:13

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	11	mg/L	Q4	05/22/23 21:20	5	5.0	05/22/23 21:20	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		05/18/23 15:56	1	0.250	05/18/23 15:56	CRD	EPA 300.0 REV 2.1
Sulfate	190	mg/L		05/18/23 17:00	25	25	05/18/23 17:00	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.18	Feet		05/17/23 12:13	1		05/17/23 12:13	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		05/17/23 12:13	1		05/17/23 12:13	FIELD	Field*
Oxidation Reduction Potential	114	mV		05/17/23 12:13	1	-500	05/17/23 12:13	FIELD	Field*
pH, Field Measured	6.93	pH Units		05/17/23 12:13	1		05/17/23 12:13	FIELD	Field*
Specific Conductance, Field Measured	1080	umhos/cm		05/17/23 12:13	1		05/17/23 12:13	FIELD	Field*
Temperature, Field Measured	60.7	°F		05/17/23 12:13	1		05/17/23 12:13	FIELD	Field*
Temperature, Field Measured	15.9	°C		05/17/23 12:13	1		05/17/23 12:13	FIELD	Field*
Turbidity, Field Measured	125	NTU		05/17/23 12:13	1	0.00	05/17/23 12:13	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	510	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	700	mg/L		05/23/23 15:07	1	26	05/23/23 16:07	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 09:38	JMW	EPA 6020A
Arsenic	3.5	ug/L		05/22/23 09:19	5	1.0	05/26/23 12:30	JMW	EPA 6020A
Barium	370	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:38	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:38	JMW	EPA 6020A
Boron	460	ug/L		05/22/23 09:19	5	10	05/26/23 12:30	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 12:30	JMW	EPA 6020A
Calcium	170	mg/L	Q4	05/22/23 09:19	5	0.20	05/26/23 12:30	JMW	EPA 6020A
Chromium	7.8	ug/L		05/22/23 09:19	5	4.0	05/26/23 12:30	JMW	EPA 6020A
Cobalt	15	ug/L		05/22/23 09:19	5	2.0	05/26/23 12:30	JMW	EPA 6020A
Lead	7.5	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:38	JMW	EPA 6020A
Magnesium	89	mg/L	Q4	05/22/23 09:19	5	0.10	05/26/23 12:30	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 09:38	JMW	EPA 6020A
Molybdenum	11	ug/L		05/22/23 09:19	5	1.0	05/26/23 12:30	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE03618-01

Name: OM07

Matrix: Ground Water - Grab

Sampled: 05/17/23 12:13

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	1.9	mg/L		05/22/23 09:19	5	0.10	05/26/23 12:30	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 12:30	JMW	EPA 6020A
Sodium	57	mg/L	Q4	05/22/23 09:19	5	0.10	05/26/23 12:30	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:38	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:19	1	0.020	05/23/23 11:09	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03618-02
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 05/17/23 16:55
Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	890	mg/L		05/18/23 18:04	100	100	05/18/23 18:04	CRD	EPA 300.0 REV 2.1
Sulfate	760	mg/L		05/18/23 18:04	100	100	05/18/23 18:04	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	17.85	Feet		05/17/23 16:55	1		05/17/23 16:55	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		05/17/23 16:55	1		05/17/23 16:55	FIELD	Field*
Oxidation Reduction Potential	33.0	mV		05/17/23 16:55	1	-500	05/17/23 16:55	FIELD	Field*
pH, Field Measured	6.69	pH Units		05/17/23 16:55	1		05/17/23 16:55	FIELD	Field*
Specific Conductance, Field Measured	3600	umhos/cm		05/17/23 16:55	1		05/17/23 16:55	FIELD	Field*
Temperature, Field Measured	14.5	°C		05/17/23 16:55	1		05/17/23 16:55	FIELD	Field*
Temperature, Field Measured	58.1	°F		05/17/23 16:55	1		05/17/23 16:55	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		05/17/23 16:55	1	0.00	05/17/23 16:55	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	340	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 11:54	1	0.250	05/24/23 11:54	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3300	mg/L		05/23/23 15:07	1	26	05/23/23 16:07	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 09:40	JMW	EPA 6020A
Arsenic	15	ug/L		05/22/23 09:19	5	1.0	05/26/23 12:34	JMW	EPA 6020A
Barium	240	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:40	JMW	EPA 6020A
Beryllium	< 20	ug/L		05/22/23 09:19	100	20	05/26/23 14:47	JMW	EPA 6020A
Boron	55000	ug/L		05/22/23 09:19	100	300	05/26/23 14:47	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 12:34	JMW	EPA 6020A
Calcium	610	mg/L		05/22/23 09:19	100	4.0	05/26/23 14:47	JMW	EPA 6020A
Chromium	39	ug/L		05/22/23 09:19	5	4.0	05/26/23 12:34	JMW	EPA 6020A
Cobalt	22	ug/L		05/22/23 09:19	5	2.0	05/26/23 12:34	JMW	EPA 6020A
Lead	17	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:40	JMW	EPA 6020A
Magnesium	170	mg/L		05/22/23 09:19	5	0.10	05/26/23 12:34	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 09:40	JMW	EPA 6020A
Molybdenum	100	ug/L		05/22/23 09:19	5	1.0	05/26/23 12:34	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE03618-02

Name: OM22D

Matrix: Ground Water - Grab

Sampled: 05/17/23 16:55

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	12	mg/L		05/22/23 09:19	5	0.10	05/26/23 12:34	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 12:34	JMW	EPA 6020A
Sodium	170	mg/L		05/22/23 09:19	5	0.10	05/26/23 12:34	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 09:40	JMW	EPA 6020A
Lithium	0.070	mg/L		05/22/23 09:19	1	0.020	05/23/23 11:10	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03618-03
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 05/17/23 13:45
Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	590	mg/L		05/18/23 19:51	100	100	05/18/23 19:51	CRD	EPA 300.0 REV 2.1
Sulfate	700	mg/L		05/18/23 19:51	100	100	05/18/23 19:51	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.77	Feet		05/17/23 13:45	1		05/17/23 13:45	FIELD	Field*
Dissolved oxygen, Field	1.1	mg/L		05/17/23 13:45	1		05/17/23 13:45	FIELD	Field*
Oxidation Reduction Potential	-1.00	mV		05/17/23 13:45	1	-500	05/17/23 13:45	FIELD	Field*
pH, Field Measured	6.63	pH Units		05/17/23 13:45	1		05/17/23 13:45	FIELD	Field*
Specific Conductance, Field Measured	2510	umhos/cm		05/17/23 13:45	1		05/17/23 13:45	FIELD	Field*
Temperature, Field Measured	15.8	°C		05/17/23 13:45	1		05/17/23 13:45	FIELD	Field*
Temperature, Field Measured	60.5	°F		05/17/23 13:45	1		05/17/23 13:45	FIELD	Field*
Turbidity, Field Measured	444	NTU		05/17/23 13:45	1	0.00	05/17/23 13:45	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	380	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/24/23 11:55	1	0.250	05/24/23 11:55	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2700	mg/L		05/23/23 15:07	1	26	05/23/23 16:07	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 11:57	JMW	EPA 6020A
Arsenic	9.3	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:20	JMW	EPA 6020A
Barium	59	ug/L		05/22/23 09:19	5	1.0	05/30/23 10:07	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:20	JMW	EPA 6020A
Boron	67000	ug/L		05/22/23 09:19	100	300	05/26/23 14:51	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:20	JMW	EPA 6020A
Calcium	510	mg/L		05/22/23 09:19	100	4.0	05/26/23 14:51	JMW	EPA 6020A
Chromium	5.4	ug/L		05/22/23 09:19	5	4.0	05/26/23 14:20	JMW	EPA 6020A
Cobalt	3.3	ug/L		05/22/23 09:19	5	2.0	05/26/23 14:20	JMW	EPA 6020A
Lead	2.1	ug/L		05/22/23 09:19	5	1.0	05/30/23 11:57	JMW	EPA 6020A
Magnesium	160	mg/L		05/22/23 09:19	5	0.10	05/26/23 14:20	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 10:07	JMW	EPA 6020A
Molybdenum	66	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:20	JMW	EPA 6020A



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ANALYTICAL RESULTS

Sample: GE03618-03

Name: OR06A

Matrix: Ground Water - Grab

Sampled: 05/17/23 13:45

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	2.8	mg/L		05/22/23 09:19	5	0.10	05/26/23 14:20	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:20	JMW	EPA 6020A
Sodium	92	mg/L		05/22/23 09:19	5	0.10	05/26/23 14:20	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 11:57	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:19	1	0.020	05/23/23 11:41	TJJ	EPA 6010B



ANALYTICAL RESULTS

Sample: GE03618-04
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 05/17/23 15:20

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	38	mg/L		05/18/23 20:33	10	10	05/18/23 20:33	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		05/18/23 20:12	1	0.250	05/18/23 20:12	CRD	EPA 300.0 REV 2.1
Sulfate	860	mg/L		05/18/23 20:55	100	100	05/18/23 20:55	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.95	Feet		05/17/23 15:20	1		05/17/23 15:20	FIELD	Field*
Dissolved oxygen, Field	1.9	mg/L		05/17/23 15:20	1		05/17/23 15:20	FIELD	Field*
Oxidation Reduction Potential	-23.0	mV		05/17/23 15:20	1	-500	05/17/23 15:20	FIELD	Field*
pH, Field Measured	6.82	pH Units		05/17/23 15:20	1		05/17/23 15:20	FIELD	Field*
Specific Conductance, Field Measured	1960	umhos/cm		05/17/23 15:20	1		05/17/23 15:20	FIELD	Field*
Temperature, Field Measured	16.3	°C		05/17/23 15:20	1		05/17/23 15:20	FIELD	Field*
Temperature, Field Measured	61.3	°F		05/17/23 15:20	1		05/17/23 15:20	FIELD	Field*
Turbidity, Field Measured	56.1	NTU		05/17/23 15:20	1	0.00	05/17/23 15:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		05/26/23 08:48	1	10	05/26/23 08:48	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1800	mg/L		05/23/23 15:07	1	26	05/23/23 16:07	HRF	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		05/22/23 09:19	5	3.0	05/30/23 12:00	JMW	EPA 6020A
Arsenic	8.5	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:24	JMW	EPA 6020A
Barium	25	ug/L		05/22/23 09:19	5	1.0	05/30/23 10:10	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:24	JMW	EPA 6020A
Boron	3700	ug/L		05/22/23 09:19	5	15	05/26/23 14:24	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:24	JMW	EPA 6020A
Calcium	330	mg/L		05/22/23 09:19	5	0.20	05/26/23 14:24	JMW	EPA 6020A
Chromium	< 4.0	ug/L		05/22/23 09:19	5	4.0	05/26/23 14:24	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		05/22/23 09:19	5	2.0	05/26/23 14:24	JMW	EPA 6020A
Lead	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 12:00	JMW	EPA 6020A
Magnesium	140	mg/L		05/22/23 09:19	5	0.10	05/26/23 14:24	JMW	EPA 6020A
Mercury	< 0.20	ug/L		05/22/23 09:19	5	0.20	05/30/23 10:10	JMW	EPA 6020A
Molybdenum	8.1	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:24	JMW	EPA 6020A



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

ANALYTICAL RESULTS

Sample: GE03618-04

Name: OR13S

Matrix: Ground Water - Grab

Sampled: 05/17/23 15:20

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	3.2	mg/L		05/22/23 09:19	5	0.10	05/26/23 14:24	JMW	EPA 6020A
Selenium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/26/23 14:24	JMW	EPA 6020A
Sodium	50	mg/L		05/22/23 09:19	5	0.10	05/26/23 14:24	JMW	EPA 6020A
Thallium	< 1.0	ug/L		05/22/23 09:19	5	1.0	05/30/23 12:00	JMW	EPA 6020A
Lithium	< 0.020	mg/L		05/22/23 09:19	1	0.020	05/23/23 11:42	TJJ	EPA 6010B



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B333386 - SW 3015 - EPA 6010B</u>									
Blank (B333386-BLK1)				Prepared: 05/15/23 Analyzed: 05/16/23					
Lithium	< 0.020	mg/L							
LCS (B333386-BS1)				Prepared: 05/15/23 Analyzed: 05/16/23					
Lithium	0.539	mg/L		0.5556		97	80-120		
<u>Batch B333386 - SW 3015 - EPA 6020A</u>									
Blank (B333386-BLK1)				Prepared: 05/15/23 Analyzed: 05/22/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B333386-BS1)				Prepared: 05/15/23 Analyzed: 05/22/23					
Antimony	502	ug/L		555.6		90	80-120		
Arsenic	494	ug/L		555.6		89	80-120		
Barium	489	ug/L		555.6		88	80-120		
Beryllium	480	ug/L		555.6		86	80-120		
Boron	482	ug/L		555.6		87	80-120		
Cadmium	497	ug/L		555.6		89	80-120		
Calcium	5.14	mg/L		5.556		93	80-120		
Chromium	523	ug/L		555.6		94	80-120		
Cobalt	504	ug/L		555.6		91	80-120		
Lead	465	ug/L		555.6		84	80-120		
Magnesium	5.06	mg/L		5.556		91	80-120		
Mercury	46.0	ug/L		55.56		83	80-120		
Molybdenum	484	ug/L		555.6		87	80-120		
Potassium	5.14	mg/L		5.556		93	80-120		
Selenium	524	ug/L		555.6		94	80-120		
Sodium	5.11	mg/L		5.556		92	80-120		
Thallium	487	ug/L		555.6		88	80-120		
<u>Batch B333464 - SW 3015 - EPA 6010B</u>									
Blank (B333464-BLK1)				Prepared & Analyzed: 05/16/23					



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B333464-BLK1)				Prepared & Analyzed: 05/16/23					
Lithium	< 0.020	mg/L							
LCS (B333464-BS1)				Prepared & Analyzed: 05/16/23					
Lithium	0.515	mg/L		0.5556		93	80-120		
<u>Batch B333464 - SW 3015 - EPA 6020A</u>									
Blank (B333464-BLK1)				Prepared: 05/16/23 Analyzed: 05/19/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B333464-BS1)				Prepared: 05/16/23 Analyzed: 05/19/23					
Antimony	1070	ug/L		1111		96	80-120		
Arsenic	544	ug/L		555.6		98	80-120		
Barium	544	ug/L		555.6		98	80-120		
Beryllium	546	ug/L		555.6		98	80-120		
Boron	1080	ug/L		1111		97	80-120		
Cadmium	542	ug/L		555.6		98	80-120		
Calcium	5.58	mg/L		5.556		101	80-120		
Chromium	564	ug/L		555.6		102	80-120		
Cobalt	559	ug/L		555.6		101	80-120		
Lead	499	ug/L		555.6		90	80-120		
Magnesium	5.39	mg/L		5.556		97	80-120		
Mercury	53.4	ug/L		55.56		96	80-120		
Molybdenum	528	ug/L		555.6		95	80-120		
Potassium	5.55	mg/L		5.556		100	80-120		
Selenium	542	ug/L		555.6		97	80-120		
Sodium	5.65	mg/L		5.556		102	80-120		
Thallium	549	ug/L		555.6		99	80-120		
<u>Batch B333629 - No Prep - SM 2540C</u>									
Blank (B333629-BLK1)				Prepared & Analyzed: 05/17/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B333629-BS1)				Prepared & Analyzed: 05/17/23					
Solids - total dissolved solids (TDS)	1030	mg/L		1000		103	84.9-109		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B333648 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B333648-MS2)		Sample: GE02997-11		Prepared & Analyzed: 05/16/23					
Sulfate	1.00E10	mg/L	Q4	15.00	1210	NR	80-120		
Chloride	1.0E10	mg/L	Q4	15.00	220	NR	80-120		
Matrix Spike Dup (B333648-MSD2)		Sample: GE02997-11		Prepared & Analyzed: 05/16/23					
Sulfate	1.00E10	mg/L	Q4	15.00	1210	NR	80-120	0	20
Chloride	1.0E10	mg/L	Q4	15.00	220	NR	80-120	0	20
<u>Batch B333818 - No Prep - SM 2540C</u>									
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		
<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		
Duplicate (B333887-DUP2)		Sample: GE02997-11		Prepared & Analyzed: 05/19/23					
Solids - total dissolved solids (TDS)	2800	mg/L			2780			0.9	5
<u>Batch B333894 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B333894-MS2)		Sample: GE03618-01		Prepared & Analyzed: 05/18/23					
Fluoride	1.67	mg/L		1.500	0.244	95	80-120		
Matrix Spike Dup (B333894-MSD2)		Sample: GE03618-01		Prepared & Analyzed: 05/18/23					
Fluoride	1.57	mg/L		1.500	0.244	89	80-120	6	20
<u>Batch B333906 - No Prep - SM 2320B 1997</u>									
Blank (B333906-BLK1)		Prepared & Analyzed: 05/19/23							
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Blank (B333906-BLK2)		Prepared & Analyzed: 05/19/23							
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
<u>Batch B333977 - SW 3015 - EPA 6010B</u>									
Blank (B333977-BLK1)		Prepared: 05/22/23 Analyzed: 05/23/23							
Lithium	< 0.020	mg/L							
LCS (B333977-BS1)		Prepared: 05/22/23 Analyzed: 05/23/23							
Lithium	0.551	mg/L		0.5556		99	80-120		
<u>Batch B333977 - SW 3015 - EPA 6020A</u>									
Blank (B333977-BLK1)		Prepared: 05/22/23 Analyzed: 05/24/23							
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B333977-BLK1)				Prepared: 05/22/23 Analyzed: 05/23/23					
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L	Ba						
Selenium	< 1.0	ug/L							
Sodium	0.126	mg/L	B						
Thallium	< 1.0	ug/L							
LCS (B333977-BS1)				Prepared: 05/22/23 Analyzed: 05/24/23					
Antimony	538	ug/L		555.6		97	80-120		
Arsenic	542	ug/L		555.6		98	80-120		
Barium	531	ug/L		555.6		96	80-120		
Beryllium	538	ug/L		555.6		97	80-120		
Boron	548	ug/L		555.6		99	80-120		
Cadmium	536	ug/L		555.6		97	80-120		
Calcium	5.48	mg/L		5.556		99	80-120		
Chromium	545	ug/L		555.6		98	80-120		
Cobalt	531	ug/L		555.6		96	80-120		
Lead	545	ug/L		555.6		98	80-120		
Magnesium	5.66	mg/L		5.556		102	80-120		
Mercury	51.8	ug/L		55.56		93	80-120		
Molybdenum	521	ug/L		555.6		94	80-120		
Potassium	5.59	mg/L		5.556		101	80-120		
Selenium	545	ug/L		555.6		98	80-120		
Sodium	5.59	mg/L		5.556		101	80-120		
Thallium	528	ug/L		555.6		95	80-120		
<u>Batch B333979 - SW 3015 - EPA 6010B</u>									
Blank (B333979-BLK1)				Prepared: 05/22/23 Analyzed: 05/23/23					
Lithium	< 0.020	mg/L							
LCS (B333979-BS1)				Prepared: 05/22/23 Analyzed: 05/23/23					
Lithium	0.567	mg/L		0.5556		102	80-120		
<u>Batch B333979 - SW 3015 - EPA 6020A</u>									
Blank (B333979-BLK1)				Prepared: 05/22/23 Analyzed: 05/30/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B333979-BLK1)				Prepared: 05/22/23 Analyzed: 05/26/23					
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B333979-BS1)				Prepared: 05/22/23 Analyzed: 05/30/23					
Antimony	590	ug/L		555.6		106	80-120		
Arsenic	598	ug/L		555.6		108	80-120		
Barium	578	ug/L		555.6		104	80-120		
Beryllium	580	ug/L		555.6		104	80-120		
Boron	592	ug/L		555.6		106	80-120		
Cadmium	591	ug/L		555.6		106	80-120		
Calcium	6.18	mg/L		5.556		111	80-120		
Chromium	605	ug/L		555.6		109	80-120		
Cobalt	608	ug/L		555.6		110	80-120		
Lead	593	ug/L		555.6		107	80-120		
Magnesium	6.20	mg/L		5.556		112	80-120		
Mercury	55.7	ug/L		55.56		100	80-120		
Molybdenum	571	ug/L		555.6		103	80-120		
Potassium	6.09	mg/L		5.556		110	80-120		
Selenium	608	ug/L		555.6		109	80-120		
Sodium	6.01	mg/L		5.556		108	80-120		
Thallium	599	ug/L		555.6		108	80-120		
Post Spike (B333979-PS1)				Sample: GE03618-01		Prepared: 05/22/23 Analyzed: 05/30/23			
Antimony	535	ug/L		500.0	0.255	107	80-120		
Arsenic	493	ug/L		500.0	3.14	98	80-120		
Barium	814	ug/L		500.0	333	96	80-120		
Beryllium	454	ug/L		500.0	0.175	91	80-120		
Boron	928	ug/L		500.0	418	102	80-120		
Cadmium	512	ug/L		500.0	0.470	102	80-120		
Calcium	143000	ug/L	Q4	5000	155000	NR	80-120		
Chromium	522	ug/L		500.0	7.00	103	80-120		
Cobalt	511	ug/L		500.0	13.9	99	80-120		
Lead	509	ug/L		500.0	6.74	100	80-120		
Magnesium	75500	ug/L	Q4	5000	79700	NR	80-120		
Mercury	52.1	ug/L		50.00	0.110	104	80-120		
Molybdenum	520	ug/L		500.0	10.0	102	80-120		
Potassium	6490	ug/L		5000	1740	95	80-120		
Selenium	500	ug/L		500.0	0.265	100	80-120		
Sodium	51600	ug/L	Q4	5000	51700	NR	80-120		
Thallium	529	ug/L		500.0	0.110	106	80-120		

Batch B334122 - 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
Matrix Spike (B334122-MS1)				Sample: GE03618-01		Prepared & Analyzed: 05/22/23			
Chloride	1.0E9	mg/L	Q4	1.500	11	NR	80-120		
Matrix Spike Dup (B334122-MSD1)				Sample: GE03618-01		Prepared & Analyzed: 05/22/23			
Chloride	1.0E9	mg/L	Q4	1.500	11	NR	80-120	0	20
<u>Batch B334147 - No Prep - SM 2540C</u>									
Blank (B334147-BLK1)				Prepared & Analyzed: 05/23/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B334147-BS1)				Prepared & Analyzed: 05/23/23					
Solids - total dissolved solids (TDS)	933	mg/L		1000		93	84.9-109		
Duplicate (B334147-DUP1)				Sample: GE03618-01		Prepared & Analyzed: 05/23/23			
Solids - total dissolved solids (TDS)	725	mg/L			705			3	5
<u>Batch B334170 - No Prep - SM 2540C</u>									
Blank (B334170-BLK1)				Prepared & Analyzed: 05/23/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B334170-BS1)				Prepared & Analyzed: 05/23/23					
Solids - total dissolved solids (TDS)	937	mg/L		1000		94	84.9-109		
<u>Batch B334267 - No Prep - SM 2320B 1997</u>									
Duplicate (B334267-DUP3)				Sample: GE02997-11		Prepared & Analyzed: 05/24/23			
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	625	mg/L			625			0	10
<u>Batch B334473 - No Prep - SM 2320B 1997</u>									
Duplicate (B334473-DUP1)				Sample: GE03266-02		Prepared & Analyzed: 05/26/23			
Alkalinity - bicarbonate as CaCO ₃	562	mg/L			550			2	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B334473-DUP2)				Sample: GE03266-07		Prepared & Analyzed: 05/26/23			
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	538	mg/L			550			2	10
Duplicate (B334473-DUP3)				Sample: GE03618-01		Prepared & Analyzed: 05/26/23			
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	512	mg/L			512			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

B Present in the method blank at 126 ug/L.

Ba Present in the method blank at 232 ug/L.

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

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</u> Address: <u>13498 E. 900th St</u>		Section B Required Project Information: Report To: <u>Brian Voelker</u> Copy To: <u>Jason Stuckey</u>		Section C Invoice Information: Attention: <u>Jason Stuckey</u> Company Name: <u>Visira Corp</u> Address: <u>see Section A</u>	
Email To: <u>Brian.Voelker@VisiraCorp.com</u> Phone: (217) 763-8911 Fax: _____		Purchase Order No.: _____ Project Name: _____ Project Number: <u>2285</u>		Quote Reference: _____ Project Manager: _____ Profile #: _____	
Requested Due Date/TAT: <u>10 day</u>		Regulatory Agency: _____ NPDES: _____ GROUND WATER: _____ DRINKING WATER: _____ UST: _____ RCRA: _____ OTHER: _____			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WT WASTE WATER WW PRODUCT P SOLID/SOLID S OIL O WIRE W WIRE W OTHER OT TISSE 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 ↑	Requested Analysis Filtered (Y/N)												Residual Chlorine (Y/N)	Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
					DATE	TIME					DC_267_203	DC_267_204	DC_257_206	DC_811_204	DC_845_201-202	DC_845_203	DC_845_205	DC_CLOSURE_201-202	DC_SUP_000	DC_WPCP_203-206																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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ADDITIONAL COMMENTS <u>DC-23Q2-Rev 0</u>		RELINQUISHED BY / AFFILIATION <u>Jason Stuckey</u>	DATE <u>5/10/23</u>	TIME <u>1720</u>	ACCEPTED BY / AFFILIATION <u>Jason Stuckey</u>	DATE <u>5/10/23</u>	TIME <u>1720</u>	Temp in °C <u>3.3</u>	Received on (Y/N) <u>Y</u>	Custody Sealed Cooler (Y/N) <u>Y</u>	Samples Intact (Y/N) <u>Y</u>
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CHAIN-OF-CUSTODY / Analytical Request Document

Section A
Required Client Information:

Company: Vistra Corp	Report To: Brian Voelker	Invoice Information: 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/AT: 10 day	Project Number: 2285	Project Manager:
		Profile #:

Section B
Required Project Information:

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

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WT PRODUCT P ROILSOLID SL OIL OL WIFE WIFE OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	COLLECTED DATE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ SO ₃ Methanol Other	Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
1	DC_G081L																	
2	DC_G081L																	
3	DC_G121L																	
4	DC_G12#S																	
5	DC_G141L																	
6	DC_G151L																	
7	DC_G161L																	
8	DC_G501L																	
9	DC_G50#S																	
10	DC_G511L																	
11	DC_G51#S																	
12	DC_G521L																	
13	DC_G52#S																	
14	DC_G531L																	
15	DC_G53#S																	
16	DC_G541L																	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-23Q2-Rev 0	Jason Stuckey	5/10/23	1720	Jason Stuckey	5-10-23	1720	Temp in °C 33 Received on Ice (Y/N) Y Custody Sealed Cooler (Y/N) N Samples Intact (Y/N) Y

SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY): 5/10/23
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CHAIN-OF-CUSTODY / Analytical Request Document

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:		Quota Reference:	
	Fax:	Project Number:	2285	Project Manager:	
Requested Due Date/TAT:	10 day			Profile #:	

Section D Required Client Information		Valid Matrix Codes		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.																					
ITEM #	MATRIX CODE	DRINKING WATER	DW	WASTE WATER	WW	PRODUCT	P	SOIL/SOLID	SL	WATER	WT	WIFE	W	OTHER	OT	TS	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_G62IL																																		
16	DC_G63IL																																		
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS																					
DC-23Q2-Rev 0		Jason R. Reed		5/10/23		1720		Jason R. Reed		5-10-23		1720		Y N Y																					

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Jason R. Reed
SIGNATURE of SAMPLER:	Jason R. Reed
DATE Signed (MM/DD/YYYY):	5/10/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

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:
Fax:	Project Number: 2285	Project Manager:
Requested Due Date/TAT: 10 day		Profile #:

Section D Required Client Information		Valid Matrix Codes		MATRIX CODE		SAMPLE TYPE (G=GRAB G-COMP)		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		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
1	DC_OM04#S		DC_OM04#S		DC_OM04#S		DC_OM04#S		DC_OM04#S		DC_OM04#S		DC_OM04#S		DC_OM04#S		DC_OM04#S
2	DC_OM05#S		DC_OM05#S		DC_OM05#S		DC_OM05#S		DC_OM05#S		DC_OM05#S		DC_OM05#S		DC_OM05#S		DC_OM05#S
3	DC_OM07		DC_OM07		DC_OM07		DC_OM07		DC_OM07		DC_OM07		DC_OM07		DC_OM07		DC_OM07
4	DC_OM08		DC_OM08		DC_OM08		DC_OM08		DC_OM08		DC_OM08		DC_OM08		DC_OM08		DC_OM08
5	DC_OM09		DC_OM09		DC_OM09		DC_OM09		DC_OM09		DC_OM09		DC_OM09		DC_OM09		DC_OM09
6	DC_OM10		DC_OM10		DC_OM10		DC_OM10		DC_OM10		DC_OM10		DC_OM10		DC_OM10		DC_OM10
7	DC_OM12		DC_OM12		DC_OM12		DC_OM12		DC_OM12		DC_OM12		DC_OM12		DC_OM12		DC_OM12
8	DC_OM15		DC_OM15		DC_OM15		DC_OM15		DC_OM15		DC_OM15		DC_OM15		DC_OM15		DC_OM15
9	DC_OM16		DC_OM16		DC_OM16		DC_OM16		DC_OM16		DC_OM16		DC_OM16		DC_OM16		DC_OM16
10	DC_OM17		DC_OM17		DC_OM17		DC_OM17		DC_OM17		DC_OM17		DC_OM17		DC_OM17		DC_OM17
11	DC_OM21		DC_OM21		DC_OM21		DC_OM21		DC_OM21		DC_OM21		DC_OM21		DC_OM21		DC_OM21
12	DC_OM22#S		DC_OM22#S		DC_OM22#S		DC_OM22#S		DC_OM22#S		DC_OM22#S		DC_OM22#S		DC_OM22#S		DC_OM22#S
13	DC_OM22&D		DC_OM22&D		DC_OM22&D		DC_OM22&D		DC_OM22&D		DC_OM22&D		DC_OM22&D		DC_OM22&D		DC_OM22&D
14	DC_OM23#S		DC_OM23#S		DC_OM23#S		DC_OM23#S		DC_OM23#S		DC_OM23#S		DC_OM23#S		DC_OM23#S		DC_OM23#S
15	DC_OM23&D		DC_OM23&D		DC_OM23&D		DC_OM23&D		DC_OM23&D		DC_OM23&D		DC_OM23&D		DC_OM23&D		DC_OM23&D
16	DC_OM24&D		DC_OM24&D		DC_OM24&D		DC_OM24&D		DC_OM24&D		DC_OM24&D		DC_OM24&D		DC_OM24&D		DC_OM24&D

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
DC-23Q2-Rev 0		Jason Stuckey		5/10/23		17:20		Jason Stuckey		5/10/23		17:20		Y N Y	
SAMPALER NAME AND SIGNATURE PRINT Name of SAMPALER: Jason Stuckey SIGNATURE of SAMPALER: Jason Stuckey															
DATE Signed (MM/DD/YYYY): 5/10/23															

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:	Section B Required Project Information:	Section C Invoice Information:
Company: Visira Corp	Report To: Brian Voelker	Attention: Jason Stuckey
Page: 6	of	9

Email To: **Brian.Voelker@VistraCorp.com** Purchase Order No.:
 Phone: (217) 753-8911 Fax:
 Requested Due Date/TAT: **10 day**

Project Name:
 Project Number: 2285

Quote Reference:
 Project Manager:
 Profile #:

UST RCRA OTHER

Site Location
 STATE: IL

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WWT WASTE WATER WW PRODUCT P SOLID S OIL OL WIRE WP AIR AR OTHER OT TASTE 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_203	DC_257_204		DC_267_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)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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SAMPPLER NAME AND SIGNATURE
 PRINT Name of SAMPPLER: **Jason R Reed**
 SIGNATURE of SAMPPLER: **Jason R Reed**
 DATE Signed (MM/DD/YY): **5/10/23**

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: **Vistra Corp**
 Address: **13498 E. 900th St**
 Email To: **Brian.Voelker@VistraCorp.com**

Section B
 Required Project Information:
 Report To: **Brian Voelker**
 Copy To: **Jason Stuckey**
 Purchase Order No.:

Section C
 Invoice Information:
 Attention: **Jason Stuckey**
 Company Name: **Vistra Corp**
 Address: **see Section A**
 Quote Reference:

Regulatory Agency:
 NPDES UST RCRA GROUND WATER DRINKING WATER OTHER

Page: **9** of **9**

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 Required Client Information: Company: <u>Visira Corp</u> Address: <u>13498 E. 900th St</u>		Section B Required Project Information: Report To: <u>Brian Voelker</u> Copy To: <u>Jason Stuckey</u>		Section C Invoice Information: Attention: <u>Jason Stuckey</u> Company Name: <u>Visira Corp</u> Address: <u>see Section A</u>	
Email To: <u>Brian.Voelker@VisiraCorp.com</u> Phone: (217) 753-8811 Fax: _____		Purchase Order No.: _____ Project Name: _____ Project Number: <u>2285</u>		Regulatory Agency: NPDES _____ GROUND WATER _____ DRINKING WATER _____ UST _____ RCRA _____ OTHER _____ State Location: _____ IL _____ STATE: <u>GEORGIA</u>	
Requested Due Date/TAT: <u>10 day</u>					

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 WP 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)									
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																	

Section E ADDITIONAL COMMENTS <u>DC-23Q2-Rev 0</u>		RELINQUISHED BY / AFFILIATION <u>Jason R Reed</u>	DATE <u>5/12/23</u>	TIME <u>14:31</u>	ACCEPTED BY / AFFILIATION <u>Jason R Reed</u>	DATE <u>5/12/23</u>	TIME <u>14:31</u>	SAMPLE CONDITIONS Received on Ice (Y/N) <u>NO</u> Sealed Cooler (Y/N) <u>NO</u> Samples Intact (Y/N) <u>NO</u>
SAMPLER NAME AND SIGNATURE <u>Jason R Reed</u>		DATE Signed (MM/DD/YYYY): <u>5/12/23</u>		Temp in °C <u>50</u>		Residual Chlorine (Y/N) <u>NO</u>		Project No./ Lab I.D. <u>GEORGIA</u>

CHAIN-OF-CUSTODY / Analytical Request Document

Email To: Brian.Voelker@VistraCorp.com		Address: see Section A		NPDES		GROUND WATER		DRINKING WATER	
Phone: (217) 753-8911		Purchase Order No.:		UST		RCRA		OTHER	
Fax:		Project Name:		Site Location		IL			
Requested Due Date/TAT: 10 day		Project Number: 2285		Profile #:		STATE:			

Section D Required Client Information		Valid Matrix Codes		MATRIX CODE (see wild codes to left)		SAMPLE TYPE (G-GRAB C-COMP)		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		V/N		Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.	
ITEM #	Section D	MATRIX CODE	CODE	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME						
1	DC_P01IL	DRINKING WATER	EW																										
2	DC_P01#S	WASTE WATER	WW																										
3	DC_P01\$I	WASTE WATER	WW																										
4	DC_P02#S	PRODUCT	P																										
5	DC_P04#S	SOIL SOLID	SL																										
6	DC_P05IL	OIL	OL																										
7	DC_P05#S	WIFE	WP																										
8	DC_P05&D	AIR	AK																										
9	DC_P36IL	OTHER	OT																										
10	DC_P36#S	TSUE	TS																										
11	DC_P36&D																												
12	DC_P37IL																												
13	DC_P37&D																												
14	DC_P38IL																												
15	DC_P38#S																												
16	DC_P39IL																												

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YYYY)		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
PRINT Name of SAMPLER:		DATE SIGNED (MM/DD/YYYY):		5/12/23		14:31		graceful		5/12/23		14:31		Temp in °C	
SIGNATURE of SAMPLER:		DATE SIGNED (MM/DD/YYYY):		5/12/23		14:31		graceful		5/12/23		14:31		Received on	
		DATE SIGNED (MM/DD/YYYY):		5/12/23		14:31		graceful		5/12/23		14:31		Custody	
		DATE SIGNED (MM/DD/YYYY):		5/12/23		14:31		graceful		5/12/23		14:31		Sealed Cooler	
		DATE SIGNED (MM/DD/YYYY):		5/12/23		14:31		graceful		5/12/23		14:31		Infect (Y/N)	
		DATE SIGNED (MM/DD/YYYY):		5/12/23		14:31		graceful		5/12/23		14:31		Samples	

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

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 Riedel				
SIGNATURE of SAMPLER:	 DATE Signed (MM/DD/YY): 5/15/23				

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

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

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓ Y/N ↓	Requested Analysis Filtered (Y/N)												Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		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_OM25#S																														
2	DC_OM25&D																														
3	DC_OR02																														
4	DC_OR03#S																														
5	DC_OR03&D																														
6	DC_OR04&D																														
7	DC_OR05&D																														
8	DC_OR06!A																														
9	DC_OR11					5/13/23	1233		11																						
10	DC_OR13#S																														
11	DC_OR13&D																														
12	DC_OR14#S																														
13	DC_OR14&D					5/15/23	1135		11																						
14	DC_OR18																														
15	DC_OR19					5/15/23	1328		11																						
16	DC_OR20					5/15/23	1110		11																						
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION			DATE	TIME	ACCEPTED BY / AFFILIATION			DATE	TIME	SAMPLE CONDITIONS																			
DC-23Q2-Rev 0		Joe Jumper Rad			5/15/23	1800	Van Horn			5-16-23	650	A3	Y	N	Y																

SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <u>Joe Reed</u> SIGNATURE of SAMPLER: <u>[Signature]</u>		Temp in °C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)
DATE Signed (MM/DD/YY): <u>5/15/23</u>		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 7 of 9	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey			
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp		REGULATORY AGENCY 81	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 6 of 9

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

Section D Required Client Information		Valid Matrix Codes		Section E Requested Analysis Filtered (Y/N)		Requested Analysis Filtered (Y/N)	
ITEM #	SAMPLE ID (A-Z, 0-9 / .)	MATRIX CODE	DATE	TIME	DATE	TIME	Project No./ Lab I.D.
1	DC_OM25#S	WT 6	5/16/23	12:14	DC_257_203		
2	DC_OM25&D	WT 6	5/16/23	13:36	DC_257_204		
3	DC_OR02	WT 6	5/16/23	10:55	DC_845_203		
4	DC_OR03#S				DC_845_201-202		
5	DC_OR03&D				DC_811_204		
6	DC_OR04&D				DC_257_206		
7	DC_OR05&D				DC_845_201-202		
8	DC_OR06IA				DC_257_203		
9	DC_OR11				DC_845_203		
10	DC_OR13#S				DC_845_201-202		
11	DC_OR13&D				DC_257_204		
12	DC_OR14#S				DC_845_203		
13	DC_OR14&D				DC_845_201-202		
14	DC_OR18				DC_257_206		
15	DC_OR19				DC_845_203		
16	DC_OR20				DC_845_201-202		

ADDITIONAL COMMENTS		RELIQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
DC-23Q2-Rev 0		[Signature]		05/16/23		1747		[Signature]		5/16/23		17:47		Temp in °C: 5.5	
		[Signature]		05/16/23		1747		[Signature]		5/16/23		17:47		Ice (Y/N): Y	
		[Signature]		05/16/23		1747		[Signature]		5/16/23		17:47		Sealed Cooler (Y/N): Y	
		[Signature]		05/16/23		1747		[Signature]		5/16/23		17:47		Samples Intact (Y/N): Y	

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

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS					
DC-23Q2-Rev 0		5/16/23	1747		5/16/23	17:47	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)		
SAMPLER NAME AND SIGNATURE												
PRINT Name of SAMPLER:							Date Signed (MM/DD/YYYY):					
SIGNATURE of SAMPLER:							05/16/23					

Phone: (217) 753-8911		Fax:		Project Name:		Project Manager:		Site Location		IL															
Requested Due Date/TAT:		10 day		Project Number: 2285		Profile #:		STATE:																	
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.			
SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		MATRIX CODE		DATE		TIME		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS		Received on		Sealed Cooler		Intact (Y/N)	
ITEM #		CODE		DATE		TIME		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS		Received on		Sealed Cooler		Intact (Y/N)	
1	DC_T441L																								
2	DC_T451L																								
3	DC_T461L																								
4	DC_X301_leachate																								
5	G605 Resumpk			5/17/23	1027																				
6	Equipment Blank 12			5/17/23	1708																				
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16																									

DC-2302-Rev 0		SAMPLER NAME AND SIGNATURE		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
		[Signature]		5/17/23		1814		[Signature]		5-17-23		1814		H:Y		Y N Y	

PRINT Name of SAMPLER:		DATE Signed (MM/DD/YYYY):	
Aaron Penabaz		05/17/23	

Duck Creek

WELL/SAMPLE POINT **BA06**

Purge Method: Bladder / Low Flow

Date: 5/12/23 Start Time: 1110 Finish/Sample Time: 1219

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

Depth to Water From MP: 2170 ft Total Purge Volume: 1.3 Gal ☒ L

Water Column Length: _____ ft Max Drawdown: _____ ft

Well Water Volume: _____ Gal / L Total Drawdown: 5.85 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	1130	2390	100	6.45	2940	1582	-32	0.99	55.6
2	1131	2430	100	6.45	2930	1571	-36	0.89	53.2
3	1132	2455	100	6.44	2930	1568	-39	0.82	55.1
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	☒	☐
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) 1000mL
1	2.5L HNO3

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

Final DTW: 27.55 ft

Comments S/N - 21615525

Dis. Iron = Over Range

Sampler's Signature: Joseph R Red

Duck Creek

WELL/SAMPLE POINT OM01

Purge Method: portable pump with Detsinator tubing

Date: 5/16/2023 Start Time: 0934

Finish/Sample Time: 1048

Well Depth (Bottom) From MP: 27.91 ft

Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 10.60 ft

Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 17.21 ft

Max Drawdown: — ft

Well Water Volume: 10.11 Gal (L)

Total Drawdown: 8.60 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	0944	13.72	100	6.30	3140	19.12	148	6.19	35.5
2	0951	13.91	100	6.31	3240	19.06	134	6.24	85.9
3	0953	14.10	100	6.31	3350	18.99	129	6.15	117
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hor: 60

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	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, 1000mL)
1	(P, 250mL, HNO3)

(12)

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

Final DTW: 19.20 ft

Comments

Transducer SN - 21615685

diss Iron²⁺ - 0.264 ppm

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR02

Purge Method: portable pump with Dedseclet tubing

Date: 5/16/2023 Start Time: 1056 Finish/Sample Time: 1214

Well Depth (Bottom) From MP: 22.41 ft 22.25
 Depth to Water From MP: 5.04 ft
 Water Column Length: 17.21 ft
 Well Water Volume: 10.41 Gal 10
 Min. Purge Volume: 1000 Gal/L 1000
 Total Purge Volume: 1000 Gal/L 1000
 Max Drawdown: — ft
 Total Drawdown: 0.08 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1113	5.12	100	6.62	1980	17.42	-8	8.74	71000 > 1000
2	1115	5.12	100	6.61	1990	17.38	-13	8.57	71000 > 1000
3	1117	5.12	100	6.60	2000	17.28	-15	8.45	71000 > 1000
4	1119	5.12	100	6.60	2000	17.34	-17	8.40	71000 > 1000
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HO16a

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:

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) 1000mL
1	(P, 2.5L, HNO3)

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

Final DTW: 5.12 ft

Transducer
 Comments SN 21615679

sol Iron⁺² = 2.864 ppm

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR03D

Purge Method: portable pump with dedicated tubing

Date: 5/16/2023 Start Time: 1219

Finish/Sample Time: 1336

Well Depth (Bottom) From MP: 77.77 ft

Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 44.44 ft

Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 33.33 ft

Max Drawdown: — ft

Well Water Volume: 20.16 Gal (L)

Total Drawdown: 0.10 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	1240	44.48	100	6.67	3040	16.83	-14	1.96	44.0
2	1242	44.48	100	6.67	3020	16.94	-13	1.99	41.3
3	1244	44.48	100	6.66	3070	16.99	-13	1.96	41.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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) 1000mL
1	(P, 2.5 L, HNO3)

(6)

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

Final DTW: 44.54 ft

Comments Transducer S/N - 21615577 diss Iron²⁺ - 3.365ppm

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR04D

Purge Method: Portable pump

Date: 5/16/23 Start Time: 0945 Finish/Sample Time: 1055

Well Depth (Bottom) From MP: 67.98 ft / Min. Purge Volume: 1000 Gal / L ml

Depth to Water From MP: 20.22 ft Total Purge Volume: 1500 Gal / L ml

Water Column Length: 47.76 ft Max Drawdown: — ft

Well Water Volume: 28.92 Gal / L Total Drawdown: 0.00 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	0958	20.22	100	6.61	5809.1	17.05	-16.0	1.15	199.16
2	0959	20.22	100	6.62	5896.0	17.03	-15.8	1.12	212.14
3	1001	20.22	100	6.63	5864.6	17.01	-15.4	1.08	220.85
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 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 2.5L HNO3
1	P 1000 mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
2	AV 40mL H2SO4
1	P 1000 mL
6.143	Soluble Iron ²⁺

ppm Final DTW: 20.22 ft

Comments

Sampler's Signature: [Signature]

Purge Method: Portable pump

Date: 5/16/23 Start Time: 1104 Finish/Sample Time: 1215

Well Depth (Bottom) From MP: 35.98 ft Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 17.74 ft Total Purge Volume: 1500 Gal / L (6)

Water Column Length: 18.24 ft Max Drawdown: 1 ft

Well Water Volume: 11.05 Gal / (4) Total Drawdown: 10.16 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	1116	22.60	100	6.73	1189.3	18.25	89.6	0.94	187.53
2	1118	22.62	100	6.73	1190.8	18.28	87.0	0.91	189.90
3	1119	22.65	100	6.73	1192.8	18.32	81.2	0.89	193.51
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquafroll 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	P2.5L HNO3
1	P1000mL

Filtered	
Qty	Bottles
1	Metals (P, 250mL, HNO ₃)
	Ammonia (P, 250mL, H ₂ SO ₄)
	General (P, 500mL)
2	AV 400 mL H ₂ SO ₄
1	P1000 mL
Under range	Soluble Iron

Final DTW = 27.90

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR06A

Purge Method: portable pump with Descender tubing

Date: 5/17/2023 Start Time: 1220 Finish/Sample Time: 1345

Well Depth (Bottom) From MP: 25.05 ft 25.70 Min. Purge Volume: 1000 Gal / L (M)
 Depth to Water From MP: 12.77 ft Total Purge Volume: 1000 Gal / L (M)
 Water Column Length: 12.93 ft Max Drawdown: - ft
 Well Water Volume: 7.82 Gal (L) Total Drawdown: 0.00 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	1243	12.80	100	6.64	2510	15.65	5	1.18	465
2	1245	12.80	100	6.64	2500	15.70	1	1.15	429
3	1247	12.80	100	6.63	2510	15.83	-1	1.12	444
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Holiba

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) 1000mL
1	(P, 250 mL, HNO3)

(10)

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

Final DTW: 12.77 ft

Comments: Transducer S/N 21615692 diss Iron²⁺ - overrange

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM07

Purge Method: portable pump with dedicated tubing

Date: 5/17/2023 Start Time: 10:40

Finish/Sample Time: 12:13

Well Depth (Bottom) From MP: 29.92 ft 30.02

Min. Purge Volume: 1000 Gal / L (m)

Depth to Water From MP: 12.18 ft

Total Purge Volume: 1000 Gal / L

Water Column Length: 17.84 ft

Max Drawdown: — ft

Well Water Volume: 10.79 Gal (L)

Total Drawdown: 0.12 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	11:15	12.33	100	6.95	1080	15.88	120	1.73	133
2	11:17	12.33	100	6.94	1080	15.89	116	1.69	128
3	11:19	12.33	100	6.93	1080	15.93	114	1.62	125
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, 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	CP, 2.5L, HNO3

(10)

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

Final DTW: 12.30 ft

Comments: Transducer S/N - 21615541 No Iron taken at HSS
Well has no casing Well due to not having enough ambient

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR11

Purge Method: Portable pump

Date: 5/15/23 Start Time: 1125 Finish/Sample Time: 1233

Well Depth (Bottom) From MP: 340.5/15 ~~43.85~~ ft 40.77 Min. Purge Volume: 1000 Gal / L 62

Depth to Water From MP: 30.74 ft Total Purge Volume: 1500 Gal / L 62

Water Column Length: 10.03 ft Max Drawdown: — ft

Well Water Volume: 6.07 Gal 10 Total Drawdown: 0.11 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	1137	30.80	100	7.04	1060.6	16.15	-10.0	1.13	233.41
2	1138	30.80	100	7.04	1064.4	16.17	-10.9	1.12	220.20
3	1140	30.80	100	7.04	1067.7	16.20	-11.6	1.12	216.53
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)
	General (P, 250 mL)
1	P2.5L HNO3
1	P1000mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
2	AV 40mL H2SO4
1	P1000mL
0.850	Soluble Iron ²⁺

ppm Final DTW: 30.85 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM12

Purge Method: Portable pump

Date: 5/15/23 Start Time: 1258 Finish/Sample Time: 1405

Well Depth (Bottom) From MP: 520.5/15 ~~43.19~~ ft 43.11 Min. Purge Volume: 1000 Gal / L 2L

Depth to Water From MP: 15.80 ft Total Purge Volume: 1500 Gal / L 2L

Water Column Length: 27.31 ft Max Drawdown: — ft

Well Water Volume: 16.54 Gal 10 Total Drawdown: 0.18 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	1310	15.98	100	6.64	2031.2	16.42	-55.7	0.86	160.81
2	1312	15.98	100	6.65	2032.5	16.45	-56.1	0.86	177.99
3	1313	15.98	100	6.65	2034.1	16.48	-56.5	0.85	185.83
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquastroll 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	<u>520.5/15</u>	<u>✓</u>
Casing locked/secure	<u>+</u>	<u>✓</u>
Well cap fits securely.	<u>/</u>	
Good seal/drainage	<u>/</u>	
Well has weep holes		<u>/</u>

No casing

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)
	General (P, 250 mL)
<u>1</u>	<u>P 1.5L HNO3</u>
<u>1</u>	<u>P 1000 mL</u>

Filtered	
Qty	Bottles
<u>1</u>	Metals (P, 250mL, HNO3)
	Ammonia (P, 250mL, H2SO4)
	General (P, 500mL)
<u>2</u>	<u>AV 40 mL H2SO4</u>
<u>1</u>	<u>P 1000 mL</u>
<u>Over range</u>	<u>Soluble Iron 12</u>

Final DTW: 15.98 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR13D

Purge Method: Portable pump

Date: 5/10/23 Start Time: 1410 Finish/Sample Time: 1520

Well Depth (Bottom) From MP: 540 5/10
-50.23 ft 50.15 Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 12.14 ft Total Purge Volume: 1500 Gal / L (mL)

Water Column Length: 38.01 ft Max Drawdown: _____ ft

Well Water Volume: 23.02 Gal (L) Total Drawdown: 0.00 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	1421	12.14	100	6.94	1630	22.10	-59	1.50	>1000
2	1422	12.14	100	6.94	1620	22.13	-59	1.48	>1000
3	1424	12.14	100	6.93	1610	22.15	-60	1.47	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hanna

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAs (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
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	P 2.5 L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
1	P1000 mL
2	AV 40 mL H2SO4
2.166	Soluble Iron ^{ppm}

Final DTW: 12.14 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR13S

Purge Method: portable pump with Dedscat Tubing

Date: 5/17/2023 Start Time: 1355

Finish/Sample Time: 1520

Well Depth (Bottom) From MP: 29.55 ft

Min. Purge Volume: 1000 Gal / L (m)

Depth to Water From MP: 11.95 ft

Total Purge Volume: 1000 Gal / L (m)

Water Column Length: 17.60 ft

Max Drawdown: ✓ ft

Well Water Volume: 10.61 Gal (L)

Total Drawdown: 0.65 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1421	11.99	100	6.83	1970	16.43	-21	2.10	78.1
2	1423	11.99	100	6.82	1970	16.31	-22	1.99	73.6
3	1425	11.99	100	6.82	1960	16.27	-23	1.94	56.1
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	☒	☐
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) 1000mL
1	(P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL) 1000mL
2	TOC (A,V, 5x 40mL, H2SO4) App 5/17/22

Final DTW: 12.00 ft

Comments Transducer s/n 21615676 diss Iron = 5.196 ppm

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR14D

Purge Method: portable pump w/ dedicated tubing

Date: 5/15/2023 Start Time: 1005 Finish/Sample Time: 1135

Well Depth (Bottom) From MP: 48.78 ft Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 8.83 ft Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 39.95 ft Max Drawdown: — ft

Well Water Volume: 24.16 Gal / L Total Drawdown: 0.19 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1036	9.02	100	6.54	2680	15.15	53	4.81	195
2	1038	9.02	100	6.54	2670	15.08	48	4.95	169
3	1040	9.02	100	6.53	2630	15.05	44	4.99	184
4					2630				
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:

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, 250mL) 1000mL (P, 2.5L, HNO3)

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

Final DTW: 9.02 ft

Comments Transducer S/N - 21615611 gross Iron¹² - 2.857 ppm

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM16

Purge Method: Portable pump

Date: 5/10/23 Start Time: 1238 Finish/Sample Time: 1350

Well Depth (Bottom) From MP: 43.51 ft Min. Purge Volume: 1000 Gal/L ml

Depth to Water From MP: 23.07 ft Total Purge Volume: 1500 Gal/L ml

Water Column Length: 20.44 ft Max Drawdown: _____ ft

Well Water Volume: 12.38 Gal/L Total Drawdown: 3.74 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	1250	24.40	100	6.47	3440	26.05	34	1.20	>1000
2	1251	24.40	100	6.47	3460	26.10	35	1.17	>1000
3	1253	24.39	100	6.47	3470	26.13	32	1.21	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

Well Integrity	Yes	No
Well has ID sign	☒	☐
Casing locked/secured	☒	☐
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 2.5 L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
1	P 1000 mL
2	AV 40 mL H2SO4
0.694	Soluble Inorg +2

ppm Final DTW: 26.81 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM17

Purge Method: Portable pump

Date: 5/10/23 Start Time: 1100 Finish/Sample Time: 1214

Well Depth (Bottom) From MP: 17.45 ft Min. Purge Volume: 1000 Gal / L (ml)

Depth to Water From MP: 7.89 ft Total Purge Volume: 1500 Gal / L (ml)

Water Column Length: 7.56 ft Max Drawdown: _____ ft

Well Water Volume: 4.58 Gal / L Total Drawdown: 5.11 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	1114	12.18	100	6.66	937	23.89	12	2.36	396
2	1115	12.20	100	6.66	929	23.85	14	2.32	390
3	1117	12.22	100	6.66	923	23.80	17	2.28	375
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, 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)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
1	P 1000 mL
2	AV 40 mL H2SO4
0.115	Soluble Iron ⁺²

Final DTW: 15.00 ft

Comments Hobo connect well wouldn't show up. Dead battery?

5/17 changed + downloaded

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR19

Purge Method: Portable pump

Date: 5/15/23 Start Time: 1420 Finish/Sample Time: 1528

Well Depth (Bottom) From MP: 55.03 ft ✓ Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 24.70 ft Total Purge Volume: 1500 Gal / L 

Water Column Length: 30.33 ft Max Drawdown: — ft

Well Water Volume: 18.37 Gal / (L) Total Drawdown: 0.00 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	1432	24.73	100	6.76	2650.6	18.08	-35.8	0.82	403.72
2	1433	24.73	100	6.75	2621.4	18.11	-35.6	0.79	385.71
3	1435	24.73	100	6.75	2621.7	18.15	-35.6	0.78	356.05
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Apptell 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 2.5L HNO3
1	P 1000 mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO ₃)
	Ammonia (P,250mL, H ₂ SO ₄)
	General (P,500mL)
2	AV 40mL H ₂ SO ₄
1	P 1000mL
over range	Soluble Iron 12

Final DTW: 24.70 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR20

Purge Method: Portable pump

Date: 5/15/23 Start Time: 1000 Finish/Sample Time: 1110

Well Depth (Bottom) From MP: 57.55 ft ✓ Min. Purge Volume: 1000 Gal / L 1000

Depth to Water From MP: 21.25 ft Total Purge Volume: 1600 Gal / L 1600

Water Column Length: 36.30 ft Max Drawdown: — ft

Well Water Volume: 21.98 Gal 10 Total Drawdown: 0.02 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1016	21.25	100	6.92	2602.0	16.57	2.5	1.02	144.62
2	1018	21.25	100	6.92	2598.1	16.55	2.3	1.00	150.71
3	1019	21.25	100	6.92	2591.6	16.53	1.9	0.99	169.84
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: AquaTrak 200

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:

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)
	General (P, 250 mL)
1	P 2.5 L HNO3
1	P 1000 mL

Qty	Filtered Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
2	Av 40 mL H2SO4
1	P 1000 mL
2.160	Soluble Iron ⁴²

ppm Final DTW: 21.27 ft

Comments

Sampler's Signature: James P. [Signature]

Duck Creek

WELL/SAMPLE POINT OM21

Purge Method: portable pump with dedicated tubing

Date: 5/15/2023 Start Time: 1140

Finish/Sample Time: 1324

Well Depth (Bottom) From MP: 60.55 ft 60-53

Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 8.65 ft

Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 51.88 ft

Max Drawdown: — ft

Well Water Volume: 31.38 Gal (L)

Total Drawdown: 0.15 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1225	8.80	100	6.51	3620	13.60	-27	1.84	109
2	1227	8.80	100	6.51	3620	13.58	-28	1.73	110
3	1229	8.80	100	6.51	3620	13.55	-29	1.67	118
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Holiba

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) 1000mL
1	(P, 2.5L, HNO3)

(10)

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

Final DTW: 8.80 ft

Comments Transfer S/W - 21615593 diss Iron - over range

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM22D

Purge Method: portable pump w/ dedicated tubing

Date: 5/17/2023

Start Time: 1535
1535

Finish/Sample Time: 1655

Well Depth (Bottom) From MP: 85.19 ft

Min. Purge Volume: 1000 Gal / L (ML)

Depth to Water From MP: 17.85 ft

Total Purge Volume: 1000 Gal / L (ML)

Water Column Length: 47.34 ft

Max Drawdown: — ft

Well Water Volume: 28.63 Gal (L)

Total Drawdown: 0.07 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	1554	17.92	100	6.70	3590	14.67	46	1.05	71000
2	1556	17.92	100	6.70	3600	14.55	38	1.07	71000
3	1558	17.92	100	6.69	3600	14.49	33	1.03	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	☒	☐
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, 250mL) 1000mL
1	CP, 25L, HNO3

10

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

App 5/17/23

Final DTW: 17.92 ft

Comments: Transducer S/N 216 15592

dis Iron - 3.0 3.069

Ant nest in well

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT **OM23D**

Purge Method: bailer

Date: 5/15/23

Start Time: 1439

Finish/Sample Time: 1600

Well Depth (Bottom) From MP: 82.91 ft

Min. Purge Volume: NA Gal/L

Depth to Water From MP: 37.83 ft

Total Purge Volume: 82.5 Gal/L

Water Column Length: 45.08 ft

Max Drawdown: NA ft

Well Water Volume: 27.26 Gal/L

Total Drawdown: 0.17 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	1309	3830	27.5	7.22	1670	13.29	-34	2.29	89.8
2	1527	38.73	27.5	7.18	1680	13.20	-33	2.21	89.4
3	1543	39.09	27.5	7.12	1670	13.12	-25	2.17	75.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	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)
	Ammonia (P,250mL, H2SO4)
1	General (P, 250 mL) 1000 mL
2	TOC 40 mL

Final DTW: 38.0 ft

Comments

Could not get submersible pump to well - has to use bailer

5/15/23 15591

Dis Iron = 2.326 ppm

Sampler's Signature:

Joseph R. Reed

Duck Creek

WELL/SAMPLE POINT OM24D

Purge Method: Portable pump

Date: 5/16/23 Start Time: 1300 Finish/Sample Time: 1458

Well Depth (Bottom) From MP: 49.88 ft 19.78 Min. Purge Volume: 1000 Gal / L ML

Depth to Water From MP: 2.65 ft Total Purge Volume: 1500 Gal / L ML

Water Column Length: 17.13 ft Max Drawdown: — ft

Well Water Volume: 10.37 Gal Ⓛ Total Drawdown: 0.04 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	1313	2.69	100	6.79	3004.5	19.02	-17.7	1.16	685.33
2	1314	2.69	100	6.79	3005.4	19.05	-17.3	1.17	669.73
3	1316	2.69	100	6.79	3004.9	19.09	-17.1	1.17	639.37
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 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 + 3 dup	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1 + 1 dup	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 250 mL)
1 + 1 dup	P 2.5L HNO3
1 + 1 dup	P 1000 mL

Filtered	
Qty	Bottles
1 + 1 dup	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
1 + 1 dup	P 1000 mL
2 + 2 dup	AV 40 mL H2SO4
6.227	Soluble Iron +2

ppm Final DTW: 2.69 ft

Comments _____

Sampler's Signature: _____

Duck Creek

WELL/SAMPLE POINT OM25S

Purge Method: Bailer

Date: 5/15/23 Start Time: 1210 Finish/Sample Time: 1314

Well Depth (Bottom) From MP: 64.02 ft Min. Purge Volume: NA Gal / L

Depth to Water From MP: 57.83 ft Total Purge Volume: 1 Gal (L)

Water Column Length: 6.19 ft Max Drawdown: NA ft

Well Water Volume: 3.74 Gal / L Total Drawdown: 2.22 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	1243	59.38	16.1	6.92	3280	13.53	2	5.29	72.6
2									
3									
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	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) 1000mL
1	2.5 L HNO3

10

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

Final DTW: 60.55 ft

Comments SN-21615681

Dis Iron = 0.404 ppm

Historically, very bad drawdown - used bailer

Sampler's Signature: Joseph R Reed

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>19.83</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

234 @ 21°C

ICV (Initial Calibration Verification)					Time: <i>0942</i>
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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>
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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:
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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>
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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>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: Vista 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: Dipper-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
pH 4.00b	3.99	s.u.	±0.15 s.u.	pass	NA	Geotech
pH 7.00b	6.98	s.u.	±0.15 s.u.	I	I	Geotech
pH 10.00b	9.92	s.u.	±0.15 s.u.	I	I	Geotech
SC 1000	798	µS/cm	±5%	Fail	cal: 4.00H	Ricca

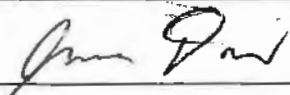
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1550	
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading
pH 4.00a	4.10	s.u.	±0.1 s.u.	pass	No	NA
pH 7.00a	7.03	s.u.	±0.1 s.u.	I	I	I
pH 10.00a	9.98	s.u.	±0.1 s.u.	I	I	I
SC 1000	1040	µS/cm	±5%	I	I	I
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	I	I	I
Turbidity (DI)	0.00	NTU	<2 NTU	I	I	I

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading
4.00a		s.u.	±0.1 s.u.			
7.00a		s.u.	±0.1 s.u.			
10.00a		s.u.	±0.1 s.u.			
SC 1000		µS/cm	±5%			
DO (Zero pt)		mg/L	±0.1 mg/L			
Turbidity (DI)		NTU	<2 NTU			

Comments:

Signature: 	Date: 5/10/23
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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
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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
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Kimberlin</u>		Location: <u>Duck Creek</u>	
Weather: <u>73°-74° Sunny w/n SE 8 mph</u>		Environment: <u>grass, dirt</u>	
Multiparameter Water Meter	Make: <u>Horiba</u>	Model: <u>U5000</u>	Serial Number: <u>04U1FVTF</u>
Water Level Meter	Make: <u>Merom</u>	Model: <u>D-MART</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/A</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/A</u>	<u>N/A</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/A</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>N/A</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2000</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Geotech	2GE1442	May-23
ORP	<u>238</u>	mV	±15 mV	<u>P</u>	<u>N/A</u>	<u>N/A</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>09.81</u>	%	97-100%	<u>P</u>	<u>N/A</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/A</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>		<u>23°C @ 21°C</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>6.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>10.04</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24	
SC 1000	<u>989</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>1530</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/A</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N/A</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N/A</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N/A</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>[Signature]</u>	Date: <u>5/11/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: Vision 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	
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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	
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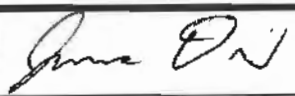
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	991.18	µS/cm	±5%				Ricca	4207N97	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:	
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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: 5/11/23
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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>P</u>	<u>P</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>P</u>	<u>P</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>10.00</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>P</u>	<u>P</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2.020</u>	µS/cm	±5%	<u>P</u>	<u>P</u>	<u>P</u>	Geotech	2GE1442	May-23
ORP	<u>230</u>	mV	±15 mV	<u>P</u>	<u>P</u>	<u>P</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1	<u>P</u>	<u>P</u>	<u>P</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.10</u>	%	97-100%	<u>P</u>	<u>P</u>	<u>P</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>1.20</u>	NTU	<2 NTU	<u>P</u>	<u>P</u>	<u>P</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>P</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>9.89</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>P</u>	Geotech	2GE820	May-24	
SC 1000	<u>1.010</u>	µS/cm	±5%	<u>P</u>	<u>P</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>16:04</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>P</u>	<u>P</u>	MSI	L343-07	12/9/2023
10.00a	<u>10.88</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>P</u>	<u>P</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1.040</u>	µS/cm	±5%	<u>P</u>	<u>P</u>	<u>P</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>P</u>	<u>P</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>1.50</u>	NTU	<2 NTU	<u>P</u>	<u>P</u>	<u>P</u>	Pace Labs	N/A (DI)	N/A (DI)

Comments: NA

Signature: <u>[Signature]</u>	Date: <u>5-11-23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Joe Reed</u>			Location: <u>Duck Creek</u>		
Weather: <u>69-80° wind 9-16 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>
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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	
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Multiparameter Meter Field Calibration Checklist

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

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	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L343-07	12/9/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	N/A	MSI	M082-04	3/25/2024
SC Zero (DI)	1a	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	NO	N/A	Geotech	2GE1442	May-23
ORP	240	mV	±15 mV	P	NO	N/A	InSitu	2G1762	Jun-23
DO (Zero pt)	0.00	mg/L	±0.1	P	NO	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	95.62	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

240 @ 1700

ICV (Initial Calibration Verification)					Time: 0930				
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/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	9.90	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE820	May-24	
SC 1000	1000	µS/cm	±5%	P	N/A	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	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: 5/15/2023
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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.	I	I		MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.	I	I		MSI	M082-04	3/25/2024
SC Zero (DI)	2.2	µS/cm	0-25 µS/cm	I	I		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1990	µS/cm	±5%	I	I		Geotech	2GE1442	May-23
ORP	240	mV	±15 mV	I	I		InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1	I	I		Macron	#000228049	8/26/2025
DO (Saturated)	98.4	%	97-100%	I	I		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	I	I		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.	I		Geotech	2GC931	Mar-24
pH 10.00b	9.98	s.u.	±0.15 s.u.	I		Geotech	2GE820	May-24
SC 1000	990	µS/cm	±5%	I		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.	I	I		MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.	I	I		MSI	M082-04	3/25/2024
SC 1000	1020	µS/cm	±5%	I	I		Ricca	4207N97	Jul-24
DO (Zero pt)	0.03	mg/L	±0.1 mg/L	I	I		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	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: Joe Reed	Date: 5/15/23
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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: Aquatrill	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
pH 4.00b	4.07	s.u.	±0.15 s.u.	pass	NA	Geotech
pH 7.00b	6.93	s.u.	±0.15 s.u.	pass	NA	Geotech
pH 10.00b	9.99	s.u.	±0.15 s.u.	pass	NA	Geotech
SC 1000	1032.8	µS/cm	±5%	pass	NA	Ricca

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1610	
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading
pH 4.00a	4.10	s.u.	±0.1 s.u.	pass	NA	NA
pH 7.00a	7.05	s.u.	±0.1 s.u.	pass	NA	NA
pH 10.00a	10.09	s.u.	±0.1 s.u.	pass	NA	NA
SC 1000	990.18	µS/cm	±5%	pass	NA	NA
DO (Zero pt)	0.07	mg/L	±0.1 mg/L	pass	NA	NA
Turbidity (DI)	0.00	NTU	<2 NTU	pass	NA	NA

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading
4.00a		s.u.	±0.1 s.u.			
7.00a		s.u.	±0.1 s.u.			
10.00a		s.u.	±0.1 s.u.			
SC 1000		µS/cm	±5%			
DO (Zero pt)		mg/L	±0.1 mg/L			
Turbidity (DI)		NTU	<2 NTU			

Comments:

Signature: [Signature]	Date: 5/15/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyle Lane</u>				Location: <u>Duck Creek</u>			
Weather: <u>57° to 70° cloudy</u>				Environment: <u>Dry</u>			
Multiparameter Water Meter		Make: <u>Haniba</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>F</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>F</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>no</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>20.10</u>	µS/cm	0<25 µS/cm	<u>↓</u>	<u>↓</u>	<u>↓</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>19.70</u>	µS/cm	±5%	<u>↓</u>	<u>↓</u>	<u>↓</u>	Geotech	2GE1442	May-23
ORP	<u>215</u>	mV	±15 mV	<u>↓</u>	<u>↓</u>	<u>↓</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1	<u>↓</u>	<u>↓</u>	<u>↓</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.20</u>	%	97-100%	<u>↓</u>	<u>↓</u>	<u>↓</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</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

ICV (Initial Calibration Verification)					Time: <u>09:36</u>	
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer
pH 4.00b	<u>3.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech
pH 7.00b	<u>6.98</u>	s.u.	±0.15 s.u.	<u>↓</u>	<u>↓</u>	Geotech
pH 10.00b	<u>10.09</u>	s.u.	±0.15 s.u.	<u>↓</u>	<u>↓</u>	Geotech
SC 1000	<u>1030</u>	µS/cm	±5%	<u>↓</u>	<u>↓</u>	Ricca

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
pH 4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>
pH 7.00a	<u>6.94</u>	s.u.	±0.1 s.u.	<u>↓</u>	<u>↓</u>	<u>↓</u>
pH 10.00a	<u>9.92</u>	s.u.	±0.1 s.u.	<u>↓</u>	<u>↓</u>	<u>↓</u>
SC 1000	<u>992</u>	µS/cm	±5%	<u>↓</u>	<u>↓</u>	<u>↓</u>
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1 mg/L	<u>↓</u>	<u>↓</u>	<u>↓</u>
Turbidity (DI)	<u>0.58</u>	NTU	<2 NTU	<u>↓</u>	<u>↓</u>	<u>↓</u>

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
4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>
7.00a	<u>6.94</u>	s.u.	±0.1 s.u.	<u>↓</u>	<u>↓</u>	<u>↓</u>
10.00a	<u>9.92</u>	s.u.	±0.1 s.u.	<u>↓</u>	<u>↓</u>	<u>↓</u>
SC 1000	<u>992</u>	µS/cm	±5%	<u>↓</u>	<u>↓</u>	<u>↓</u>
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1 mg/L	<u>↓</u>	<u>↓</u>	<u>↓</u>
Turbidity (DI)	<u>0.58</u>	NTU	<2 NTU	<u>↓</u>	<u>↓</u>	<u>↓</u>

Comments: NA

Signature: <u>K Lane</u>	Date: <u>5-15-2023</u>
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Multiparameter Meter Field Calibration Checklist

5/16/23
APB

Field Personnel: <u>Anron Rimbetter</u>				Location: <u>Duck Creek</u>			
Weather: <u>61°-75°R, 55% cloudy, wind NW, 5 mph</u>				Environment: <u>Grass, dirt, flowers, woods</u>			
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>US000</u>	Serial Number: <u>0401FUTF</u>			
Water Level Meter		Make: <u>Hean</u>	Model: <u>Digpu-7</u>	Serial Number: <u>3717-T</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.11</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>6.84</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>10.15</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>10.00</u>	MSI	M082-04	3/25/2024
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>2000</u>	µS/cm	±5%	<u>P</u>			Geotech	2GE1442	May-23
ORP	<u>236</u>	mV	±15 mV	<u>P</u>			InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.01</u>	mg/L	±0.1	<u>P</u>			Macron	#000228049	8/26/2025
DO (Saturated)	<u>91.76</u>	%	97-100%	<u>P</u>			Pace Labs	N/A (DI)	N/A (DI)
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

237 @ 10°C

ICV (Initial Calibration Verification)						Time: <u>0912</u>			
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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>7.03</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>P</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>10.05</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>P</u>	Geotech	2GE820	May-24
SC 1000	<u>167</u>	µS/cm	±5%	<u>P</u>	<u>P</u>	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1545</u>			
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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>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.06</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>P</u>			MSI	M082-04	3/25/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>			Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.09</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:			
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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>5/16/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: Vista Duck Creek			
Weather: 64-76°F p. cloudy wind NW 10 mph				Environment: grass			
Multiparameter Water Meter		Make: Aquatroll	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	4.04	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.05	s.u.	±0.1 s.u.	pass	No	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.08	s.u.	±0.1 s.u.	pass	No	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	4.64	µS/cm	0<25 µS/cm	pass	No	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1902.7	µS/cm	±5%	pass	Yes	1996.9	Geotech	2GE1442	May-23
ORP	237.1	mV	±15 mV	pass	No	NA	InSitu	2G1762	Jun-23
DO (Zero pt)	0.07	mg/L	±0.1	pass	No	NA	Macron	#000228049	8/26/2025
DO (Saturated)	99.52	%	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: 0908			
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	6.94	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	1000.6	µS/cm	±5%	pass	NA	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1540				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	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.	pass	No	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.10	s.u.	±0.1 s.u.	pass	No	NA	MSI	M082-04	3/25/2024
SC 1000	1004.9	µS/cm	±5%	pass	No	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	pass	No	NA	Macron	#000228049	8/26/2025
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

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: 5/16/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Amron Pemberton</u>	Location: <u>Duck creek</u>
Weather: <u>60°-76° sunny with NE wind</u>	Environment: <u>Grass, dirt, woods</u>

Multiparameter Water Meter	Make: <u>Hanlon</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:	0930		
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	2GE870	Mar-24
pH 7.00b	6.90	s.u.	±0.15 s.u.	I		Geotech	2GC931	Mar-24
pH 10.00b	10.06	s.u.	±0.15 s.u.	I		Geotech	2GE820	May-24
SC 1000	960	µS/cm	±5%	I		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>[Signature]</u>	Date: <u>5/17/2023</u>
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Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

July 14, 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



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order GE02234

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



Work Order GE02539

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



Work Order GE02656

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 GE02775

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 GE03000

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 GE03280

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 GE03619

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: GE02234-01
Name: BA02L
Matrix: Ground Water - Grab

Sampled: 05/10/23 14:15

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.57	pCi/L			1	0.389	06/13/23 21:10		904.0 903.0
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Sample: GE02234-02
Name: BA03
Matrix: Ground Water - Grab

Sampled: 05/10/23 13:00

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.788	pCi/L			1	0.535	06/13/23 21:10		904.0 903.0
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Sample: GE02234-03
Name: BA03 DUP
Matrix: Ground Water - Grab

Sampled: 05/10/23 13:00

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.807	pCi/L			1	0.598	06/15/23 18:26		904.0 903.0
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Sample: GE02234-04
Name: BA03L
Matrix: Ground Water - Grab

Sampled: 05/10/23 14:15

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.744	pCi/L			1	0.606	06/15/23 18:26		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE02234-05
Name: OM16
Matrix: Ground Water - Grab

Sampled: 05/10/23 13:50

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.34	pCi/L			1	0.769	06/15/23 18:26		904.0 903.0
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Sample: GE02234-06
Name: OM17
Matrix: Ground Water - Grab

Sampled: 05/10/23 12:14

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.561 J	pCi/L			1	0.686	06/15/23 18:26		904.0 903.0
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Sample: GE02234-07
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 05/10/23 15:20

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.853	pCi/L			1	0.611	06/16/23 00:06		904.0 903.0
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Sample: GE02234-09
Name: EB - 2
Matrix: Ground Water - Grab

Sampled: 05/10/23 15:45

Received: 05/10/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.410 J	pCi/L			1	0.827	06/16/23 00:06		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE02539-01
Name: X301
Matrix: Ground Water - Grab

Sampled: 05/10/23 15:43

Received: 05/11/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	U 0.0299	pCi/L				0.542	06/14/23 16:23		904.0 903.0
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Sample: GE02656-01
Name: BA01
Matrix: Ground Water - Grab

Sampled: 05/11/23 13:33

Received: 05/11/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.829	pCi/L			1	0.508	06/14/23 16:23		904.0 903.0
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Sample: GE02656-02
Name: BA04
Matrix: Ground Water - Grab

Sampled: 05/11/23 11:40

Received: 05/11/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.152 U	pCi/L			1	0.559	06/14/23 16:23		904.0 903.0
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Sample: GE02656-03
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.432 J	pCi/L			1	0.467	06/14/23 16:23		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE02656-04
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.232 J	pCi/L			1	0.484	06/14/23 16:23		904.0 903.0
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Sample: GE02656-05
Name: EB-4
Matrix: Ground Water - Equipment Blank

Sampled: 05/11/23 16:00
Received: 05/11/23 17:20

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.000 U	pCi/L			1	0.59	06/14/23 16:23		904.0 903.0
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Sample: GE02775-01
Name: BA05
Matrix: Ground Water - Grab

Sampled: 05/12/23 10:50
Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	2.07	pCi/L			1	0.628	06/14/23 16:23		904.0 903.0
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Sample: GE02775-02
Name: BA06
Matrix: Ground Water - Grab

Sampled: 05/12/23 12:19
Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.11	pCi/L			1	0.577	06/14/23 16:23		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE02775-03
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.495 J	pCi/L			1	0.517	06/14/23 16:23		904.0 903.0
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Sample: GE02775-04
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.881	pCi/L			1	0.551	06/14/23 16:23		904.0 903.0
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Sample: GE02775-05
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.229 U	pCi/L			1	0.7	06/14/23 16:23		904.0 903.0
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Sample: GE02775-06
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.209 J	pCi/L			1	0.498	06/14/23 16:23		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE02775-07
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.911	pCi/L			1	0.689	06/14/23 16:23		904.0 903.0
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Sample: GE02775-08
Name: EB - 7
Matrix: Ground Water - Equipment Blank

Sampled: 05/12/23 12:45

Received: 05/12/23 14:31

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.0799 U	pCi/L			1	0.512	06/14/23 16:23		904.0 903.0
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Sample: GE03000-01
Name: BA02
Matrix: Ground Water - Grab

Sampled: 05/15/23 11:23

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.478 J	pCi/L			1	0.563	06/16/23 00:06		904.0 903.0
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Sample: GE03000-02
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.42	pCi/L			1	0.472	06/16/23 00:06		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE03000-03
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.146 U	pCi/L			1	0.823	06/16/23 00:06		904.0 903.0
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Sample: GE03000-04
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.07	pCi/L			1	0.531	06/16/23 00:06		904.0 903.0
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Sample: GE03000-05
Name: EB #8
Matrix: Ground Water - Equipment Blank

Sampled: 05/15/23 17:50

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.234 U	pCi/L			1	0.575	06/16/23 00:06		904.0 903.0
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Sample: GE03000-06
Name: EB #9
Matrix: Ground Water - Equipment Blank

Sampled: 05/15/23 17:50

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.0946 U	pCi/L			1	0.606	06/16/23 00:06		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE03000-07
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.938	pCi/L			1	0.561	06/16/23 00:06		904.0 903.0
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Sample: GE03000-08
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 05/15/23 13:14
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	27.8	pCi/L			1	10.6	06/16/23 00:06		904.0 903.0
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Sample: GE03000-09
Name: OM12
Matrix: Ground Water - Grab

Sampled: 05/15/23 14:05
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.69	pCi/L			1	0.568	06/16/23 00:06		904.0 903.0
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Sample: GE03000-10
Name: OM21
Matrix: Ground Water - Grab

Sampled: 05/15/23 13:24
Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.53	pCi/L			1	0.59	06/16/23 00:06		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE03000-11
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 05/15/23 16:00

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.174 U	pCi/L			1	0.566	06/16/23 00:06		904.0 903.0
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Sample: GE03000-12
Name: OR11
Matrix: Ground Water - Grab

Sampled: 05/15/23 12:33

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.494	pCi/L			1	0.492	06/16/23 00:06		904.0 903.0
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Sample: GE03000-13
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 05/15/23 11:35

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.199 U	pCi/L			1	0.626	06/16/23 00:06		904.0 903.0
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Sample: GE03000-14
Name: OR19
Matrix: Ground Water - Grab

Sampled: 05/15/23 15:28

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.849	pCi/L			1	0.56	06/16/23 00:06		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE03000-15
Name: OR20
Matrix: Ground Water - Grab

Sampled: 05/15/23 11:10

Received: 05/16/23 06:50

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.127 U	pCi/L			1	0.538	06/14/23 16:23		904.0 903.0
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Sample: GE03280-01
Name: OM01
Matrix: Ground Water - Grab

Sampled: 05/16/23 10:48

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.799	pCi/L				0.63	06/16/23 17:46		904.0 903.0
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Sample: GE03280-02
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 05/16/23 12:15

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.28	pCi/L				0.708	06/16/23 17:46		904.0 903.0
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Sample: GE03280-03
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 05/16/23 14:58

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.290 U	pCi/L				0.67	06/16/23 17:47		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE03280-04
Name: OM24D DUP
Matrix: Ground Water - Field Duplicate

Sampled: 05/16/23 14:58

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.0414 U	pCi/L				0.601	06/16/23 17:47		904.0 903.0
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Sample: GE03280-05
Name: OR02
Matrix: Ground Water - Grab

Sampled: 05/16/23 12:14

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.68	pCi/L				0.703	06/16/23 17:47		904.0 903.0
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Sample: GE03280-06
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 05/16/23 13:36

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.21	pCi/L				0.709	06/16/23 17:47		904.0 903.0
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Sample: GE03280-07
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 05/16/23 10:55

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	2.39	pCi/L				0.593	06/16/23 17:47		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE03280-08
Name: EQUIPMENT BLANK 10
Matrix: Ground Water - Equipment Blank

Sampled: 05/16/23 17:41

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.329 J	pCi/L				0.577	06/16/23 17:47		904.0 903.0
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Sample: GE03280-09
Name: EQUIPMENT BLANK 11
Matrix: Ground Water - Equipment Blank

Sampled: 05/16/23 17:26

Received: 05/16/23 17:47

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.213 U	pCi/L				0.695	06/16/23 17:47		904.0 903.0
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Sample: GE03619-01
Name: OM07
Matrix: Ground Water - Grab

Sampled: 05/17/23 12:13

Received: 05/17/23 18:14

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

Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.643 J	pCi/L			1	0.681	06/14/23 17:51		904.0 903.0
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Sample: GE03619-02
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 05/17/23 16:55

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.54	pCi/L			1	0.497	06/16/23 17:46		904.0 903.0
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ANALYTICAL RESULTS

Sample: GE03619-03
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 05/17/23 13:45

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.34	pCi/L			1	0.884	06/16/23 17:46		904.0 903.0
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Sample: GE03619-04
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 05/17/23 15:20

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.320 J	pCi/L			1	0.606	06/16/23 17:46		904.0 903.0
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Sample: GE03619-05
Name: EQUIPMENT BLANK 12
Matrix: Ground Water - Equipment Blank

Sampled: 05/17/23 17:08

Received: 05/17/23 18:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.114 U	pCi/L			1	0.58	06/16/23 17:46		904.0 903.0
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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
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NOTES

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

Revised Report - made corrections and added missing samples.

* 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



Certified by: Gail Schindler, Project Manager



ANALYTICAL REPORT

June 23, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1617720
Samples Received: 05/18/2023
Project Number: GE02234
Description: Vistra-Duck Creek
Site: 001
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GE02234

SDG:
L1617720

DATE/TIME:
06/23/23 16:07

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PAGE:

1 of 25

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¹	Cp
²	Tc
³	Ss
⁴	Cn
⁵	Sr
⁶	Qc
⁷	Gl
⁸	Al
⁹	Sc

SAMPLE SUMMARY

BA02L L1617720-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/10/23 14:15 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071725	1	06/05/23 15:23	06/08/23 20:25	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072625	1	06/12/23 10:09	06/13/23 21:10	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072625	1	06/12/23 10:09	06/13/23 21:10	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

BA03 L1617720-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/10/23 13:00 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071725	1	06/05/23 15:23	06/08/23 20:25	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072625	1	06/12/23 10:09	06/13/23 21:10	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072625	1	06/12/23 10:09	06/13/23 21:10	RGT	Mt. Juliet, TN

BA03 DUP L1617720-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/10/23 13:00 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/15/23 18:26	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/15/23 18:26	RGT	Mt. Juliet, TN

BA03L L1617720-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/10/23 14:15 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/15/23 18:26	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/15/23 18:26	RGT	Mt. Juliet, TN

OM16 L1617720-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/10/23 13:50 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/15/23 18:26	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/15/23 18:26	RGT	Mt. Juliet, TN

OM17 L1617720-06 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/10/23 12:14 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/15/23 18:26	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/15/23 18:26	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

OR13D L1617720-07 Non-Potable Water

Collected by

Collected date/time

Received date/time

05/10/23 15:20

05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

EB-2 L1617720-08 Non-Potable Water

Collected by

Collected date/time

Received date/time

05/10/23 15:45

05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

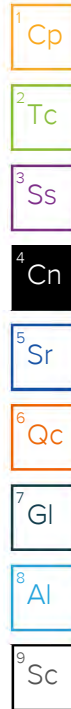
⁹Sc

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.44		0.214	0.342	06/08/2023 20:25	WG2071725
(T) Barium	98.4			30.0-143	06/08/2023 20:25	WG2071725
(T) Yttrium	119			30.0-136	06/08/2023 20:25	WG2071725

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.57		0.256	0.389	06/13/2023 21:10	WG2072625

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.125	J	0.140	0.185	06/13/2023 21:10	WG2072625
(T) Barium-133	97.4			30.0-143	06/13/2023 21:10	WG2072625

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.686		0.279	0.497	06/08/2023 20:25	WG2071725
(T) Barium	101			30.0-143	06/08/2023 20:25	WG2071725
(T) Yttrium	108			30.0-136	06/08/2023 20:25	WG2071725

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.788		0.311	0.535	06/13/2023 21:10	WG2072625

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.102	J	0.137	0.198	06/13/2023 21:10	WG2072625
(T) Barium-133	100			30.0-143	06/13/2023 21:10	WG2072625

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.690		0.260	0.456	06/09/2023 20:54	WG2071924
(T) Barium	95.8			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	105			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.807		0.354	0.598	06/15/2023 18:26	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.117	U	0.240	0.387	06/15/2023 18:26	WG2072626
(T) Barium-133	85.5			30.0-143	06/15/2023 18:26	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0980	U	0.295	0.535	06/09/2023 20:54	WG2071924
(T) Barium	94.9			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	115			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.744		0.456	0.606	06/15/2023 18:26	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.646		0.348	0.285	06/15/2023 18:26	WG2072626
(T) Barium-133	88.0			30.0-143	06/15/2023 18:26	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.594	J	0.391	0.697	06/09/2023 20:54	WG2071924
(T) Barium	71.6			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	104			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.34		0.554	0.769	06/15/2023 18:26	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.742		0.392	0.326	06/15/2023 18:26	WG2072626
(T) Barium-133	80.3			30.0-143	06/15/2023 18:26	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0713	U	0.311	0.568	06/09/2023 20:54	WG2071924
(T) Barium	94.5			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	110			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.561	J	0.491	0.686	06/15/2023 18:26	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.561		0.380	0.385	06/15/2023 18:26	WG2072626
(T) Barium-133	72.7			30.0-143	06/15/2023 18:26	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.353	J	0.286	0.513	06/09/2023 20:54	WG2071924
(T) Barium	87.5			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	123			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.853		0.435	0.611	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.500		0.328	0.331	06/16/2023 00:06	WG2072626
(T) Barium-133	78.3			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.410	J	0.394	0.709	06/09/2023 20:54	WG2071924
(T) Barium	89.6			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	101			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.410	J	0.457	0.827	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.000	U	0.231	0.425	06/16/2023 00:06	WG2072626
(T) Barium-133	79.2			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3934754-1 06/08/23 20:25

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.102	<u>U</u>	0.142	0.261
(T) Barium	112		112	
(T) Yttrium	124		124	

L1612483-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1612483-01 06/08/23 20:25 • (DUP) R3934754-5 06/08/23 20:25

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	14.7	0.437	0.512	15.5	0.531	0.512	1	5.22	1.15		20	3
(T) Barium	239			213	213					<u>C1</u>		
(T) Yttrium	109			123	123							

Laboratory Control Sample (LCS)

(LCS) R3934754-2 06/08/23 20:25

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.20	84.0	80.0-120	
(T) Barium			112		
(T) Yttrium			101		

L1613236-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1613236-25 06/08/23 20:25 • (MS) R3934754-3 06/08/23 20:25 • (MSD) R3934754-4 06/08/23 20:25

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.21	14.2	16.9	77.6	94.0	1	70.0-130			17.6		20
(T) Barium		94.6			106	104							
(T) Yttrium		110			108	128							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3937268-1 06/09/23 20:54

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.324		0.147	0.260
(T) Barium	106		106	
(T) Yttrium	107		107	

L1617724-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1617724-03 06/09/23 20:54 • (DUP) R3937268-5 06/09/23 20:54

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.256	0.399	0.734	0.705	0.376	0.734	1	200	1.75		20	3
(T) Barium	106			94.2	94.2							
(T) Yttrium	96.8			115	115							

Laboratory Control Sample (LCS)

(LCS) R3937268-2 06/09/23 20:54

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.07	81.4	80.0-120	
(T) Barium			97.6		
(T) Yttrium			120		

L1617720-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617720-08 06/09/23 20:54 • (MS) R3937268-3 06/09/23 20:54 • (MSD) R3937268-4 06/09/23 20:54

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.410	8.66	9.60	82.5	91.9	1	70.0-130			10.2		20
(T) Barium		89.6			105	98.0							
(T) Yttrium		101			118	106							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R3936878-1 06/13/23 18:47

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.0168	U	0.0520	0.0901
(T) Barium-133	91.2		91.2	

L1617720-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617720-01 06/13/23 21:10 • (DUP) R3936878-5 06/13/23 18:47

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.125	0.140	0.185	0.177	0.231	0.185	1	34.6	0.193	J	20	3
(T) Barium-133	97.4			101	101							

Laboratory Control Sample (LCS)

(LCS) R3936878-2 06/13/23 18:47

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.28	105	80.0-120	
(T) Barium-133			101		

L1613236-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1613236-17 06/13/23 21:10 • (MS) R3936878-3 06/13/23 18:47 • (MSD) R3936878-4 06/13/23 18:47

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.00663	19.9	19.0	99.7	95.1	1	75.0-125			4.72		20
(T) Barium-133		97.0			92.2	99.8							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3940721-1 06/15/23 18:26

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	-0.0163	<u>U</u>	0.0422	0.100
(T) Barium-133	82.0		82.0	

L1617724-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617724-01 06/16/23 00:06 • (DUP) R3940721-5 06/15/23 18:26

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.110	0.233	0.371	0.121	0.248	0.371	1	9.44	0.0320	<u>U</u>	20	3
(T) Barium-133	83.7			82.7	82.7							

Laboratory Control Sample (LCS)

(LCS) R3940721-2 06/15/23 18:26

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.69	114	80.0-120	
(T) Barium-133			80.8		

L1617720-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617720-03 06/15/23 18:26 • (MS) R3940721-3 06/15/23 18:26 • (MSD) R3940721-4 06/15/23 18:26

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.117	21.7	23.9	108	119	1	75.0-125			9.58		20
(T) Barium-133		85.5			80.8	86.0							

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

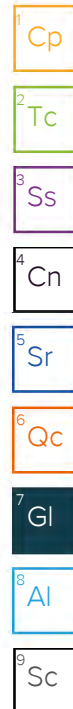
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.



ACCREDITATIONS & LOCATIONS

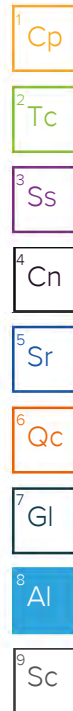
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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





Ship to :
Pace Analytical Services, LLC
12065 Lebanon Rd
Mt Juliet TN 37122

(615)758-5858

INTER_LABORATORY WORK ORDER # GE02234

(To be complete by sending lab)

Sending Project No:		GE02234	
Receiving Project No:			
Check Box for Consolidated Invoice:		☐	
Date Prepared:		5/17/2023	
REQUESTED COMPLETION DATE:		5/28/2023	

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

All questions should be addressed to sending project manager.

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

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226		9		9	\$121.05	\$1,089.45
Radium 228		9		9	\$121.05	\$1,089.45
		1		1		\$0.00
TOTAL						\$2,178.90

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

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$2,178.90	\$1,743.12	\$435.78
* Custom Revenue Allocation		TOTAL	\$1,743.12	\$435.78

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

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

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

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GE02234

L1617720

Page 46 of 206

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE02234-06
Name: OM17

Sampled: 05/10/23 12:14
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/25/23 16:00	11/06/23 12:14	

Sample: GE02234-07
Name: OR13D

Sampled: 05/10/23 15:20
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/25/23 16:00	11/06/23 15:20	

Sample: GE02234-09
Name: EB - 2

Sampled: 05/10/23 15:45
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/25/23 16:00	11/06/23 15:45	

Please email results to Gail Schindler at gail.schindler@pacelabs.com

Date Shipped: 5/17/23 Total # of Containers: 8 Sample Origin (State): IL PO #:

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed:

Relinquished By [Signature] Date/Time 5/17/23 1530 Received By Date/Time

Relinquished By Date/Time Received By Date/Time

Sample Temperature Upon Receipt	_____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GE02234

L1617720

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE02234-01
Name: BA02L

Sampled: 05/10/23 14:15
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/25/23 16:00	11/06/23 14:15	

Sample: GE02234-02
Name: BA03

Sampled: 05/10/23 13:00
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/25/23 16:00	11/06/23 13:00	

Sample: GE02234-03
Name: BA03 DUP

Sampled: 05/10/23 13:00
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/25/23 16:00	11/06/23 13:00	

Sample: GE02234-04
Name: BA03L

Sampled: 05/10/23 14:15
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/25/23 16:00	11/06/23 14:15	

Sample: GE02234-05
Name: OM16

Sampled: 05/10/23 13:50
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/25/23 16:00	11/06/23 13:50	

L1617720

<u>Tracking Numbers</u>	<u>NS A7 Temperature</u>
6319 5998 8690	19.3±0=19.3
6319 5998 8715	17.3±0=17.3
6319 5998 8726	19.4±0=19.4
6319 5998 8704	13.1±0=13.1
6319 5998 8689	17.6±0=17.6

5/18-NCF-L1617720 PACEPIL

R5

Time estimate: oh

Time spent: oh

Members



Hailey Melson (responsible)



Haley Torrence

Due on 22 May 2023 8:00 AM for target Done

- ☒ Login Clarification needed
- ☐ Chain of custody is incomplete
- ☐ Please specify Metals requested
- ☐ Please specify TCLP requested
- ☐ Received additional samples not listed on COC
- ☐ Sample IDs on containers do not match IDs on COC
- ☐ Client did not "X" analysis
- ☐ Chain of Custody is missing
- ☐ If no COC: Received by: _____
- ☐ If no COC: Date/Time: _____
- ☐ If no COC: Temp./Cont.Rec./pH: _____
- ☐ If no COC: Carrier: _____
- ☐ If no COC: Tracking #: _____
- ☐ Client informed by call
- ☐ Client informed by Email
- ☐ Client informed by Voicemail
- ☐ Date/Time: _____
- ☐ PM initials: _____
- ☐ Client Contact: _____

Comments

Hailey Melson

18 May 2023 2:52 PM

Missing ID: X301

Haley Torrence

19 May 2023 8:49 AM

PACEPIL notified 5/18

Haley Torrence

19 May 2023 1:23 PM

They said to disregard the missing sample. Thanks!

Hailey Melson

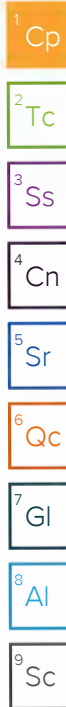
19 May 2023 1:35 PM

Done



ANALYTICAL REPORT

June 19, 2023



Pace IR - Peoria, IL

Sample Delivery Group: L1617726
Samples Received: 05/18/2023
Project Number: GE02539
Description: Vistra-Duck Creek
Site: 001
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

TABLE OF CONTENTS

Cp: Cover Page	1	1 Cp
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Cn: Case Narrative	4	
Sr: Sample Results	5	3 Ss
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Qc: Quality Control Summary	6	4 Cn
Radiochemistry by Method 904/9320	6	
Radiochemistry by Method SM7500Ra B M	7	5 Sr
Gl: Glossary of Terms	8	
Al: Accreditations & Locations	9	6 Qc
Sc: Sample Chain of Custody	10	7 Gl
		8 Al
		9 Sc

SAMPLE SUMMARY

X301 L1617726-01 Non-Potable Water

Collected by

Collected date/time

Received date/time

05/10/23 15:43

05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

ACCOUNT:

Pace IR - Peoria, IL

PROJECT:

GE02539

SDG:

L1617726

DATE/TIME:

06/19/23 15:35

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PAGE:

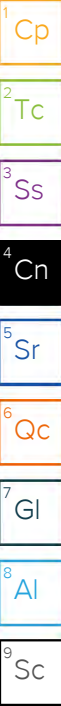
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CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0209	<u>U</u>	0.230	0.413	06/10/2023 08:55	WG2072260
(T) Barium	114			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	105			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0299	<u>U</u>	0.287	0.542	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.00897	<u>U</u>	0.171	0.351	06/14/2023 16:23	WG2072628
(T) Barium-133	70.7			30.0-143	06/14/2023 16:23	WG2072628

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3935700-1 06/10/23 08:55

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	-0.0977	<u>U</u>	0.152	0.279
(T) Barium	114		114	
(T) Yttrium	93.4		93.4	

L1617729-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617729-01 06/10/23 08:55 • (DUP) R3935700-5 06/10/23 08:55

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.74	0.333	0.547	0.290	0.402	0.547	1	143	2.78	<u>U</u>	20	3
(T) Barium	81.8			86.3	86.3							
(T) Yttrium	139			132	132							

Laboratory Control Sample (LCS)

(LCS) R3935700-2 06/10/23 08:55

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.57	91.5	80.0-120	
(T) Barium			110		
(T) Yttrium			95.4		

L1617726-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617726-01 06/10/23 08:55 • (MS) R3935700-3 06/10/23 08:55 • (MSD) R3935700-4 06/10/23 08:55

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.0209	15.4	14.2	91.8	84.9	1	70.0-130			7.78		20
(T) Barium		114			120	116							
(T) Yttrium		105			101	109							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3937863-1 06/14/23 16:23

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.0613	⬇	0.0908	0.136
(T) Barium-133	47.6		47.6	

L1617727-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617727-01 06/14/23 16:23 • (DUP) R3937863-5 06/14/23 16:23

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.742	0.400	0.359	0.496	0.326	0.359	1	39.8	0.477		20	3
(T) Barium-133	76.2			83.9	83.9							

Laboratory Control Sample (LCS)

(LCS) R3937863-2 06/14/23 16:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.91	118	80.0-120	
(T) Barium-133			61.3		

L1617729-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617729-03 06/14/23 16:23 • (MS) R3937863-3 06/14/23 16:23 • (MSD) R3937863-4 06/14/23 16:23

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0663	22.3	22.1	111	110	1	75.0-125			0.946		20
(T) Barium-133		90.1			79.0	69.9							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

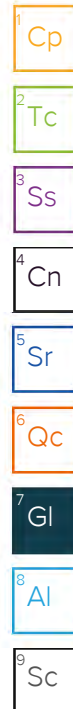
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

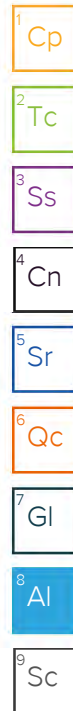
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



State of Origin: IL
 Cert. Needed: ☒ YES ☐ NO

Results Required

By: 5/28/2023

Subcontract To:

Requested Analysis

Pace Analytical - Mt Juliet
12065 Lebanon Rd
Mt Juliet TN 37122

800-752-6651

											Preserved Containers																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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Cooler Temperature on Receipt	_____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	----------	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		



Ship to :

Pace Analytical Services, LLC
12065 Lebanon Rd
Mt Juliet TN 37122

(615)758-5858

INTER_LABORATORY WORK ORDER # GE02539

(To be complete by sending lab)

Sending Project No:	GE02539
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	5/17/2023
REQUESTED COMPLETION DATE:	5/28/2023

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

All questions should be addressed to sending project manager.

Requested Reportable Units

Report Wet or Dry Weight?

Cert Needed:

IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226		1		1	\$121.05	\$121.05
Radium 228		1		1	\$121.05	\$121.05
		1		1		\$0.00
TOTAL						\$242.10

Special Requirements:

Report as 226, 228 & combined 226/228. Include QC summary & edd

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$242.10	\$193.68	\$48.42
* Custom Revenue Allocation		TOTAL	\$193.68	\$48.42

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

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

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

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
GE02539

L1617726

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SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE02539-01
Name: X301

Sampled: 05/10/23 15:43
Matrix: Ground Water
Preservative: HNO3, pH <2

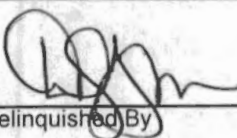
Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/26/23 16:00	11/06/23 15:43	

Please email results to Gail Schindler at gail.schindler@pacelabs.com

Date Shipped: 5/17/23 Total # of Containers: 1 Sample Origin (State): IL PO #: —

Turn-Around Time Requested ☒ NORMAL ☐ RUSH

Date Results Needed: _____

	5/17/23 1415			Sample Temperature Upon Receipt	_____ °C
Relinquished By	Date/Time	Received By	Date/Time	Sample(s) Received on Ice	Y or N
				Proper Bottles Received in Good Condition	Y or N
				Bottles Filled with Adequate Volume	Y or N
				Samples Received Within Hold Time	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or N

L1617726

<u>Tracking Numbers</u>	<u>NS A7 Temperature</u>
6319 5998 8690	$19.3 \pm 0 = 19.3$
6319 5998 8715	$17.3 \pm 0 = 17.3$
6319 5998 8726	$19.4 \pm 0 = 19.4$
6319 5998 8704	$13.1 \pm 0 = 13.1$
6319 5998 8689	$17.6 \pm 0 = 17.6$

Pace IR - Peoria, IL

Sample Delivery Group: L1617727
Samples Received: 05/18/2023
Project Number: GE02656
Description: Vistra-Duck Creek
Site: 001
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:


[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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BA04 L1617727-02	6	4 Cn
G57S L1617727-03	7	5 Sr
G64S L1617727-04	8	
EB-4 L1617727-05	9	6 Qc
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Radiochemistry by Method SM7500Ra B M	11	8 Al
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Al: Accreditations & Locations	13	9 Sc
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SAMPLE SUMMARY

BA01 L1617727-01 Non-Potable Water

Collected by
Collected date/time
05/11/23 13:33
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

BA04 L1617727-02 Non-Potable Water

Collected by
Collected date/time
05/11/23 11:40
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

G57S L1617727-03 Non-Potable Water

Collected by
Collected date/time
05/11/23 15:22
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

G64S L1617727-04 Non-Potable Water

Collected by
Collected date/time
05/11/23 15:11
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

EB-4 L1617727-05 Non-Potable Water

Collected by
Collected date/time
05/11/23 16:00
Received date/time
05/18/23 09:15

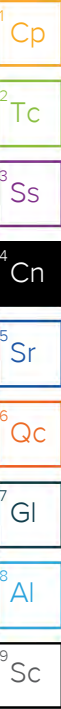
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0869	U	0.200	0.359	06/10/2023 08:55	WG2072260
(T) Barium	113			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	135			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.829		0.447	0.508	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.742		0.400	0.359	06/14/2023 16:23	WG2072628
(T) Barium-133	76.2			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0966	U	0.286	0.513	06/10/2023 08:55	WG2072260
(T) Barium	99.1			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	119			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.152	U	0.335	0.559	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.152	J	0.174	0.223	06/14/2023 16:23	WG2072628
(T) Barium-133	73.5			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.290	J	0.220	0.387	06/10/2023 08:55	WG2072260
(T) Barium	104			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	118			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.432	J	0.287	0.467	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.143	J	0.184	0.261	06/14/2023 16:23	WG2072628
(T) Barium-133	93.3			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.231	U	0.242	0.441	06/10/2023 08:55	WG2072260
(T) Barium	120			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	107			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.232	J	0.306	0.484	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.232		0.187	0.200	06/14/2023 16:23	WG2072628
(T) Barium-133	88.7			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.399	U	0.263	0.485	06/10/2023 08:55	WG2072260
(T) Barium	115			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	102			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.000	U	0.298	0.590	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0343	U	0.141	0.336	06/14/2023 16:23	WG2072628
(T) Barium-133	75.0			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3935700-1 06/10/23 08:55

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	-0.0977	<u>U</u>	0.152	0.279
(T) Barium	114		114	
(T) Yttrium	93.4		93.4	

L1617729-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617729-01 06/10/23 08:55 • (DUP) R3935700-5 06/10/23 08:55

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.74	0.333	0.547	0.290	0.402	0.547	1	143	2.78	<u>U</u>	20	3
(T) Barium	81.8			86.3	86.3							
(T) Yttrium	139			132	132							

Laboratory Control Sample (LCS)

(LCS) R3935700-2 06/10/23 08:55

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.57	91.5	80.0-120	
(T) Barium			110		
(T) Yttrium			95.4		

L1617726-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617726-01 06/10/23 08:55 • (MS) R3935700-3 06/10/23 08:55 • (MSD) R3935700-4 06/10/23 08:55

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.0209	15.4	14.2	91.8	84.9	1	70.0-130			7.78		20
(T) Barium		114			120	116							
(T) Yttrium		105			101	109							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3937863-1 06/14/23 16:23

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.0613	⬇	0.0908	0.136
(T) Barium-133	47.6		47.6	

L1617727-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617727-01 06/14/23 16:23 • (DUP) R3937863-5 06/14/23 16:23

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.742	0.400	0.359	0.496	0.326	0.359	1	39.8	0.477		20	3
(T) Barium-133	76.2			83.9	83.9							

Laboratory Control Sample (LCS)

(LCS) R3937863-2 06/14/23 16:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.91	118	80.0-120	
(T) Barium-133			61.3		

L1617729-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617729-03 06/14/23 16:23 • (MS) R3937863-3 06/14/23 16:23 • (MSD) R3937863-4 06/14/23 16:23

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0663	22.3	22.1	111	110	1	75.0-125			0.946		20
(T) Barium-133		90.1			79.0	69.9							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

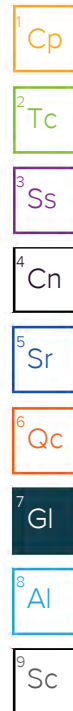
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

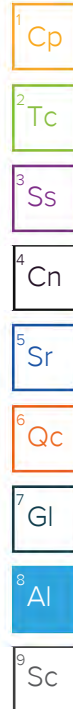
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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



A111

Internal Transfer Chain of Custody

State of Origin: IL

Cert. Needed: ☒ YES ☐ NOPace Analytical®
www.pacelabs.com

Owner Received

Results Required

GE02656

Workorder Name: VISTRA - DUCK CREEK

Date: 5/11/2023

By: 5/28/2023

Report To: Subcontract To: Requested Analysis

Gail Schindler
Pace Analytical - IL/MO
2231 W. Altorfer Drive
Peoria, IL 61615
800-752-6651Pace Analytical - Mt Juliet
12065 Lebanon Rd
Mt Juliet TN 37122

800-752-0051

Preserved Containers													Radium 226	Radium 228											LAB USE ONLY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

U61727

Transfers	Date/Time	Received By	Date/Time	Comments
1	5/14/2023 14:31			
2				
3		Hailey Robinson	5/18/23 09:15	Needs 226, 228 and combined Include QC summary and add 10 day TAT

Cooler Temperature on Receipt _____ °C Custody Seal ☒ Y or N Received on Ice ☒ Y or N Sample Intact ☒ Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N If Applicable
 COC Signed/Accurate: ☒ Y ☐ N VOA Zero Headspace: ☒ Y ☐ N
 Bottles arrive intact: ☒ Y ☐ N Pres. Correct/Check: ☒ Y ☐ N
 Correct bottles used: ☒ Y ☐ N
 Sufficient volume sent: ☒ Y ☐ N
 RAD Screen <0.5 mR/hr: ☒ Y ☐ N



Ship to :

Pace Analytical Services, LLC

12065 Lebanon Rd

Mt Juliet TN 37122

(615)758-5858

INTER_LABORATORY WORK ORDER # GE02656

(To be complete by sending lab)

Sending Project No:	GE02656
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	5/17/2023
REQUESTED COMPLETION DATE:	5/28/2023

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

All questions should be addressed to sending project manager.

Requested Reportable Units

Report Wet or Dry Weight?

Cert Needed:

IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226		5		5	\$121.05	\$605.25
Radium 228		5		5	\$121.05	\$605.25
		1		1		\$0.00
TOTAL						\$1,210.50

Special Requirements:

Report as 226, 228 & combined 226/228. Include QC summary & edd

Receiving Region Department	Actg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept
radiological	38	\$1,210.50	\$968.40	\$242.10
* Custom Revenue Allocation		TOTAL	\$968.40	\$242.10

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region:

☐

Yes

☒

No

CONFIRMATION OF WORK COMPLETED

Date Completed:

Receiving Project Manager:

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GE02656

U607727

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE02656-01
Name: BA01

Sampled: 05/11/23 13:33
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/26/23 16:00

11/07/23 13:33

Sample: GE02656-02
Name: BA04

Sampled: 05/11/23 11:40
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/26/23 16:00

11/07/23 11:40

Sample: GE02656-03
Name: G57S

Sampled: 05/11/23 15:22
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/26/23 16:00

11/07/23 15:22

Sample: GE02656-04
Name: G64S

Sampled: 05/11/23 15:11
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/26/23 16:00

11/07/23 15:11

Sample: GE02656-05
Name: EB-4

Sampled: 05/11/23 16:00
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/26/23 16:00

11/07/23 16:00

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GE02656

LI617727

Please email results to Gail Schindler at gail.schindler@pacelabs.com

Date Shipped: 5/17/23 Total # of Containers: 5 Sample Origin (State): IL PO #:

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed:

Relinquished By	Date/Time	Received By	Date/Time	Sample Temperature Upon Receipt	____ °C
	<u>5/17/23 1415</u>			Sample(s) Received on Ice	Y or N
				Proper Bottles Received in Good Condition	Y or N
				Bottles Filled with Adequate Volume	Y or N
				Samples Received Within Hold Time	Y or N
				Date/Time Taken From Sample Bottle	Y or N

Relinquished By	Date/Time	Received By	Date/Time

L1617727

Tracking Numbers		N5 A7 Temperature
6319 5998 8690		19.3±0.17.3
6319 5998 8715		17.3±0.17.3
6319 5998 8726		19.4±0.19.4
6319 5998 8704		13.1±0.13.1
6319 5998 8689		17.6±0.17.6

Pace IR - Peoria, IL

Sample Delivery Group: L1617729
Samples Received: 05/18/2023
Project Number: GE02775
Description: Vistra-Duck Creek
Site: 001
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:


[Preliminary Report]Haley Torrence
Project Manager

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

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SAMPLE SUMMARY

BA05 L1617729-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/12/23 10:50 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

BA06 L1617729-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/12/23 12:19 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

G54L L1617729-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/12/23 12:20 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

G54S L1617729-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/12/23 13:04 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

G54S DUP L1617729-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/12/23 13:04 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

G60L L1617729-06 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/12/23 10:48 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

G60S L1617729-07 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/12/23 11:00 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

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

EB-7 L1617729-08 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/12/23 12:45 05/18/23 09:15

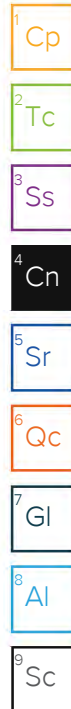
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.74		0.333	0.547	06/10/2023 08:55	WG2072260
(T) Barium	81.8			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	139	C1		30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.07		0.425	0.628	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.326		0.264	0.309	06/14/2023 16:23	WG2072628
(T) Barium-133	90.3			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.683		0.233	0.398	06/10/2023 08:55	WG2072260
(T) Barium	101			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	134			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.11		0.420	0.577	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.426		0.349	0.418	06/14/2023 16:23	WG2072628
(T) Barium-133	81.8			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.429		0.241	0.420	06/10/2023 08:55	WG2072260
(T) Barium	121			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	115			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.495	J	0.295	0.517	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0663	U	0.170	0.301	06/14/2023 16:23	WG2072628
(T) Barium-133	90.1			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.749		0.274	0.469	06/10/2023 08:55	WG2072260
(T) Barium	114			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	138	C1		30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.881		0.335	0.551	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.131	J	0.192	0.289	06/14/2023 16:23	WG2072628
(T) Barium-133	86.3			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.396	U	0.285	0.529	06/10/2023 08:55	WG2072260
(T) Barium	114			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	94.8			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.229	U	0.426	0.700	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.229	J	0.317	0.459	06/14/2023 16:23	WG2072628
(T) Barium-133	65.7			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.394	U	0.220	0.414	06/10/2023 08:55	WG2072260
(T) Barium	113			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	119			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.209	J	0.309	0.498	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.209	J	0.217	0.276	06/14/2023 16:23	WG2072628
(T) Barium-133	88.5			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.528		0.297	0.517	06/10/2023 08:55	WG2072260
(T) Barium	108			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	150	C1		30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.911		0.467	0.689	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.383	J	0.360	0.456	06/14/2023 16:23	WG2072628
(T) Barium-133	62.1			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0250	U	0.235	0.425	06/10/2023 08:55	WG2072260
(T) Barium	108			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	127			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0799	U	0.279	0.512	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0550	U	0.150	0.285	06/14/2023 16:23	WG2072628
(T) Barium-133	63.2			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3935700-1 06/10/23 08:55

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	-0.0977	<u>U</u>	0.152	0.279
(T) Barium	114		114	
(T) Yttrium	93.4		93.4	

L1617729-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617729-01 06/10/23 08:55 • (DUP) R3935700-5 06/10/23 08:55

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.74	0.333	0.547	0.290	0.402	0.547	1	143	2.78	<u>U</u>	20	3
(T) Barium	81.8			86.3	86.3							
(T) Yttrium	139			132	132							

Laboratory Control Sample (LCS)

(LCS) R3935700-2 06/10/23 08:55

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.57	91.5	80.0-120	
(T) Barium			110		
(T) Yttrium			95.4		

L1617726-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617726-01 06/10/23 08:55 • (MS) R3935700-3 06/10/23 08:55 • (MSD) R3935700-4 06/10/23 08:55

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.0209	15.4	14.2	91.8	84.9	1	70.0-130			7.78		20
(T) Barium		114			120	116							
(T) Yttrium		105			101	109							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gf

8Al

9Sc

Method Blank (MB)

(MB) R3937863-1 06/14/23 16:23

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.0613	↓	0.0908	0.136
(T) Barium-133	47.6		47.6	

L1617727-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617727-01 06/14/23 16:23 • (DUP) R3937863-5 06/14/23 16:23

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.742	0.400	0.359	0.496	0.326	0.359	1	39.8	0.477		20	3
(T) Barium-133	76.2			83.9	83.9							

Laboratory Control Sample (LCS)

(LCS) R3937863-2 06/14/23 16:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.91	118	80.0-120	
(T) Barium-133			61.3		

L1617729-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617729-03 06/14/23 16:23 • (MS) R3937863-3 06/14/23 16:23 • (MSD) R3937863-4 06/14/23 16:23

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0663	22.3	22.1	111	110	1	75.0-125			0.946		20
(T) Barium-133		90.1			79.0	69.9							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

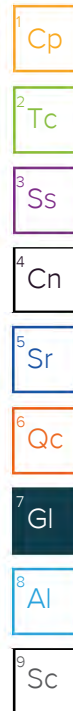
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.



ACCREDITATIONS & LOCATIONS

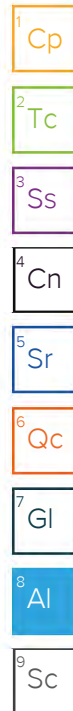
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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



A110

Internal Transfer Chain of Custody

State of Origin: IL

Cert. Needed: ☒ YES ☐ NOPace Analytical®
www.paceqlabs.com

Owner Received

Results Required

GE02775

Workorder Name: VISTRA - DUCK CREEK

Date: 5/12/2023

By: 5/28/2023

Report To:	Subcontract To:	Requested Analysis
Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				Radium 226	Radium 228											LAB USE ONLY
						HNO3																
1	BA05	GRAB	5/12/2023 10:50	GE02775-01	GW	X				X	X											-01
2	BA06	GRAB	5/12/2023 12:19	GE02775-02	GW	X				X	X											-02
3	G54L	GRAB	5/12/2023 12:20	GE02775-03	GW	X				X	X											-03
4	G54S	GRAB	5/12/2023 13:04	GE02775-04	GW	X				X	X											-04
5	G54S DUP	GRAB	5/12/2023 13:04	GE02775-05	GW	X				X	X											-05
6	G60L	GRAB	5/12/2023 10:48	GE02775-06	GW	X				X	X											-06
7	G60S	GRAB	5/12/2023 11:00	GE02775-07	GW	X				X	X											-07
8	EB-7	GRAB	5/12/2023 12:45	GE02775-08	DI	X				X	X											-08

UL67729

Transfers	Date/Time	Received By	Date/Time	Comments
1	5/17/23 1440			Needs 226, 228 and combined
2				Include QC summary and add
3				10 day TAT

Cooler Temperature on Receipt _____ °C	Custody Seal ☒ Y or ☐ N	Received on Ice ☒ Y or ☐ N	Sample Intact ☒ Y or ☐ N
--	--	---	---

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N If Applicable
 COC Signed/Accurate: ☒ Y ☐ N VOA Zero Headspace: ☒ Y ☐ N
 Bottles arrive intact: ☒ Y ☐ N Pres. Correct/Check: ☒ Y ☐ N
 Correct bottles used: ☒ Y ☐ N
 Sufficient volume sent: ☒ Y ☐ N
 RAD Screen <0.5 mR/hr: ☒ Y ☐ N



Ship to :

Pace Analytical Services, LLC
12065 Lebanon Rd
Mt Juliet TN 37122

(615)758-5858

INTER_LABORATORY WORK ORDER # 467729
GE02775

(To be complete by sending lab)

Sending Project No:	GE02775
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	5/17/2023
REQUESTED COMPLETION DATE:	5/28/2023

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

All questions should be addressed to sending project manager.

Requested Reportable Units

Report Wet or Dry Weight?

Cert Needed:

IL

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226		8		8	\$121.05	\$968.40
Radium 228		8		8	\$121.05	\$968.40
		1		1		\$0.00
TOTAL						\$1,936.80

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

Receiving Region Department	Actg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$1,936.80	\$1,549.44	\$387.36
		TOTAL	\$1,549.44	\$387.36

* Custom Revenue Allocation

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region:

☐

Yes

☒

No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____

Receiving Project Manager: _____

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

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

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GE02775

461729

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE02775-06
Name: G60L

Sampled: 05/12/23 10:48
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/29/23 16:00

11/08/23 10:48

Sample: GE02775-07
Name: G60S

Sampled: 05/12/23 11:00
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/29/23 16:00

11/08/23 11:00

Sample: GE02775-08
Name: EB - 7

Sampled: 05/12/23 12:45
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/29/23 16:00

11/08/23 12:45

Please email results to Gail Schindler at gail.schindler@pacelabs.com

Date Shipped: *5/17/23*

Total # of Containers: *8*

Sample Origin (State): *IL*

PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH

Date Results Needed: _____

Relinquished By *[Signature]*

Date/Time *5/17/23 1440*

Received By

Date/Time

Sample Temperature Upon Receipt _____ °C

Sample(s) Received on Ice

Y or N

Proper Bottles Received in Good Condition

Y or N

Bottles Filled with Adequate Volume

Y or N

Samples Received Within Hold Time

Y or N

Relinquished By

Date/Time

Received By

Date/Time

Date/Time Taken From Sample Bottle

Y or N

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GE02775

U617729

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE02775-01
Name: BA05

Sampled: 05/12/23 10:50
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/29/23 16:00

11/08/23 10:50

Sample: GE02775-02
Name: BA06

Sampled: 05/12/23 12:19
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/29/23 16:00

11/08/23 12:19

Sample: GE02775-03
Name: G54L

Sampled: 05/12/23 12:20
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/29/23 16:00

11/08/23 12:20

Sample: GE02775-04
Name: G54S

Sampled: 05/12/23 13:04
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/29/23 16:00

11/08/23 13:04

Sample: GE02775-05
Name: G54S DUP

Sampled: 05/12/23 13:04
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

05/29/23 16:00

11/08/23 13:04

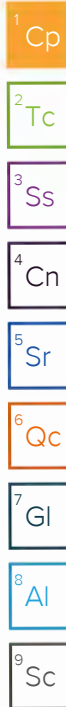
U47729

Tracking Numbers		N5 A7 Temperature
6319 5998 8690		19.3±0.17.3
6319 5998 8715		17.3±0.17.3
6319 5998 8726		19.4±0.19.4
6319 5998 8704		13.1±0.13.1
6319 5998 8689		17.6±0.17.6



ANALYTICAL REPORT

June 23, 2023



Pace IR - Peoria, IL

Sample Delivery Group: L1617724
Samples Received: 05/18/2023
Project Number: GE03000
Description: Vistra-Duck Creek
Site: 001
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

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¹	Cp
²	Tc
³	Ss
⁴	Cn
⁵	Sr
⁶	Qc
⁷	Gl
⁸	Al
⁹	Sc

SAMPLE SUMMARY

BA02 L1617724-01 Non-Potable Water

Collected by
Collected date/time
05/15/23 11:23
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

G02S L1617724-02 Non-Potable Water

Collected by
Collected date/time
05/15/23 15:18
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

G50S L1617724-03 Non-Potable Water

Collected by
Collected date/time
05/15/23 12:56
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

G51S L1617724-04 Non-Potable Water

Collected by
Collected date/time
05/15/23 11:26
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

EB #8 L1617724-05 Non-Potable Water

Collected by
Collected date/time
05/15/23 17:50
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

EB #9 L1617724-06 Non-Potable Water

Collected by
Collected date/time
05/15/23 17:50
Received date/time
05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

BA02G64L L1617724-07 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/15/23 15:00 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

BA02OM25S L1617724-08 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/15/23 13:14 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

OM12 L1617724-09 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/15/23 14:05 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

OM21 L1617724-10 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/15/23 13:24 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

OM23D L1617724-11 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/15/23 16:00 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

OM11 L1617724-12 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/15/23 12:33 05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

OM14D L1617724-13 Non-Potable Water

Collected by

Collected date/time

Received date/time

05/15/23 11:35

05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

OM19 L1617724-14 Non-Potable Water

Collected by

Collected date/time

Received date/time

05/15/23 15:28

05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2071924	1	06/05/23 19:10	06/09/23 20:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072626	1	06/14/23 08:51	06/16/23 00:06	RGT	Mt. Juliet, TN

⁴Cn

⁵Sr

⁶Qc

OM20 L1617724-15 Non-Potable Water

Collected by

Collected date/time

Received date/time

05/15/23 11:10

05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2072260	1	06/06/23 11:11	06/10/23 08:55	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

⁷Gl

⁸Al

⁹Sc

ACCOUNT:

Pace IR - Peoria, IL

PROJECT:

GE03000

SDG:

L1617724

DATE/TIME:

06/23/23 15:06

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PAGE:

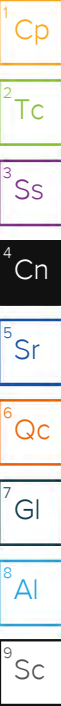
5 of 35

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.368	J	0.237	0.423	06/09/2023 20:54	WG2071924
(T) Barium	97.4			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	106			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.478	J	0.332	0.563	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.110	U	0.233	0.371	06/16/2023 00:06	WG2072626
(T) Barium-133	83.7			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.824		0.222	0.381	06/09/2023 20:54	WG2071924
(T) Barium	94.2			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	109			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.42		0.394	0.472	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.592		0.325	0.278	06/16/2023 00:06	WG2072626
(T) Barium-133	91.1			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.256	U	0.399	0.734	06/09/2023 20:54	WG2071924
(T) Barium	106			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	96.8			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.146	U	0.469	0.823	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.146	J	0.247	0.372	06/16/2023 00:06	WG2072626
(T) Barium-133	81.6			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.687		0.223	0.387	06/09/2023 20:54	WG2071924
(T) Barium	117			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	120			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.07		0.380	0.531	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.387		0.308	0.363	06/16/2023 00:06	WG2072626
(T) Barium-133	80.7			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.156	U	0.246	0.447	06/09/2023 20:54	WG2071924
(T) Barium	107			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	98.7			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.234	U	0.325	0.575	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0781	U	0.212	0.362	06/16/2023 00:06	WG2072626
(T) Barium-133	77.9			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0948	U	0.263	0.484	06/09/2023 20:54	WG2071924
(T) Barium	102			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	104			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0946	U	0.337	0.606	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0946	U	0.211	0.365	06/16/2023 00:06	WG2072626
(T) Barium-133	73.9			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.627		0.257	0.451	06/09/2023 20:54	WG2071924
(T) Barium	102			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	112			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.938		0.373	0.561	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.311	J	0.270	0.334	06/16/2023 00:06	WG2072626
(T) Barium-133	94.4			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	27.8		6.30	10.6	06/09/2023 20:54	WG2071924
(T) Barium	8.76	C2		30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	115			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	27.8		6.30	10.6	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0337	U	0.104	0.444	06/16/2023 00:06	WG2072626
(T) Barium-133	41.6			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.05		0.297	0.511	06/09/2023 20:54	WG2071924
(T) Barium	82.2			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	109			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.69		0.424	0.568	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.640		0.303	0.248	06/16/2023 00:06	WG2072626
(T) Barium-133	138			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.42		0.310	0.523	06/09/2023 20:54	WG2071924
(T) Barium	92.6			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	97.7			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.53		0.358	0.590	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.112	J	0.179	0.274	06/16/2023 00:06	WG2072626
(T) Barium-133	132			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.103	U	0.293	0.542	06/09/2023 20:54	WG2071924
(T) Barium	92.1			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	120			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.174	U	0.331	0.566	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.174		0.154	0.164	06/16/2023 00:06	WG2072626
(T) Barium-133	123			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.290	J	0.237	0.427	06/09/2023 20:54	WG2071924
(T) Barium	96.8			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	110			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.494		0.308	0.492	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.204	J	0.197	0.244	06/16/2023 00:06	WG2072626
(T) Barium-133	121			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0375	U	0.314	0.573	06/09/2023 20:54	WG2071924
(T) Barium	91.1			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	108			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.199	U	0.371	0.626	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.199	J	0.197	0.252	06/16/2023 00:06	WG2072626
(T) Barium-133	114			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.588		0.275	0.486	06/09/2023 20:54	WG2071924
(T) Barium	87.6			30.0-143	06/09/2023 20:54	WG2071924
(T) Yttrium	113			30.0-136	06/09/2023 20:54	WG2071924

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.849		0.358	0.560	06/16/2023 00:06	WG2072626

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.261	J	0.229	0.279	06/16/2023 00:06	WG2072626
(T) Barium-133	114			30.0-143	06/16/2023 00:06	WG2072626

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0114	U	0.270	0.484	06/10/2023 08:55	WG2072260
(T) Barium	93.6			30.0-143	06/10/2023 08:55	WG2072260
(T) Yttrium	132			30.0-136	06/10/2023 08:55	WG2072260

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.127	U	0.314	0.538	06/14/2023 16:23	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.115	J	0.160	0.234	06/14/2023 16:23	WG2072628
(T) Barium-133	79.1			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3937268-1 06/09/23 20:54

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.324		0.147	0.260
(T) Barium	106		106	
(T) Yttrium	107		107	

L1617724-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1617724-03 06/09/23 20:54 • (DUP) R3937268-5 06/09/23 20:54

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.256	0.399	0.734	0.705	0.376	0.734	1	200	1.75		20	3
(T) Barium	106			94.2	94.2							
(T) Yttrium	96.8			115	115							

Laboratory Control Sample (LCS)

(LCS) R3937268-2 06/09/23 20:54

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.07	81.4	80.0-120	
(T) Barium			97.6		
(T) Yttrium			120		

L1617720-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617720-08 06/09/23 20:54 • (MS) R3937268-3 06/09/23 20:54 • (MSD) R3937268-4 06/09/23 20:54

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.410	8.66	9.60	82.5	91.9	1	70.0-130			10.2		20
(T) Barium		89.6			105	98.0							
(T) Yttrium		101			118	106							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R3935700-1 06/10/23 08:55

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	-0.0977	U	0.152	0.279
(T) Barium	114		114	
(T) Yttrium	93.4		93.4	

L1617729-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617729-01 06/10/23 08:55 • (DUP) R3935700-5 06/10/23 08:55

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.74	0.333	0.547	0.290	0.402	0.547	1	143	2.78	U	20	3
(T) Barium	81.8			86.3	86.3							
(T) Yttrium	139			132	132							

Laboratory Control Sample (LCS)

(LCS) R3935700-2 06/10/23 08:55

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.57	91.5	80.0-120	
(T) Barium			110		
(T) Yttrium			95.4		

L1617726-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617726-01 06/10/23 08:55 • (MS) R3935700-3 06/10/23 08:55 • (MSD) R3935700-4 06/10/23 08:55

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.0209	15.4	14.2	91.8	84.9	1	70.0-130			7.78		20
(T) Barium		114			120	116							
(T) Yttrium		105			101	109							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3940721-1 06/15/23 18:26

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	-0.0163	<u>U</u>	0.0422	0.100
(T) Barium-133	82.0		82.0	

L1617724-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617724-01 06/16/23 00:06 • (DUP) R3940721-5 06/15/23 18:26

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.110	0.233	0.371	0.121	0.248	0.371	1	9.44	0.0320	<u>U</u>	20	3
(T) Barium-133	83.7			82.7	82.7							

Laboratory Control Sample (LCS)

(LCS) R3940721-2 06/15/23 18:26

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.69	114	80.0-120	
(T) Barium-133			80.8		

L1617720-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617720-03 06/15/23 18:26 • (MS) R3940721-3 06/15/23 18:26 • (MSD) R3940721-4 06/15/23 18:26

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.117	21.7	23.9	108	119	1	75.0-125			9.58		20
(T) Barium-133		85.5			80.8	86.0							

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3937863-1 06/14/23 16:23

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.0613	⬇	0.0908	0.136
(T) Barium-133	47.6		47.6	

L1617727-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617727-01 06/14/23 16:23 • (DUP) R3937863-5 06/14/23 16:23

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.742	0.400	0.359	0.496	0.326	0.359	1	39.8	0.477		20	3
(T) Barium-133	76.2			83.9	83.9							

Laboratory Control Sample (LCS)

(LCS) R3937863-2 06/14/23 16:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.91	118	80.0-120	
(T) Barium-133			61.3		

L1617729-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617729-03 06/14/23 16:23 • (MS) R3937863-3 06/14/23 16:23 • (MSD) R3937863-4 06/14/23 16:23

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0663	22.3	22.1	111	110	1	75.0-125			0.946		20
(T) Barium-133		90.1			79.0	69.9							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

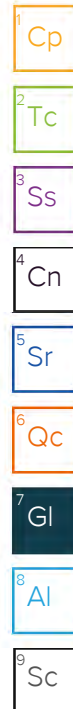
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

C2	Tracer recovery limits have been exceeded; values are outside lower control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.



ACCREDITATIONS & LOCATIONS

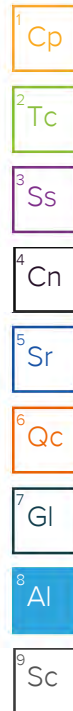
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



Internal Transfer Chain of Custody

State of Origin: IL

Cert. Needed: ☒ YES ☐ NO

Pace Analytical
www.pacelabs.com

Owner Received

Results Required

Date: 5/16/2023

By: 5/28/2023

GE3000

~~GE02775~~

Workorder Name: VISTRA - DUCK CREEK

Report To:

Subcontract To:

Requested Analysis

Gail Schindler

Pace Analytical - IL/MO

2231 W. Altorfer Drive

Peoria, IL 61615

800-752-6651

Pace Analytical - Mt Juliet

12065 Lebanon Rd

Mt Juliet TN 37122

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3	Preserved Containers				Radium 226	Radium 228									U66177 LAB USE ONLY	
1	BA02	GRAB	5/15/2023 11:23	GE03000-01	GW	X					X	X									-01	
2	G02S	GRAB	5/15/2023 15:18	GE03000-02	GW	X					X	X									-02	
3	G50S	GRAB	5/15/2023 12:56	GE03000-03	GW	X					X	X									-03	
4	G51S	GRAB	5/15/2023 11:26	GE03000-04	GW	X					X	X									-04	
5	EB #8	GRAB	5/15/2023 17:50	GE03000-05	DI	X					X	X									-05	
6	EB #9	GRAB	5/15/2023 17:50	GE03000-06	DI	X					X	X									-06	
7	G64L	GRAB	5/15/2023 15:00	GE03000-07	GW	X					X	X									-07	
8	OM25S	GRAB	5/15/2023 13:14	GE03000-08	GW	X					X	X									-08	
9	OM12	GRAB	5/15/2023 14:05	GE03000-09	GW	X					X	X									-09	
10	OM21	GRAB	5/15/2023 13:24	GE03000-10	GW	X					X	X									-10	
Transfers			3/14/2023 14:31	Date/Time	Received By				Date/Time				Comments									
1				3/17/23	1500								Needs 226, 228 and combined									
2													Include QC summary and add									
3					Hailu Rabin				5/15/23 09:15				10 day TAT									

Cooler Temperature on Receipt

°C	Custody Seal Y or N
----	---------------------

Received on Ice Y or N

Sample Intact ☒ Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 2

Sample Receipt Checklist

COC Seal Present/Intact: Y N If Applicable
 COC Signed/Accurate: Y N VOA Zero Headspace: Y N
 Bottles arrive intact: Y N Pres. Correct/Check: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 RAD Screen <0.5 mR/hr: Y N

GE 3000

Cert. Needed: ☒ YES ☐ NO



Results Required

By: 5/28/2023

~~GE02775~~

Report To:

Gail Schindler

Pace Analytical - IL/MO

2231 W. Altorfer Drive

Peoria, IL 61615

800-752-6651

Pace Analytical - Mt Juliet

12065 Lebanon Rd

Mt Juliet TN 37122

Preserved Containers

[illegible]

Cooler Temperature on Receipt

°C

Custody Seal Y or N

Received on Ice Y or N

Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 2 of 2

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
GE03000

461724

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE03000-01
Name: BA02

Sampled: 05/15/23 11:23
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
----------	-----	---------	----------

01-Radium 226/228 combined	05/30/23 16:00	11/11/23 11:23	
----------------------------	----------------	----------------	--

Sample: GE03000-02
Name: G02S

Sampled: 05/15/23 15:18
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
----------	-----	---------	----------

01-Radium 226/228 combined	05/30/23 16:00	11/11/23 15:18	
----------------------------	----------------	----------------	--

Sample: GE03000-03
Name: G50S

Sampled: 05/15/23 12:56
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
----------	-----	---------	----------

01-Radium 226/228 combined	05/30/23 16:00	11/11/23 12:56	
----------------------------	----------------	----------------	--

Sample: GE03000-04
Name: G51S

Sampled: 05/15/23 11:26
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
----------	-----	---------	----------

01-Radium 226/228 combined	05/30/23 16:00	11/11/23 11:26	
----------------------------	----------------	----------------	--

Sample: GE03000-05
Name: EB #8

Sampled: 05/15/23 17:50
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
----------	-----	---------	----------

01-Radium 226/228 combined	05/30/23 16:00	11/11/23 17:50	
----------------------------	----------------	----------------	--

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GE03000

UL617724

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE03000-06
Name: EB #9

Sampled: 05/15/23 17:50
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis **Due** **Expires** **Comments**

01-Radium 226/228 combined 05/30/23 16:00 11/11/23 17:50

Sample: GE03000-07
Name: G64L

Sampled: 05/15/23 15:00
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis **Due** **Expires** **Comments**

01-Radium 226/228 combined 05/30/23 16:00 11/11/23 15:00

Sample: GE03000-08
Name: OM25S

Sampled: 05/15/23 13:14
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis **Due** **Expires** **Comments**

01-Radium 226/228 combined 05/30/23 16:00 11/11/23 13:14

Sample: GE03000-09
Name: OM12

Sampled: 05/15/23 14:05
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis **Due** **Expires** **Comments**

01-Radium 226/228 combined 05/30/23 16:00 11/11/23 14:05

Sample: GE03000-10
Name: OM21

Sampled: 05/15/23 13:24
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis **Due** **Expires** **Comments**

01-Radium 226/228 combined 05/30/23 16:00 11/11/23 13:24

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
GE03000

11617724

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE03000-11
Name: OM23D

Sampled: 05/15/23 16:00
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/30/23 16:00	11/11/23 16:00	

Sample: GE03000-12
Name: OR11

Sampled: 05/15/23 12:33
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/30/23 16:00	11/11/23 12:33	

Sample: GE03000-13
Name: OR14D

Sampled: 05/15/23 11:35
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/30/23 16:00	11/11/23 11:35	

Sample: GE03000-14
Name: OR19

Sampled: 05/15/23 15:28
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/30/23 16:00	11/11/23 15:28	

Sample: GE03000-15
Name: OR20

Sampled: 05/15/23 11:10
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/30/23 16:00	11/11/23 11:10	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

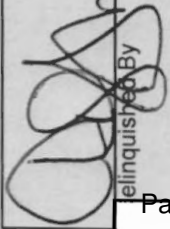
GE03000

44617724

Please email results to Gail Schindler at gail.schindler@pacelabs.com

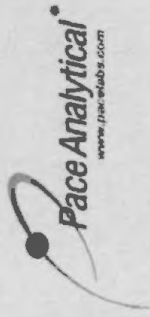
Date Shipped: 5/17/23 Total # of Containers: 15 Sample Origin (State): IL PO #:

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed:

Relinquished By		Date/Time	Received By	Date/Time	Sample Temperature Upon Receipt	°C
		5/17/23	500		Sample(s) Received on Ice	Y or N
					Proper Bottles Received in Good Condition	Y or N
					Bottles Filled with Adequate Volume	Y or N
					Samples Received Within Hold Time	Y or N
					Date/Time Taken From Sample Bottle	Y or N

4617724

Tracking Numbers	NS A7 Temperature
6319 5998 8690	19.3 $\pm$ 0.3
6319 5998 8715	17.3 $\pm$ 0.3
6319 5998 8726	19.4 $\pm$ 0.4
6319 5998 8704	13.1 $\pm$ 0.1
6319 5998 8689	17.6 $\pm$ 0.6



Ship to :

Pace Analytical Services, LLC
12065 Lebanon Rd
Mt Juliet TN 37122

(615)758-5858

4617724

INTER_LABORATORY WORK ORDER# GE02775

GE 3000

(To be complete by sending lab)

GE02775

GE 3000

Sending Project No:	GE02775
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	5/17/2023
REQUESTED COMPLETION DATE:	5/28/2023

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

All questions should be addressed to sending project manager.

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

WORK REQUESTED				
Method Description	Container Type	Quantity of	Preservative	Quantity of
Radium 226		8		8
Radium 228		8		8
		1		1
TOTAL				\$1,936.80

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

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$1,936.80	\$1,549.44	\$387.36
* Custom Revenue Allocation		TOTAL	\$1,549.44	\$387.36

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

Date Completed: _____ Receiving Project Manager: _____

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

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



ANALYTICAL REPORT

June 21, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1619139
Samples Received: 05/23/2023
Project Number: GEO3280
Description: Vistra-Duck Creek
Site: 01
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GEO3280

SDG:
L1619139

DATE/TIME:
06/21/23 09:03

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² Tc

³ Ss

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⁸ Al

⁹ Sc

SAMPLE SUMMARY

OM01 L1619139-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/16/23 10:48 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

OM04S L1619139-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/16/23 12:15 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN

OM24D L1619139-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/16/23 14:58 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN

OM24D DUP L1619139-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/16/23 14:58 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN

OR02 L1619139-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/16/23 12:14 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN

OR03D L1619139-06 Non-Potable Water

Collected by
Collected date/time
Received date/time

05/16/23 13:36 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

OR04D L1619139-07 Non-Potable Water

Collected by
Collected date/time
05/16/23 10:55
Received date/time
05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

EQUIPMENT BLANK 10 L1619139-08 Non-Potable Water

Collected by
Collected date/time
05/16/23 17:41
Received date/time
05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN

⁵ Sr

⁶ Qc

⁷ Gl

EQUIPMENT BLANK 11 L1619139-09 Non-Potable Water

Collected by
Collected date/time
05/16/23 17:26
Received date/time
05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:47	RGT	Mt. Juliet, TN

⁸ Al

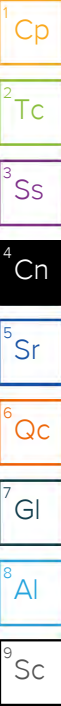
⁹ Sc

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.799		0.312	0.549	06/14/2023 17:51	WG2073396
(T) Barium	87.3			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	104			30.0-136	06/14/2023 17:51	WG2073396

1
Cp

2
Tc

3
Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.799		0.346	0.630	06/16/2023 17:46	WG2074499

4
Cn

5
Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.00744	U	0.149	0.310	06/16/2023 17:46	WG2074499
(T) Barium-133	90.0			30.0-143	06/16/2023 17:46	WG2074499

6
Qc

7
Gl

8
Al

9
Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.23		0.345	0.596	06/14/2023 17:51	WG2073396
(T) Barium	74.9			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	97.8			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.28		0.407	0.708	06/16/2023 17:47	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0507	U	0.216	0.382	06/16/2023 17:47	WG2074499
(T) Barium-133	89.6			30.0-143	06/16/2023 17:47	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.224	U	0.330	0.601	06/14/2023 17:51	WG2073396
(T) Barium	72.0			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	103			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.290	U	0.370	0.670	06/16/2023 17:47	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0651	U	0.167	0.296	06/16/2023 17:47	WG2074499
(T) Barium-133	91.8			30.0-143	06/16/2023 17:47	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0449	U	0.288	0.535	06/14/2023 17:51	WG2073396
(T) Barium	73.6			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	106			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0414	U	0.320	0.601	06/16/2023 17:47	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0414	U	0.140	0.273	06/16/2023 17:47	WG2074499
(T) Barium-133	91.3			30.0-143	06/16/2023 17:47	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.715		0.344	0.611	06/14/2023 17:51	WG2073396
(T) Barium	86.9			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	113			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.68		0.544	0.703	06/16/2023 17:47	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.964		0.421	0.348	06/16/2023 17:47	WG2074499
(T) Barium-133	86.7			30.0-143	06/16/2023 17:47	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.05		0.376	0.658	06/14/2023 17:51	WG2073396
(T) Barium	75.6			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	92.4			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.21		0.422	0.709	06/16/2023 17:47	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.160	J	0.192	0.264	06/16/2023 17:47	WG2074499
(T) Barium-133	92.3			30.0-143	06/16/2023 17:47	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.89		0.313	0.508	06/14/2023 17:51	WG2073396
(T) Barium	72.8			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	106			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.39		0.434	0.593	06/16/2023 17:47	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.500		0.301	0.306	06/16/2023 17:47	WG2074499
(T) Barium-133	92.6			30.0-143	06/16/2023 17:47	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.329	J	0.303	0.546	06/14/2023 17:51	WG2073396
(T) Barium	89.7			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	96.2			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.329	J	0.308	0.577	06/16/2023 17:47	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0242	U	0.0531	0.188	06/16/2023 17:47	WG2074499
(T) Barium-133	95.5			30.0-143	06/16/2023 17:47	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.206	U	0.361	0.661	06/14/2023 17:51	WG2073396
(T) Barium	91.1			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	103			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.213	U	0.372	0.695	06/16/2023 17:47	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.00692	U	0.0910	0.215	06/16/2023 17:47	WG2074499
(T) Barium-133	92.1			30.0-143	06/16/2023 17:47	WG2074499

1Cp

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3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3938842-1 06/14/23 17:51

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.488		0.154	0.268
(T) Barium	88.7		88.7	
(T) Yttrium	104		104	

L1619139-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1619139-09 06/14/23 17:51 • (DUP) R3938842-5 06/14/23 17:51

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.206	0.361	0.661	0.734	0.414	0.661	1	112	0.960	J	20	3
(T) Barium	91.1			80.7	80.7							
(T) Yttrium	103			97.4	97.4							

Laboratory Control Sample (LCS)

(LCS) R3938842-2 06/14/23 17:51

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.68	93.5	80.0-120	
(T) Barium			99.0		
(T) Yttrium			90.4		

L1619136-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1619136-03 06/14/23 17:51 • (MS) R3938842-3 06/14/23 17:51 • (MSD) R3938842-4 06/14/23 17:51

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.939	15.8	18.5	89.1	105	1	70.0-130			15.3		20
(T) Barium		79.0			81.7	85.2							
(T) Yttrium		105			108	95.2							

1Cp

2Tc

3Ss

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5Sr

6Qc

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8Al

9Sc

Method Blank (MB)

(MB) R3938909-1 06/16/23 17:46

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.00379	U	0.0352	0.0716
(T) Barium-133	90.6		90.6	

L1619139-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1619139-04 06/16/23 17:47 • (DUP) R3938909-5 06/16/23 17:46

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0414	0.140	0.273	0.175	0.247	0.273	1	124	0.471	J	20	3
(T) Barium-133	91.3			84.9	84.9							

Laboratory Control Sample (LCS)

(LCS) R3938909-2 06/16/23 17:46

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.35	107	80.0-120	
(T) Barium-133			87.7		

L1614550-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614550-02 06/16/23 17:46 • (MS) R3938909-3 06/16/23 17:46 • (MSD) R3938909-4 06/16/23 17:46

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.475	21.6	22.2	105	109	1	75.0-125			3.11		20
(T) Barium-133		91.2			88.6	87.5							

1
Cp

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Tc

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Ss

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Cn

5
Sr

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Qc

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Gl

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Al

9
Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

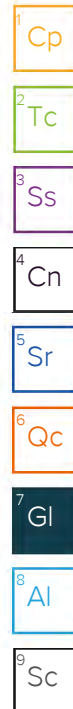
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

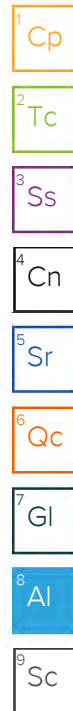
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



Internal Transfer Chain of Custody

State of Origin: IL

Cert. Needed: ☒ YES ☐ NOPace Analytical
www.pacelabs.com

Owner Received

Results Required

GE03280

Workorder Name: VISTRA - DUCK CREEK

Date: 5/16/2023

By:

6/1/2023

Report To: Subcontract To: Requested Analysis

Gail Schindler

Pace Analytical - IL/MO

2231 W. Altorfer Drive

Peoria, IL 61615

800-752-6651

Pace Analytical - Mt Juliet

12065 Lebanon Rd

Mt Juliet TN 37122

						Preserved Containers				Requested Analysis										LAB USE ONLY
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3				Radium 226	Radium 228									
1	OM01	GRAB	5/16/2023 10:48	GE03280-01	GW	X				X	X									01
2	OM04S	GRAB	5/16/2023 12:15	GE03280-02	GW	X				X	X									02
3	OM24D	GRAB	5/16/2023 14:58	GE03280-03	GW	X				X	X									03
4	OM24D DUP	GRAB	5/16/2023 14:58	GE03280-04	GW	X				X	X									04
5	OR02	GRAB	5/16/2023 12:14	GE03280-05	GW	X				X	X									05
6	OR03D	GRAB	5/16/2023 13:36	GE03280-06	GW	X				X	X									06
7	OR04D	GRAB	5/16/2023 10:55	GE03280-07	GW	X				X	X									07
8	EQUIPMENT BLANK 10	GRAB	5/16/2023 17:41	GE03280-08	DI	X				X	X									08
9	EQUIPMENT BLANK 11	GRAB	5/16/2023 17:26	GE03280-09	DI															09

Transfers	Date/Time	Received By	Date/Time	Comments
1	5/16/23 14:31		5/23/23 0550	Needs 226, 228 and combined Include QC summary and add 10 day TAT
2			5/23/23 0800	
3				

Cooler Temperature on Receipt _____ °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

6319 5999 0575 - 20.2 to ~ 20.2 NSM

0564 - 18.9 to ~ 18.9 NSM

6044
9 char



Ship to :
Pace Analytical Services, LLC
12065 Lebanon Rd
Mt Juliet TN 37122

(615)758-5858

INTER_LABORATORY WORK ORDER # GE03280

(To be complete by sending lab)

Sending Project No:	GE03280		
Receiving Project No:			
Check Box for Consolidated Invoice:	☐	☐	☐
Date Prepared:	5/17/2023		
REQUESTED COMPLETION DATE:	5/28/2023		

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

All questions should be addressed to sending project manager.

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

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226		9		9	\$121.05	\$1,089.45
Radium 228		9		9	\$121.05	\$1,089.45
		1		1		\$0.00
TOTAL						\$2,178.90

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

Receiving Region Department	Acctg. Code	Totals from Above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$2,178.90	\$1,743.12	\$435.78
* Custom Revenue Allocation		TOTAL	\$1,743.12	\$435.78

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

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

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

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GE03280

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE03280-01
Name: OM01

Sampled: 05/16/23 10:48
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/31/23 16:00	11/12/23 10:48	

Sample: GE03280-02
Name: OM04S

Sampled: 05/16/23 12:15
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/31/23 16:00	11/12/23 12:15	

Sample: GE03280-03
Name: OM24D

Sampled: 05/16/23 14:58
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/31/23 16:00	11/12/23 14:58	

Sample: GE03280-04
Name: OM24D DUP

Sampled: 05/16/23 14:58
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/31/23 16:00	11/12/23 14:58	

Sample: GE03280-05
Name: OR02

Sampled: 05/16/23 12:14
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/31/23 16:00	11/12/23 12:14	

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GE03280

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GE03280-06
Name: OR03D

Sampled: 05/16/23 13:36
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/31/23 16:00	11/12/23 13:36	

Sample: GE03280-07
Name: OR04D

Sampled: 05/16/23 10:55
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/31/23 16:00	11/12/23 10:55	

Sample: GE03280-08
Name: EB-10

Sampled: 05/16/23 17:41
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/31/23 16:00	11/12/23 17:41	

Sample: GE03280-09
Name: EB-11

Sampled: 05/16/23 17:26
Matrix: Ground Water
Preservative: HNO3, pH <2

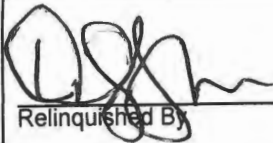
Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/31/23 16:00	11/12/23 17:26	

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GE03280

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Please email results to Gail Schindler at gail.schindler@pacelabs.com

Date Shipped: 5/22/23 Total # of Containers: 9 Sample Origin (State): IL PO #: _____
Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

	<u>5/22/23 0550</u>			Sample Temperature Upon Receipt	_____ °C
Relinquished By	Date/Time	Received By	Date/Time	Sample(s) Received on Ice	Y or N
				Proper Bottles Received in Good Condition	Y or N
				Bottles Filled with Adequate Volume	Y or N
				Samples Received Within Hold Time	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or N

Pace IR - Peoria, IL

Sample Delivery Group: L1619136
Samples Received: 05/23/2023
Project Number: GEO3619
Description: Vistra-Duck Creek
Site: 01
Report To: Gail Schindler
2231 W. Altorfer Drive
Peoria, IL 61615

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Entire Report Reviewed By:


[Preliminary Report]Haley Torrence
Project Manager

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

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

OM07 L1619136-01 Non-Potable Water

Collected by
Collected date/time
05/17/23 12:13
Received date/time
05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2072628	1	06/12/23 13:37	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2072628	1	06/12/23 13:37	06/14/23 16:23	RGT	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

OM22D L1619136-02 Non-Potable Water

Collected by
Collected date/time
05/17/23 16:55
Received date/time
05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN

⁴ Cn

⁵ Sr

⁶ Qc

OR06A L1619136-03 Non-Potable Water

Collected by
Collected date/time
05/17/23 13:45
Received date/time
05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN

⁷ Gl

⁸ Al

⁹ Sc

OR13S L1619136-04 Non-Potable Water

Collected by
Collected date/time
05/17/23 15:20
Received date/time
05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN

EQUIPMENT BLANK 12 L1619136-05 Non-Potable Water

Collected by
Collected date/time
05/17/23 17:08
Received date/time
05/23/23 09:00

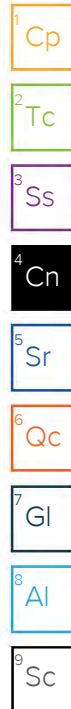
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2073396	1	06/08/23 08:06	06/14/23 17:51	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2074499	1	06/14/23 16:02	06/16/23 17:46	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.270	U	0.357	0.649	06/14/2023 17:51	WG2073396
(T) Barium	64.3			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	104			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.643	J	0.426	0.681	06/14/2023 17:51	WG2072628

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.373		0.233	0.207	06/14/2023 16:23	WG2072628
(T) Barium-133	95.9			30.0-143	06/14/2023 16:23	WG2072628

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.984		0.265	0.455	06/14/2023 17:51	WG2073396
(T) Barium	81.9			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	102			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.54		0.394	0.497	06/16/2023 17:46	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.554		0.292	0.200	06/16/2023 17:46	WG2074499
(T) Barium-133	81.9			30.0-143	06/16/2023 17:46	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.939		0.476	0.846	06/14/2023 17:51	WG2073396
(T) Barium	79.0			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	105			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.34		0.545	0.884	06/16/2023 17:46	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.402		0.265	0.258	06/16/2023 17:46	WG2074499
(T) Barium-133	94.4			30.0-143	06/16/2023 17:46	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.282	J	0.315	0.572	06/14/2023 17:51	WG2073396
(T) Barium	69.5			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	110			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.320	J	0.332	0.606	06/16/2023 17:46	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0388	U	0.106	0.201	06/16/2023 17:46	WG2074499
(T) Barium-133	88.4			30.0-143	06/16/2023 17:46	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.367	U	0.271	0.509	06/14/2023 17:51	WG2073396
(T) Barium	86.6			30.0-143	06/14/2023 17:51	WG2073396
(T) Yttrium	104			30.0-136	06/14/2023 17:51	WG2073396

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.114	U	0.326	0.580	06/16/2023 17:46	WG2074499

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.114	J	0.182	0.278	06/16/2023 17:46	WG2074499
(T) Barium-133	90.5			30.0-143	06/16/2023 17:46	WG2074499

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3938842-1 06/14/23 17:51

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.488		0.154	0.268
(T) Barium	88.7		88.7	
(T) Yttrium	104		104	

L1619139-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1619139-09 06/14/23 17:51 • (DUP) R3938842-5 06/14/23 17:51

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.206	0.361	0.661	0.734	0.414	0.661	1	112	0.960	↓	20	3
(T) Barium	91.1			80.7	80.7							
(T) Yttrium	103			97.4	97.4							

Laboratory Control Sample (LCS)

(LCS) R3938842-2 06/14/23 17:51

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.68	93.5	80.0-120	
(T) Barium			99.0		
(T) Yttrium			90.4		

L1619136-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1619136-03 06/14/23 17:51 • (MS) R3938842-3 06/14/23 17:51 • (MSD) R3938842-4 06/14/23 17:51

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.939	15.8	18.5	89.1	105	1	70.0-130			15.3		20
(T) Barium		79.0			81.7	85.2							
(T) Yttrium		105			108	95.2							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R3937863-1 06/14/23 16:23

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.0613	↓	0.0908	0.136
(T) Barium-133	47.6		47.6	

L1617727-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617727-01 06/14/23 16:23 • (DUP) R3937863-5 06/14/23 16:23

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.742	0.400	0.359	0.496	0.326	0.359	1	39.8	0.477		20	3
(T) Barium-133	76.2			83.9	83.9							

Laboratory Control Sample (LCS)

(LCS) R3937863-2 06/14/23 16:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.91	118	80.0-120	
(T) Barium-133			61.3		

L1617729-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617729-03 06/14/23 16:23 • (MS) R3937863-3 06/14/23 16:23 • (MSD) R3937863-4 06/14/23 16:23

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0663	22.3	22.1	111	110	1	75.0-125			0.946		20
(T) Barium-133		90.1			79.0	69.9							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3938909-1 06/16/23 17:46

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.00379	U	0.0352	0.0716
(T) Barium-133	90.6		90.6	

L1619139-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1619139-04 06/16/23 17:47 • (DUP) R3938909-5 06/16/23 17:46

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0414	0.140	0.273	0.175	0.247	0.273	1	124	0.471	J	20	3
(T) Barium-133	91.3			84.9	84.9							

Laboratory Control Sample (LCS)

(LCS) R3938909-2 06/16/23 17:46

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.35	107	80.0-120	
(T) Barium-133			87.7		

L1614550-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614550-02 06/16/23 17:46 • (MS) R3938909-3 06/16/23 17:46 • (MSD) R3938909-4 06/16/23 17:46

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.475	21.6	22.2	105	109	1	75.0-125			3.11		20
(T) Barium-133		91.2			88.6	87.5							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

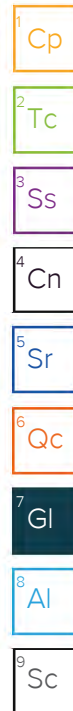
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

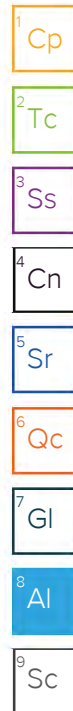
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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



Internal Transfer Chain of Custody

State of Origin: IL

Cert. Needed: ☒ YES ☐ NO

 Pace Analytical
www.pacelabs.com

Owner Received

Results Required

GE03619

Workorder Name: VISTRA - DUCK CREEK

Date: 5/17/2023

By: 6/1/2023

Report To:	Subcontract To:	Requested Analysis
Gail Schindler	Pace Analytical - Mt Juliet	226 228
Pace Analytical - IL/MO	12065 Lebanon Rd	
2231 W. Altorfer Drive	Mt Juliet TN 37122	
Peoria, IL 61615		
800-752-6651		

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				Radium 226	Radium 228	LAB USE ONLY									
						HNO3															
1	OM07	GRAB	5/17/2023 12:13	GE03619-01	GW	X				X	X										01
2	OM22D	GRAB	5/17/2023 16:55	GE03619-02	GW	X				X	X										02
3	OR06A	GRAB	5/17/2023 13:45	GE03619-03	GW	X				X	X										03
4	OR13S	GRAB	5/17/2023 15:20	GE03619-04	GW	X				X	X										04
5	EQUIPMENT BLANK 12	GRAB	5/17/2023 17:08	GE03619-05	DI	X				X	X										05
6																					
7																					
8																					
9																					

Transfers	Date/Time	Received By	Date/Time	Comments
1	5/14/2023 14:31			
2	5/22/23 08:00			
3			5/23/23 09:00	Needs 226, 228 and combined Include QC summary and add 10 day TAT

Cooler Temperature on Receipt	°C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
-------------------------------	----	---------------------	------------------------	----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev

Sample Receipt Checklist

COC Seal Present/Intact:	☒ Y ☐ N	If Applicable
COC Signed/Accurate:	☒ Y ☐ N	VOA Zero Headspace: ☒ Y ☐ N
Bottles arrive intact:	☒ Y ☐ N	Pres. Correct/Check: ☒ Y ☐ N
Correct bottles used:	☒ Y ☐ N	
Sufficient volume sent:	☒ Y ☐ N	
RAD Screen <0.5 mR/hr:	☒ Y ☐ N	

6319 59996575 - 20.2 to = 20.2 NSM

0514 - 18.9 to = 18.9 NSM

 Cont
 S-Other



Ship to :
 Pace Analytical Services, LLC
 12065 Lebanon Rd
 Mt Juliet TN 37122
 (615)758-5858

INTER_LABORATORY WORK ORDER # GE03619

(To be complete by sending lab)

Sending Project No: GE03619		###
Receiving Project No:		
Check Box for Consolidated Invoice:		
Date Prepared:		5/19/2023
REQUESTED COMPLETION DATE:		6/1/2023

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

All questions should be addressed to sending project manager.

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

WORK REQUESTED						
Method Description	Container Type	Quantity of	Preservative	Quantity of	Unit Price	Amount
Radium 226		5		5	\$121.05	\$605.25
Radium 228		5		5	\$121.05	\$605.25
		1		1		\$0.00
					TOTAL	\$1,210.50

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

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	\$1,210.50	\$968.40	\$242.10
* Custom Revenue Allocation		TOTAL	\$968.40	\$242.10

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

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

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

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GE03619

SENDING LABORATORY

PDC Laboratories, Inc.
 2231 W Altorfer Dr
 Peoria, IL 61615
 (800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
 12065 Lebanon Rd
 Mt Juliet, TN 37122
 (615) 758-5858

Sample: GE03619-01
Name: OM07

Sampled: 05/17/23 12:13
Matrix: Ground Water
Preservative: HNO₃, pH <2

Analysis	Due	Expires	Comments
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01-Radium 226/228 combined	06/01/23 16:00	11/13/23 12:13	
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Sample: GE03619-02
Name: OM22D

Sampled: 05/17/23 16:55
Matrix: Ground Water
Preservative: HNO₃, pH <2

Analysis	Due	Expires	Comments
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01-Radium 226/228 combined	06/01/23 16:00	11/13/23 16:55	
----------------------------	----------------	----------------	--

Sample: GE03619-03
Name: OR06A

Sampled: 05/17/23 13:45
Matrix: Ground Water
Preservative: HNO₃, pH <2

Analysis	Due	Expires	Comments
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01-Radium 226/228 combined	06/01/23 16:00	11/13/23 13:45	
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Sample: GE03619-04
Name: OR13S

Sampled: 05/17/23 15:20
Matrix: Ground Water
Preservative: HNO₃, pH <2

Analysis	Due	Expires	Comments
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01-Radium 226/228 combined	06/01/23 16:00	11/13/23 15:20	
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Sample: GE03619-05
Name: EB 12

Sampled: 05/17/23 17:08
Matrix: Ground Water
Preservative: HNO₃, pH <2

Analysis	Due	Expires	Comments
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01-Radium 226/228 combined	06/01/23 16:00	11/13/23 17:08	
----------------------------	----------------	----------------	--

SUBCONTRACT ORDER
Transfer Chain of Custody**Pace Analytical Services, LLC****GE03619**Please email results to Gail Schindler at gail.schindler@pacelabs.comDate Shipped: 5/20/23 Total # of Containers: 5 Sample Origin (State): IL PO #: _____Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

 Relinquished By	Date/Time	Received By	Date/Time	Sample Temperature Upon Receipt	_____ °C
	<u>5/20/23 0550</u>			Sample(s) Received on Ice	Y or N
				Proper Bottles Received in Good Condition	Y or N
				Bottles Filled with Adequate Volume	Y or N
				Samples Received Within Hold Time	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or N

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 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. 800th 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 #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location

STATE: IL

Requested Analysis Filtered (Y/N)

Section D Residual Client Information	Valid Matrix Codes MATRIX CODE DW WW PW P SL OL WP AR OT TS	SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see wild codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Y/N	Analysis Test ↑	DC_267_203	DC_257_204	DC_267_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.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other																
1			DC_BA01																													
2			DC_BA02																													
3			DC_BA02IL			5/10/23	1415		11																							
4			DC_BA03 +Dup				1300		22																							
5			DC_BA03IL				1415		11																							
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																													
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		Joseph R. Rad	1700	5/10/23	Vander Wegue	5/10/23	1720	9.3	Y N Y
		SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YYYY)		RECEIVED ON		TEMP IN °C	
		Joseph R. Rad		5/10/23		5/10/23		9.3	
		PRINT Name of SAMPLER:		DATE SIGNED (MM/DD/YYYY):		RECEIVED ON		TEMP IN °C	
		Joseph R. Rad		5/10/23		5/10/23		9.3	
		SIGNATURE of SAMPLER:		DATE SIGNED (MM/DD/YYYY):		RECEIVED ON		TEMP IN °C	
		Joseph R. Rad		5/10/23		5/10/23		9.3	

CHAIN-OF-CUSTODY / Analytical Request Document

Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey	
Address: 13488 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:		Quota Reference:	
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:	
				Profile #:	

ITEM #	Valid Matrix Codes MATRIX CODE OPENING WATER WATER WASTE WATER PRODUCT SOLVENT SLURRY WASTE AIR OTHER TANK	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-CRAB C-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↑	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
				DATE	TIME			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈	Methanol	Other										
1		DC_0MD4HS																						
2		DC_0MD5HS																						
3		DC_0M07																						
4		DC_0M08																						
5		DC_0M09																						
6		DC_0M10																						
7		DC_0M12																						
8		DC_0M15																						
9		DC_0M16		5/10/23	1350		10																	
10		DC_0M17		5/10/23	1214		10																	
11		DC_0M21																						
12		DC_0M22HS																						
13		DC_0M22&D																						
14		DC_0M23HS																						
15		DC_0M23&D																						
16		DC_0M24&D																						

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YYYY)	
PRINT Name of SAMPLER		DATE SIGNED (MM/DD/YYYY)	
SIGNATURE of SAMPLER		DATE SIGNED (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:
 Company: **Vistra Corp**

Section B
 Required Project Information:
 Report To: **Brian Voelker**

Section C
 Invalid Information:
 Attention: **Jason Stuckey**

Page: **6** of **9**

REGULATORY PROGRAM (CIRCLE):	NPDES
MORBCA	RCRA
CCDD	TACO: RES or IND/COMM

CHAIN OF CUSTODY RECORD

SAMPLE COLLECTED IN THE STATE OF IL

ALL HIGHLIGHTED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

[illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

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

GE02632
Inv 5-12-23
GE02656

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 **9**

Section D Required Client Information		Valid Matrix Codes MATRIX CODE		COLLECTED		PRESERVATIVES		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)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test	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	DC_BA01	WT	G	5/11/23	1333		11	X	X	X																		
2	DC_BA02																											
3	DC_BA02IL																											
4	DC_BA03																											
5	DC_BA03IL																											
6	DC_BA04	WT	G	5/11/23	1146		11	X	X	X																		
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																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-23Q2-Rev 0	<i>[Signature]</i>	5/11/23	1720	<i>[Signature]</i>	5/11/23	1720	5 / 1 / 1

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	<i>[Signature]</i>				
SIGNATURE of SAMPLER:	<i>[Signature]</i>	DATE Signed (MM/DD/YY):	05/11/23		

CHAIN-OF-CUSTODY / Analytical Request Document

Page 187 of 206

Page 188 of 206

Phone: (217) 753-8911		Fax:		Project Name:		Project Manager:		Site Location:		IL																											
Requested Due Date/TAT: 10 day				Project Number: 2285				STATE:																													
Section D Required Client Information		Valid Matrix Codes		MATRIX CODE (see yield codes to left)		SAMPLE TYPE (G=GRAB C=COMP)		COLLECTED		DATE		TIME		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C		Received on		Custody		Sealed Cooler		Samples	
SAMPLE ID (A-Z, 0-9 / -)		MATRIX CODE		MATRIX CODE		SAMPLE TYPE		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		Temp in °C									

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
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 #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location
STATE: **IL**

6502775

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DW WT WASTE WATER PRODUCT SOLID OIL WFE WPC OTHER TSS	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 ₈ Methanol Other	Y/N	Requested Analysis Filtered (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	Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
							Temp in °C	Received on	Custody	Sealed Cooler
DC-23Q2-Rev 0	Joseph R Reed	5/12/23	1431	Joseph R Reed	5/12/23	1431	20	5/12/23	5/12/23	5/12/23

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YYYY):
5/12/23

CHAIN-OF-CUSTODY / Analytical Request Document

Section A
Required Client Information:

Company: **Visira Corp**
 Address: **13496 E. 900th St**
 Email To: **Brian.Voelker@VisiraCorp.com**
 Phone: **(217) 753-8911**
 Requested Due Date/TAT: **10 day**

Section B
Report To: **Jason 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: **680275**

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DOMESTIC WATER DW WATER WT WASTEWATER WW INDUSTRIAL P SOLID I OIL OL WIPE WP AIR AR OTHER OT TISSE TIS	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					Analysis Test	DC_257_203	DC_257_204	DC_257_206	DC_811_204	DC_846_201-202	DC_846_203	DC_846_206	DC_CLOSURE_201-202	DC_SUP_000	DC_WPCP_203-206	Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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ADDITIONAL COMMENTS
DC-23Q2-Rev 0

RELINQUISHED BY / AFFILIATION: **Jason R. Voelker** DATE: **5/12/23** TIME: **12:20**

ACCEPTED BY / AFFILIATION: **Jason R. Voelker** DATE: **5/12/23** TIME: **14:31**

SAMPLER NAME AND SIGNATURE: **Jason R. Voelker**

PRINT Name of SAMPLER: **Jason R. Voelker**

SIGNATURE OF SAMPLER: **Jason R. Voelker**

DATE Signed (MM/DD/YY): **5/12/23**

Temp in °C: **22**

Received on Ice (Y/N): **Y**

Custody Sealed Cooler (Y/N): **Y**

Samples Intact (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:		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:		Quota Reference:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Project Manager:	
				Profile #:	

Section D Required Client Information		Valid Matrix Codes		Matrix Code		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	(see valid codes to left)	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
1	08-53123	DC_G54#S	FFBUP	DC_G551L		5/12/23	1304	24													
2		DC_G55#S																			
3		DC_G561L																			
4		DC_G56#S																			
5		DC_G571L																			
6		DC_G57#S																			
7		DC_G581L																			
8		DC_G58#S																			
9		DC_G591L																			
10		DC_G59#S																			
11		DC_G601L				5/12/23	1048	10													
12		DC_G60#S				5/12/23	1100	12													
13		DC_G61#S																			
14		DC_G621L																			
15		DC_G62#S																			
16		DC_G631L																			

Section E 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		Joseph R. Reed		5/12/23		14:31		Temp in °C: 20 Received on (Y/N): 5 Sealed Cooler (Y/N): 2 Samples Intact (Y/N): 4	

Section F Chain-of-Custody / Analytical Request Document		The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.	
SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY): 5/12/23	
PRINT Name of SAMPLER: Joseph R. Reed			
SIGNATURE of SAMPLER: [Signature]			

Phone: (217) 753-8911 Fax:		Project Name:		Site Location		IL	
Requested Due Date/TAT: 10 day		Project Number: 2285		STATE:			
Section D Required Client Information		Valid Matrix Codes		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
MATRIX: DW WT VW P SL OL WP AR OT TS GROUNDWATER WASTE WATER PRODUCT SOIL/SLURRY AIR OTHER TISSUE SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE		MATRIX CODE (see field codes to left) SAMPLE TYPE (G=GRAV 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 ↑ V/N		DC_T441L DC_T451L DC_T461L DC_X301_Leachate EB-6 EB-7		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)	
ITEM #							
1							
2							
3							
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7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME	
DC-23Q2-Rev 0		Joseph R. Reed		5/12/23		14:31	
		SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)		SAMPLE CONDITIONS	
		Joseph R. Reed		5/12/23		Received on (Y/N) 4 Sealed Cooler (Y/N) 2 Samples Intact (Y/N) 4	

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Required Client Information:

Required Project Information:**Invoice Information:**

REGULATORY AGENCY

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

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TB	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test	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_OM25#S																														
2	DC_OM25&D																														
3	DC_OR02																														
4	DC_OR03#S																														
5	DC_OR03&D																														
6	DC_OR04&D																														
7	DC_OR05&D																														
8	DC_OR06!A																														
9	DC_OR11				5/13/23	1233		11																							
10	DC_OR13#S																														
11	DC_OR13&D																														
12	DC_OR14#S																														
13	DC_OR14&D				5/15/23	1135		11																							
14	DC_OR18																														
15	DC_OR19				5/15/23	1528		11																							
16	DC_OR20				5/15/23	1110		11																							
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS																	
DC-23Q2-Rev 0		Joe Reed		5/15/23		1800		Van Wagon		5-16-23		650		0.3		Y		N		Y											
SAMPLER NAME AND SIGNATURE																Temp in °C		Received on lot (Y/N)		Customary Sealed Cooler (Y/N)		Samples intact (Y/N)									
PRINT Name of SAMPLER: Joe Reed																															
SIGNATURE of SAMPLER: Joe Reed																DATE Signed (MM/DD/YY): 5/15/23															

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: 7 of 9	
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			

CHAIN-OF-CUSTODY / Analytical Request Document

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

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp	Report To:	Jason Stuckey	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 D Required Client Information		Valid Matrix Codes		Matrix Code (see field codes to left)		Sample Type (G-GRAB C-COMP)		Collected		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	Matrix Code	Sample Type	Collected	Sample Temp	# of Containers	Preservatives	Analysis Test	Requested Analysis Filtered	Project No./ Lab I.D.									
1	DC_OM04#S	WATER	WV	WV	WV	12:15	10	XX	NaOH	DC_257_203	Y										
2	DC_OM05#S	WATER	WV	WV	WV				NaOH	DC_257_204	Y										
3	DC_OM07	WATER	WV	WV	WV				NaOH	DC_257_205	Y										
4	DC_OM08	WATER	WV	WV	WV				NaOH	DC_257_206	Y										
5	DC_OM09	WATER	WV	WV	WV				NaOH	DC_257_207	Y										
6	DC_OM10	WATER	WV	WV	WV				NaOH	DC_257_208	Y										
7	DC_OM12	WATER	WV	WV	WV				NaOH	DC_257_209	Y										
8	DC_OM15	WATER	WV	WV	WV				NaOH	DC_257_210	Y										
9	DC_OM16	WATER	WV	WV	WV				NaOH	DC_257_211	Y										
10	DC_OM17	WATER	WV	WV	WV				NaOH	DC_257_212	Y										
11	DC_OM21	WATER	WV	WV	WV				NaOH	DC_257_213	Y										
12	DC_OM22#S	WATER	WV	WV	WV				NaOH	DC_257_214	Y										
13	DC_OM22&D	WATER	WV	WV	WV				NaOH	DC_257_215	Y										
14	DC_OM23#S	WATER	WV	WV	WV				NaOH	DC_257_216	Y										
15	DC_OM23&D	WATER	WV	WV	WV				NaOH	DC_257_217	Y										
16	DC_OM24&D	WATER	WV	WV	WV				NaOH	DC_257_218	Y										

SAMPLER NAME AND SIGNATURE		DATE SIGNED		MINUTES	
PRINT NAME OF SAMPLER:		DATE SIGNED		MINUTES	
SIGNATURE OF SAMPLER:		DATE SIGNED		MINUTES	

CHAIN-OF-CUSTODY / Analytical Request Document

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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:		Guide Reference:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Project Manager:	
				Profile #:	

Section D Required Client Information		Valid Matrix Codes		Matrix Code (see valid codes to left)		Sample Type (G-GRAB C-COMP)		Collected		Sample Temp at Collection		Preservatives		Analysis Test ↑		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	Sample ID (A-Z, 0-9 / -)	Matrix	Code	Matrix Code	Sample Type	Date	Time	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
1	DC_OR02	DC_OR02	DC_OR02	DC_OR02	DC_OR02	5/16/23	12:14												
2	DC_OR03#S	DC_OR03#S	DC_OR03#S	DC_OR03#S	DC_OR03#S	5/16/23	13:36												
3	DC_OR04#D	DC_OR04#D	DC_OR04#D	DC_OR04#D	DC_OR04#D	5/16/23	10:55												
4	DC_OR05#D	DC_OR05#D	DC_OR05#D	DC_OR05#D	DC_OR05#D														
5	DC_OR06#A	DC_OR06#A	DC_OR06#A	DC_OR06#A	DC_OR06#A														
6	DC_OR11	DC_OR11	DC_OR11	DC_OR11	DC_OR11														
7	DC_OR13#S	DC_OR13#S	DC_OR13#S	DC_OR13#S	DC_OR13#S														
8	DC_OR13#D	DC_OR13#D	DC_OR13#D	DC_OR13#D	DC_OR13#D														
9	DC_OR14#S	DC_OR14#S	DC_OR14#S	DC_OR14#S	DC_OR14#S														
10	DC_OR14#D	DC_OR14#D	DC_OR14#D	DC_OR14#D	DC_OR14#D														
11	DC_OR16	DC_OR16	DC_OR16	DC_OR16	DC_OR16														
12	DC_OR18	DC_OR18	DC_OR18	DC_OR18	DC_OR18														
13	DC_OR19	DC_OR19	DC_OR19	DC_OR19	DC_OR19														
14	DC_OR20	DC_OR20	DC_OR20	DC_OR20	DC_OR20														
15																			
16																			

CHAIN-OF-CUSTODY / Analytical Request Document

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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:		Quota Reference:	
Requested Due Date/AT:	10 day	Project Number:	2286	Project Manager:	
REGULATORY AGENCY		NPDES		GROUND WATER	DRINKING WATER
		UST		RCRA	OTHER
Site Location		STATE:		IL	
Project No./ Lab I.D.		6E03280			

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 ↑ Y/N ↓	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
1	DC T44IL																					
2	DC T45IL																					
3	DC T46IL																					
4	DC X301 leachate	RS	WTG 5/16/23	1539					1 X													
5	Equipment Blank 7 AS		WTG 5/16/23	1545					1 X													
6	Equipment Blank 10		WTG 5/16/23	1741					10 X X X													
7	Equipment Blank 11		WTG 5/16/23	1726					12 X X X													
8	BA03 + ED01QS 052023		WTG 5/16/23	1423					2 X													
9	BA03L RS		WTG 5/16/23	1446					1 X													
10																						
11																						
12																						
13																						
14																						
15																						
16																						

SAMPLER NAME AND SIGNATURE		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
<i>[Signature]</i>		5/16/23		1747		<i>[Signature]</i>		5/16/23		17:47:5.5		Y N Y	
PRINT Name of SAMPLER:		DATE Signed		(MM/DD/YY)									
SIGNATURE of SAMPLER:													

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:
Valid Matrix Codes		REGULATORY AGENCY
MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOUSOLID S WIRE WIRE AIR AIR OTHER OTHER TISSUE TISSUE		GROUND WATER DRINKING WATER
SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		NPDES RCRA OTHER
Requested Analysis Filtered (Y/N)		Site Location STATE: IL

Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOLID S OIL OL WIPE WP WAX WX OTHER OT TSS TS	COLLECTED		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE		TIME	Preservatives										Analysis Test ↑ Y/N ↑	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
<i>[Signature]</i>	5/17/23	18:14	<i>[Signature]</i>	5-17-23	18:14

SAMPLER NAME AND SIGNATURE	
PRINT NAME OF SAMPLER:	<i>[Signature]</i>
SIGNATURE OF SAMPLER:	<i>[Signature]</i>

Temp in °C	Received on	Custody	Sealed Cooler	Samples
14.4	Y	N	Y	Y

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Vistra Corp	Report To: Brian Voelker	Attention: Jason Stuckey

[illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 7 of 9
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		



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

October 24, 2023

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

RE: DC 23Q3

Dear Daryl Johnson:

Please find enclosed the analytical results for the **100** sample(s) the laboratory received on **7/19/23 5:12 pm** and logged in under work order **GG03353**. 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, 

Diane Billings
Project Manager

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order GG03353

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 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 GG04129

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 GG04630

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 GG04652

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



Work Order 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



Work Order GG05277

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 GH02459

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



ANALYTICAL RESULTS

Sample: GG03353-04
Name: OM21
Matrix: Ground Water - Grab

Sampled: 07/19/23 15:05
Received: 07/19/23 17:12

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	270	mg/L	Q4	07/20/23 17:26	250	250	07/20/23 17:26	CRD	EPA 300.0 REV 2.1
Sulfate	1200	mg/L	Q4	07/20/23 17:26	250	250	07/20/23 17:26	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.8	Feet		07/19/23 15:05	1		07/19/23 15:05	FIELD	Field*
Dissolved oxygen, Field	2.7	mg/L		07/19/23 15:05	1		07/19/23 15:05	FIELD	Field*
Oxidation Reduction Potential	-47.6	mV		07/19/23 15:05	1	-500	07/19/23 15:05	FIELD	Field*
pH, Field Measured	6.47	pH Units		07/19/23 15:05	1		07/19/23 15:05	FIELD	Field*
Specific Conductance, Field Measured	3344	umhos/cm		07/19/23 15:05	1		07/19/23 15:05	FIELD	Field*
Temperature, Field Measured	18.8	°C		07/19/23 15:05	1		07/19/23 15:05	FIELD	Field*
Temperature, Field Measured	65.8	°F		07/19/23 15:05	1		07/19/23 15:05	FIELD	Field*
Turbidity, Field Measured	1890	NTU		07/19/23 15:05	1	0.00	07/19/23 15:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	620	mg/L		07/31/23 09:55	1	10	07/31/23 09:55	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		07/31/23 09:55	1	10	07/31/23 09:55	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		07/26/23 15:02	1	0.250	07/26/23 15:02	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2700	mg/L		07/24/23 10:28	1	26	07/24/23 12:06	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/20/23 09:16	5	3.0	08/01/23 14:31	wjm	EPA 6020A
Arsenic	3.6	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:31	wjm	EPA 6020A
Barium	62	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:31	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		07/20/23 09:16	5	1.0	07/28/23 09:31	TJJ	EPA 6020A
Boron	9800	ug/L		07/20/23 09:16	5	10	07/28/23 09:31	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:31	wjm	EPA 6020A
Calcium	300	mg/L		07/20/23 09:16	5	0.20	08/01/23 14:31	wjm	EPA 6020A
Chromium	17	ug/L		07/20/23 09:16	5	4.0	08/01/23 14:31	wjm	EPA 6020A
Cobalt	6.6	ug/L		07/20/23 09:16	5	2.0	08/01/23 14:31	wjm	EPA 6020A
Lead	6.9	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:31	wjm	EPA 6020A
Magnesium	170	mg/L		07/20/23 09:16	50	1.0	08/07/23 19:11	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03353-04
Name: OM21
Matrix: Ground Water - Grab

Sampled: 07/19/23 15:05

Received: 07/19/23 17:12

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	< 0.20	ug/L		07/20/23 09:16	5	0.20	08/01/23 14:31	wjm	EPA 6020A
Molybdenum	3.3	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:31	wjm	EPA 6020A
Potassium	11	mg/L		07/20/23 09:16	5	0.10	08/01/23 14:31	wjm	EPA 6020A
Selenium	< 1.0	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:31	wjm	EPA 6020A
Sodium	280	mg/L		07/20/23 09:16	5	0.10	08/01/23 14:31	wjm	EPA 6020A
Thallium	< 1.0	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:31	wjm	EPA 6020A
Lithium	0.045	mg/L		07/20/23 09:16	1	0.020	07/26/23 10:23	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG03353-05
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 07/19/23 12:42

Received: 07/19/23 17:12

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	940	mg/L		07/20/23 20:20	100	100	07/20/23 20:20	CRD	EPA 300.0 REV 2.1
Sulfate	800	mg/L		07/20/23 20:20	100	100	07/20/23 20:20	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	18.85	Feet		07/19/23 12:42	1		07/19/23 12:42	FIELD	Field*
Dissolved oxygen, Field	2.6	mg/L		07/19/23 12:42	1		07/19/23 12:42	FIELD	Field*
Oxidation Reduction Potential	2.20	mV		07/19/23 12:42	1	-500	07/19/23 12:42	FIELD	Field*
pH, Field Measured	6.68	pH Units		07/19/23 12:42	1		07/19/23 12:42	FIELD	Field*
Specific Conductance, Field Measured	3907	umhos/cm		07/19/23 12:42	1		07/19/23 12:42	FIELD	Field*
Temperature, Field Measured	18.7	°C		07/19/23 12:42	1		07/19/23 12:42	FIELD	Field*
Temperature, Field Measured	65.6	°F		07/19/23 12:42	1		07/19/23 12:42	FIELD	Field*
Turbidity, Field Measured	6540	NTU		07/19/23 12:42	1	0.00	07/19/23 12:42	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	340	mg/L		07/31/23 09:55	1	10	07/31/23 09:55	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		07/31/23 09:55	1	10	07/31/23 09:55	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		07/26/23 15:05	1	0.250	07/26/23 15:05	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4300	mg/L		07/24/23 10:28	1	26	07/24/23 12:06	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/20/23 09:16	5	3.0	08/01/23 14:35	wjm	EPA 6020A
Arsenic	12	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:35	wjm	EPA 6020A
Barium	280	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:35	wjm	EPA 6020A
Beryllium	1.7	ug/L		07/20/23 09:16	5	1.0	07/28/23 09:34	TJJ	EPA 6020A
Boron	52000	ug/L		07/20/23 09:16	100	200	07/28/23 11:33	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:35	wjm	EPA 6020A
Calcium	490	mg/L		07/20/23 09:16	5	0.20	08/01/23 14:35	wjm	EPA 6020A
Chromium	47	ug/L		07/20/23 09:16	5	4.0	08/01/23 14:35	wjm	EPA 6020A
Cobalt	27	ug/L		07/20/23 09:16	5	2.0	08/01/23 14:35	wjm	EPA 6020A
Lead	16	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:35	wjm	EPA 6020A
Magnesium	180	mg/L		07/20/23 09:16	50	1.0	08/07/23 19:15	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03353-05
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 07/19/23 12:42

Received: 07/19/23 17:12

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	< 0.20	ug/L		07/20/23 09:16	5	0.20	08/01/23 14:35	wjm	EPA 6020A
Molybdenum	93	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:35	wjm	EPA 6020A
Potassium	12	mg/L		07/20/23 09:16	5	0.10	08/01/23 14:35	wjm	EPA 6020A
Selenium	1.2	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:35	wjm	EPA 6020A
Sodium	150	mg/L		07/20/23 09:16	5	0.10	08/01/23 14:35	wjm	EPA 6020A
Thallium	< 1.0	ug/L		07/20/23 09:16	5	1.0	08/01/23 14:35	wjm	EPA 6020A
Lithium	0.080	mg/L		07/20/23 09:16	1	0.020	07/26/23 10:25	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG03704-04
Name: OM01
Matrix: Ground Water - Grab

Sampled: 07/20/23 12:35

Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	36	mg/L		07/21/23 21:18	5	5.0	07/21/23 21:18	TMS	EPA 300.0 REV 2.1
Sulfate	2000	mg/L		07/21/23 21:37	250	250	07/21/23 21:37	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.08	Feet		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Dissolved oxygen, Field	1.4	mg/L		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Oxidation Reduction Potential	7.40	mV		07/20/23 12:35	1	-500	07/20/23 12:35	JD	Field*
pH, Field Measured	6.35	pH Units		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Specific Conductance, Field Measured	3520	umhos/cm		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Temperature, Field Measured	20.1	°C		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Temperature, Field Measured	68.1	°F		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Turbidity, Field Measured	89.6	NTU		07/20/23 12:35	1	0.00	07/20/23 12:35	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	540	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*
Fluoride	< 0.250	mg/L		07/26/23 15:06	1	0.250	07/26/23 15:06	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3700	mg/L		07/27/23 11:41	1	26	07/27/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/24/23 09:36	5	3.0	08/01/23 16:46	wjm	EPA 6020A
Arsenic	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:46	wjm	EPA 6020A
Barium	19	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:46	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		07/24/23 09:36	5	1.0	07/28/23 11:51	TJJ	EPA 6020A
Boron	210	ug/L		07/24/23 09:36	5	10	07/28/23 11:51	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:46	wjm	EPA 6020A
Calcium	530	mg/L		07/24/23 09:36	20	0.80	08/03/23 15:54	wjm	EPA 6020A
Chromium	< 4.0	ug/L		07/24/23 09:36	5	4.0	08/01/23 16:46	wjm	EPA 6020A
Cobalt	18	ug/L		07/24/23 09:36	5	2.0	08/01/23 16:46	wjm	EPA 6020A
Lead	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:46	wjm	EPA 6020A
Magnesium	250	mg/L		07/24/23 09:36	5	0.10	08/03/23 15:04	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03704-04
Name: OM01
Matrix: Ground Water - Grab

Sampled: 07/20/23 12:35

Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	< 0.20	ug/L		07/24/23 09:36	5	0.20	08/01/23 16:46	wjm	EPA 6020A
Molybdenum	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:46	wjm	EPA 6020A
Potassium	0.87	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:46	wjm	EPA 6020A
Selenium	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:46	wjm	EPA 6020A
Sodium	28	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:46	wjm	EPA 6020A
Thallium	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:46	wjm	EPA 6020A
Lithium	< 0.020	mg/L		07/24/23 09:36	1	0.020	07/26/23 10:10	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG03704-05

Name: OM01 DUP

Matrix: Ground Water - Field Duplicate

Sampled: 07/20/23 12:35

Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	36	mg/L		07/21/23 21:57	5	5.0	07/21/23 21:57	TMS	EPA 300.0 REV 2.1
Sulfate	2100	mg/L		07/21/23 22:16	250	250	07/21/23 22:16	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.08	Feet		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Dissolved oxygen, Field	1.4	mg/L		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Oxidation Reduction Potential	7.40	mV		07/20/23 12:35	1	-500	07/20/23 12:35	JD	Field*
pH, Field Measured	6.35	pH Units		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Specific Conductance, Field Measured	3520	umhos/cm		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Temperature, Field Measured	20.1	°C		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Temperature, Field Measured	68.1	°F		07/20/23 12:35	1		07/20/23 12:35	JD	Field*
Turbidity, Field Measured	89.6	NTU		07/20/23 12:35	1	0.00	07/20/23 12:35	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	520	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*
Fluoride	< 0.250	mg/L		07/26/23 15:07	1	0.250	07/26/23 15:07	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3800	mg/L		07/27/23 11:41	1	26	07/27/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/24/23 09:36	5	3.0	08/01/23 16:58	wjm	EPA 6020A
Arsenic	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:58	wjm	EPA 6020A
Barium	20	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:58	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		07/24/23 09:36	5	1.0	07/28/23 12:18	TJJ	EPA 6020A
Boron	210	ug/L		07/24/23 09:36	5	10	07/28/23 12:18	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:58	wjm	EPA 6020A
Calcium	600	mg/L		07/24/23 09:36	100	4.0	08/08/23 12:38	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/24/23 09:36	5	4.0	08/01/23 16:58	wjm	EPA 6020A
Cobalt	19	ug/L		07/24/23 09:36	5	2.0	08/01/23 16:58	wjm	EPA 6020A
Lead	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:58	wjm	EPA 6020A
Magnesium	230	mg/L		07/24/23 09:36	5	0.10	08/03/23 15:31	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03704-05**Name:** OM01 DUP**Matrix:** Ground Water - Field Duplicate**Sampled:** 07/20/23 12:35**Received:** 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	< 0.20	ug/L		07/24/23 09:36	5	0.20	08/01/23 16:58	wjm	EPA 6020A
Molybdenum	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:58	wjm	EPA 6020A
Potassium	0.89	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:58	wjm	EPA 6020A
Selenium	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:58	wjm	EPA 6020A
Sodium	29	mg/L		07/24/23 09:36	5	0.10	08/01/23 16:58	wjm	EPA 6020A
Thallium	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 16:58	wjm	EPA 6020A
Lithium	< 0.020	mg/L		07/24/23 09:36	1	0.020	07/26/23 10:11	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG03704-06
Name: OR02
Matrix: Ground Water - Grab

Sampled: 07/20/23 14:00

Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	230	mg/L		07/21/23 23:53	50	50	07/21/23 23:53	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/21/23 23:34	1	0.250	07/21/23 23:34	TMS	EPA 300.0 REV 2.1
Sulfate	270	mg/L		07/21/23 23:53	50	50	07/21/23 23:53	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	6.19	Feet		07/20/23 14:00	1		07/20/23 14:00	JD	Field*
Dissolved oxygen, Field	1.3	mg/L		07/20/23 14:00	1		07/20/23 14:00	JD	Field*
Oxidation Reduction Potential	-34.2	mV		07/20/23 14:00	1	-500	07/20/23 14:00	JD	Field*
pH, Field Measured	6.62	pH Units		07/20/23 14:00	1		07/20/23 14:00	JD	Field*
Specific Conductance, Field Measured	1972	umhos/cm		07/20/23 14:00	1		07/20/23 14:00	JD	Field*
Temperature, Field Measured	21.8	°C		07/20/23 14:00	1		07/20/23 14:00	JD	Field*
Turbidity, Field Measured	4350	NTU		07/20/23 14:00	1	0.00	07/20/23 14:00	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	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)	1400	mg/L		07/27/23 11:41	1	26	07/27/23 13:34	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/24/23 09:36	5	3.0	08/01/23 17:02	wjm	EPA 6020A
Arsenic	23	ug/L		07/24/23 09:36	5	1.0	08/01/23 17:02	wjm	EPA 6020A
Barium	90	ug/L		07/24/23 09:36	5	1.0	08/01/23 17:02	wjm	EPA 6020A
Beryllium	< 2.0	ug/L		07/24/23 09:36	10	2.0	07/28/23 12:20	TJJ	EPA 6020A
Boron	4900	ug/L		07/24/23 09:36	10	20	07/28/23 12:20	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 17:02	wjm	EPA 6020A
Calcium	110	mg/L		07/24/23 09:36	5	0.20	08/01/23 17:02	wjm	EPA 6020A
Chromium	16	ug/L		07/24/23 09:36	5	4.0	08/01/23 17:02	wjm	EPA 6020A
Cobalt	10	ug/L		07/24/23 09:36	5	2.0	08/01/23 17:02	wjm	EPA 6020A
Lead	18	ug/L		07/24/23 09:36	5	1.0	08/01/23 17:02	wjm	EPA 6020A
Magnesium	82	mg/L		07/24/23 09:36	5	0.10	08/03/23 15:34	wjm	EPA 6020A
Mercury	< 0.20	ug/L		07/24/23 09:36	5	0.20	08/01/23 17:02	wjm	EPA 6020A



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ANALYTICAL RESULTS

Sample: GG03704-06
Name: OR02
Matrix: Ground Water - Grab

Sampled: 07/20/23 14:00

Received: 07/20/23 17:22

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Molybdenum	5.7	ug/L		07/24/23 09:36	5	1.0	08/01/23 17:02	wjm	EPA 6020A
Potassium	2.0	mg/L		07/24/23 09:36	5	0.10	08/01/23 17:02	wjm	EPA 6020A
Selenium	1.5	ug/L		07/24/23 09:36	5	1.0	08/01/23 17:02	wjm	EPA 6020A
Sodium	50	mg/L		07/24/23 09:36	5	0.10	08/01/23 17:02	wjm	EPA 6020A
Thallium	< 1.0	ug/L		07/24/23 09:36	5	1.0	08/01/23 17:02	wjm	EPA 6020A
Lithium	< 0.020	mg/L		07/24/23 09:36	1	0.020	07/26/23 10:12	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04129-01
Name: OR20
Matrix: Ground Water - Grab

Sampled: 07/24/23 11:10

Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	330	mg/L	Q4	07/25/23 11:05	100	100	07/25/23 11:05	TMS	EPA 300.0 REV 2.1
Sulfate	390	mg/L	Q4	07/25/23 11:05	100	100	07/25/23 11:05	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.95	Feet		07/24/23 11:10	1		07/24/23 11:10	JD	Field*
Dissolved oxygen, Field	0.34	mg/L		07/24/23 11:10	1		07/24/23 11:10	JD	Field*
Oxidation Reduction Potential	-42.2	mV		07/24/23 11:10	1	-500	07/24/23 11:10	JD	Field*
pH, Field Measured	6.85	pH Units		07/24/23 11:10	1		07/24/23 11:10	JD	Field*
Specific Conductance, Field Measured	2509	umhos/cm		07/24/23 11:10	1		07/24/23 11:10	JD	Field*
Temperature, Field Measured	64.6	°F		07/24/23 11:10	1		07/24/23 11:10	JD	Field*
Temperature, Field Measured	18.1	°C		07/24/23 11:10	1		07/24/23 11:10	JD	Field*
Turbidity, Field Measured	4250	NTU		07/24/23 11:10	1	0.00	07/24/23 11:10	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	520	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*
Fluoride	0.511	mg/L		07/27/23 13:00	1	0.250	07/27/23 13:00	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1800	mg/L		07/28/23 10:45	1	26	07/28/23 14:16	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/26/23 08:54	5	3.0	08/01/23 11:54	wjm	EPA 6020A
Arsenic	8.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 11:54	wjm	EPA 6020A
Barium	31	ug/L		07/26/23 08:54	5	1.0	08/01/23 11:54	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		07/26/23 08:54	5	1.0	07/28/23 13:25	TJJ	EPA 6020A
Boron	23000	ug/L	Q4	07/26/23 08:54	100	200	07/28/23 15:32	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 11:54	wjm	EPA 6020A
Calcium	210	mg/L	Q4	07/26/23 08:54	5	0.20	08/01/23 11:54	wjm	EPA 6020A
Chromium	< 4.0	ug/L		07/26/23 08:54	5	4.0	08/01/23 11:54	wjm	EPA 6020A
Cobalt	< 2.0	ug/L		07/26/23 08:54	5	2.0	08/01/23 11:54	wjm	EPA 6020A
Lead	2.4	ug/L		07/26/23 08:54	5	1.0	08/01/23 11:54	wjm	EPA 6020A
Magnesium	99	mg/L	Q4	07/26/23 08:54	5	0.10	08/01/23 11:54	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04129-01

Name: OR20

Matrix: Ground Water - Grab

Sampled: 07/24/23 11:10

Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	< 0.20	ug/L		07/26/23 08:54	5	0.20	08/01/23 11:54	wjm	EPA 6020A
Molybdenum	33	ug/L		07/26/23 08:54	5	1.0	08/01/23 11:54	wjm	EPA 6020A
Potassium	7.7	mg/L		07/26/23 08:54	5	0.10	08/01/23 11:54	wjm	EPA 6020A
Selenium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 11:54	wjm	EPA 6020A
Sodium	170	mg/L	Q4	07/26/23 08:54	5	0.10	08/01/23 11:54	wjm	EPA 6020A
Thallium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 11:54	wjm	EPA 6020A
Lithium	0.035	mg/L		07/26/23 08:54	1	0.020	08/02/23 09:45	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04129-02
Name: OM16
Matrix: Ground Water - Grab

Sampled: 07/24/23 12:45

Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	10	mg/L		07/25/23 11:43	10	10	07/25/23 11:43	TMS	EPA 300.0 REV 2.1
Sulfate	2300	mg/L		07/25/23 12:03	500	500	07/25/23 12:03	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.5	Feet		07/24/23 12:45	1		07/24/23 12:45	JD	Field*
Dissolved oxygen, Field	0.45	mg/L		07/24/23 12:45	1		07/24/23 12:45	JD	Field*
Oxidation Reduction Potential	0.500	mV		07/24/23 12:45	1	-500	07/24/23 12:45	JD	Field*
pH, Field Measured	6.50	pH Units		07/24/23 12:45	1		07/24/23 12:45	JD	Field*
Specific Conductance, Field Measured	3986	umhos/cm		07/24/23 12:45	1		07/24/23 12:45	JD	Field*
Temperature, Field Measured	17.9	°C		07/24/23 12:45	1		07/24/23 12:45	JD	Field*
Temperature, Field Measured	64.2	°F		07/24/23 12:45	1		07/24/23 12:45	JD	Field*
Turbidity, Field Measured	1090	NTU		07/24/23 12:45	1	0.00	07/24/23 12:45	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	750	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*
Fluoride	< 0.250	mg/L		07/27/23 13:01	1	0.250	07/27/23 13:01	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4200	mg/L		07/28/23 10:45	1	26	07/28/23 14:16	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/26/23 08:54	5	3.0	08/01/23 13:44	wjm	EPA 6020A
Arsenic	1.4	ug/L		07/26/23 08:54	5	1.0	08/01/23 13:44	wjm	EPA 6020A
Barium	16	ug/L		07/26/23 08:54	5	1.0	08/01/23 13:44	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		07/26/23 08:54	5	1.0	07/28/23 13:34	TJJ	EPA 6020A
Boron	55	ug/L		07/26/23 08:54	5	10	07/28/23 15:26	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 13:44	wjm	EPA 6020A
Calcium	480	mg/L		07/26/23 08:54	5	0.20	08/01/23 13:44	wjm	EPA 6020A
Chromium	< 4.0	ug/L		07/26/23 08:54	5	4.0	08/01/23 13:44	wjm	EPA 6020A
Cobalt	2.7	ug/L		07/26/23 08:54	5	2.0	08/01/23 13:44	wjm	EPA 6020A
Lead	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 13:44	wjm	EPA 6020A
Magnesium	340	mg/L		07/26/23 08:54	5	0.10	08/01/23 13:44	wjm	EPA 6020A



Pace Analytical Services, LLC

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ANALYTICAL RESULTS

Sample: GG04129-02

Name: OM16

Matrix: Ground Water - Grab

Sampled: 07/24/23 12:45

Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	< 0.20	ug/L		07/26/23 08:54	5	0.20	08/01/23 13:44	wjm	EPA 6020A
Molybdenum	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 13:44	wjm	EPA 6020A
Potassium	1.3	mg/L		07/26/23 08:54	5	0.10	08/01/23 13:44	wjm	EPA 6020A
Selenium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 13:44	wjm	EPA 6020A
Sodium	21	mg/L		07/26/23 08:54	5	0.10	08/01/23 13:44	wjm	EPA 6020A
Thallium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 13:44	wjm	EPA 6020A
Lithium	0.031	mg/L		07/26/23 08:54	1	0.020	08/02/23 09:48	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04129-03
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 07/24/23 15:31

Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	240	mg/L		07/25/23 12:41	100	100	07/25/23 12:41	TMS	EPA 300.0 REV 2.1
Sulfate	890	mg/L		07/25/23 12:41	100	100	07/25/23 12:41	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.52	Feet		07/24/23 15:31	1		07/24/23 15:31	JD	Field*
Dissolved oxygen, Field	0.35	mg/L		07/24/23 15:31	1		07/24/23 15:31	JD	Field*
Oxidation Reduction Potential	-96.3	mV		07/24/23 15:31	1	-500	07/24/23 15:31	JD	Field*
pH, Field Measured	6.72	pH Units		07/24/23 15:31	1		07/24/23 15:31	JD	Field*
Specific Conductance, Field Measured	2624	umhos/cm		07/24/23 15:31	1		07/24/23 15:31	JD	Field*
Temperature, Field Measured	66.9	°F		07/24/23 15:31	1		07/24/23 15:31	JD	Field*
Temperature, Field Measured	19.4	°C		07/24/23 15:31	1		07/24/23 15:31	JD	Field*
Turbidity, Field Measured	2920	NTU		07/24/23 15:31	1	0.00	07/24/23 15:31	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	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*
Fluoride	0.252	mg/L		07/27/23 13:02	1	0.250	07/27/23 13:02	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2300	mg/L		07/28/23 10:45	1	26	07/28/23 14:16	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/26/23 08:54	5	3.0	08/01/23 12:10	wjm	EPA 6020A
Arsenic	6.2	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:10	wjm	EPA 6020A
Barium	46	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:10	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		07/26/23 08:54	5	1.0	07/28/23 13:37	TJJ	EPA 6020A
Boron	12000	ug/L		07/26/23 08:54	100	200	07/28/23 15:40	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:10	wjm	EPA 6020A
Calcium	370	mg/L		07/26/23 08:54	5	0.20	08/01/23 12:10	wjm	EPA 6020A
Chromium	7.2	ug/L		07/26/23 08:54	5	4.0	08/01/23 12:10	wjm	EPA 6020A
Cobalt	4.6	ug/L		07/26/23 08:54	5	2.0	08/01/23 12:10	wjm	EPA 6020A
Lead	4.7	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:10	wjm	EPA 6020A
Magnesium	130	mg/L		07/26/23 08:54	5	0.10	08/01/23 12:10	wjm	EPA 6020A



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ANALYTICAL RESULTS

Sample: GG04129-03
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 07/24/23 15:31

Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	0.22	ug/L		07/26/23 08:54	5	0.20	08/01/23 12:10	wjm	EPA 6020A
Molybdenum	7.2	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:10	wjm	EPA 6020A
Potassium	5.0	mg/L		07/26/23 08:54	5	0.10	08/01/23 12:10	wjm	EPA 6020A
Selenium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:10	wjm	EPA 6020A
Sodium	47	mg/L		07/26/23 08:54	5	0.10	08/01/23 12:10	wjm	EPA 6020A
Thallium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:10	wjm	EPA 6020A
Lithium	0.031	mg/L		07/26/23 08:54	1	0.020	08/02/23 09:49	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04129-10
Name: BA06
Matrix: Ground Water - Grab

Sampled: 07/24/23 15:34

Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	560	mg/L		07/25/23 13:59	100	100	07/25/23 13:59	TMS	EPA 300.0 REV 2.1
Sulfate	360	mg/L		07/25/23 13:59	100	100	07/25/23 13:59	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.04	Feet		07/24/23 15:34	1		07/24/23 15:34	JD	Field*
Dissolved oxygen, Field	2.5	mg/L		07/24/23 15:34	1		07/24/23 15:34	JD	Field*
Oxidation Reduction Potential	-40.0	mV		07/24/23 15:34	1	-500	07/24/23 15:34	JD	Field*
pH, Field Measured	6.54	pH Units		07/24/23 15:34	1		07/24/23 15:34	JD	Field*
Specific Conductance, Field Measured	3140	umhos/cm		07/24/23 15:34	1		07/24/23 15:34	JD	Field*
Temperature, Field Measured	65.7	°F		07/24/23 15:34	1		07/24/23 15:34	JD	Field*
Temperature, Field Measured	18.7	°C		07/24/23 15:34	1		07/24/23 15:34	JD	Field*
Turbidity, Field Measured	5.30	NTU		07/24/23 15:34	1	0.00	07/24/23 15:34	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	560	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*
Fluoride	0.264	mg/L		07/27/23 13:03	1	0.250	07/27/23 13:03	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2300	mg/L		07/28/23 10:45	1	26	07/28/23 14:16	MKH	SM 2540C
Soluble Nutrients - PIA									
Ammonia, Dissolved	< 0.10	mg/L		08/08/23 18:07	1	0.10	08/08/23 18:07	TTH	EPA 350.1 REV2
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/26/23 08:54	5	3.0	08/01/23 12:42	wjm	EPA 6020A
Arsenic	4.2	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:42	wjm	EPA 6020A
Barium	93	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:42	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		07/26/23 08:54	5	1.0	07/28/23 14:42	TJJ	EPA 6020A
Boron	9000	ug/L		07/26/23 08:54	5	10	07/28/23 14:42	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:42	wjm	EPA 6020A
Calcium	280	mg/L		07/26/23 08:54	5	0.20	08/01/23 12:42	wjm	EPA 6020A
Chromium	< 4.0	ug/L		07/26/23 08:54	5	4.0	08/01/23 12:42	wjm	EPA 6020A
Cobalt	9.7	ug/L		07/26/23 08:54	5	2.0	08/01/23 12:42	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04129-10
Name: BA06
Matrix: Ground Water - Grab

Sampled: 07/24/23 15:34

Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Lead	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:42	wjm	EPA 6020A
Magnesium	210	mg/L		07/26/23 08:54	5	0.10	08/01/23 12:42	wjm	EPA 6020A
Mercury	< 0.20	ug/L		07/26/23 08:54	5	0.20	08/01/23 12:42	wjm	EPA 6020A
Molybdenum	1.2	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:42	wjm	EPA 6020A
Potassium	0.28	mg/L		07/26/23 08:54	5	0.10	08/01/23 12:42	wjm	EPA 6020A
Selenium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:42	wjm	EPA 6020A
Sodium	16	mg/L		07/26/23 08:54	5	0.10	08/01/23 12:42	wjm	EPA 6020A
Thallium	< 1.0	ug/L		07/26/23 08:54	5	1.0	08/01/23 12:42	wjm	EPA 6020A
Lithium	< 0.020	mg/L		07/26/23 08:54	1	0.020	08/02/23 09:51	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04417-01
Name: OM17
Matrix: Ground Water - Grab

Sampled: 07/25/23 15:15

Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.8	mg/L		07/26/23 10:40	1	1.0	07/26/23 10:40	TMS	EPA 300.0 REV 2.1
Sulfate	350	mg/L	Q4	07/26/23 11:38	50	50	07/26/23 11:38	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.66	Feet		07/25/23 15:15	1		07/25/23 15:15	FIELD	Field*
Dissolved oxygen, Field	0.49	mg/L		07/25/23 15:15	1		07/25/23 15:15	FIELD	Field*
Oxidation Reduction Potential	-28.8	mV		07/25/23 15:15	1	-500	07/25/23 15:15	FIELD	Field*
pH, Field Measured	6.76	pH Units		07/25/23 15:15	1		07/25/23 15:15	FIELD	Field*
Specific Conductance, Field Measured	1092	umhos/cm		07/25/23 15:15	1		07/25/23 15:15	FIELD	Field*
Temperature, Field Measured	67.0	°F		07/25/23 15:15	1		07/25/23 15:15	FIELD	Field*
Temperature, Field Measured	19.4	°C		07/25/23 15:15	1		07/25/23 15:15	FIELD	Field*
Turbidity, Field Measured	1840	NTU		07/25/23 15:15	1	0.00	07/25/23 15:15	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	360	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*
Fluoride	< 0.250	mg/L		07/27/23 15:11	1	0.250	07/27/23 15:11	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	960	mg/L		08/01/23 09:40	1	26	08/01/23 11:00	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L	Q3	07/27/23 09:21	5	3.0	08/07/23 16:13	TJJ	EPA 6020A
Arsenic	34	ug/L		07/27/23 09:21	50	10	08/11/23 09:48	TJJ	EPA 6020A
Barium	1300	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:13	TJJ	EPA 6020A
Beryllium	16	ug/L		07/27/23 09:21	5	1.0	08/08/23 16:45	TJJ	EPA 6020A
Boron	470	ug/L	Q3	07/27/23 09:21	100	200	08/09/23 15:44	TJJ	EPA 6020A
Cadmium	9.2	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:13	TJJ	EPA 6020A
Calcium	290	mg/L	Q4	07/27/23 09:21	5	0.20	08/08/23 16:45	TJJ	EPA 6020A
Chromium	440	ug/L		07/27/23 09:21	5	4.0	08/07/23 16:13	TJJ	EPA 6020A
Cobalt	240	ug/L		07/27/23 09:21	5	2.0	08/07/23 16:13	TJJ	EPA 6020A
Lead	320	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:13	TJJ	EPA 6020A
Magnesium	180	mg/L	Q4	07/27/23 09:21	5	0.10	08/08/23 16:45	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GG04417-01

Name: OM17

Matrix: Ground Water - Grab

Sampled: 07/25/23 15:15

Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	0.83	ug/L		07/27/23 09:21	5	0.20	08/07/23 16:13	TJJ	EPA 6020A
Molybdenum	6.3	ug/L	Q3	07/27/23 09:21	5	1.0	08/08/23 16:45	TJJ	EPA 6020A
Potassium	24	mg/L		07/27/23 09:21	5	0.10	08/07/23 16:13	TJJ	EPA 6020A
Selenium	14	ug/L	Q3	07/27/23 09:21	5	1.0	08/08/23 16:45	TJJ	EPA 6020A
Sodium	5.6	mg/L		07/27/23 09:21	5	0.10	08/08/23 16:45	TJJ	EPA 6020A
Thallium	3.4	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:13	TJJ	EPA 6020A
Lithium	0.40	mg/L	F	07/27/23 09:21	1	0.020	08/02/23 10:48	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04417-02
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 07/25/23 14:24

Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	16	mg/L		07/26/23 12:17	5	5.0	07/26/23 12:17	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/26/23 11:57	1	0.250	07/26/23 11:57	TMS	EPA 300.0 REV 2.1
Sulfate	150	mg/L		07/26/23 12:36	25	25	07/26/23 12:36	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20	Feet		07/25/23 14:24	1		07/25/23 14:24	FIELD	Field*
Dissolved oxygen, Field	0.96	mg/L		07/25/23 14:24	1		07/25/23 14:24	FIELD	Field*
Oxidation Reduction Potential	-1.90	mV		07/25/23 14:24	1	-500	07/25/23 14:24	FIELD	Field*
pH, Field Measured	6.74	pH Units		07/25/23 14:24	1		07/25/23 14:24	FIELD	Field*
Specific Conductance, Field Measured	1208	umhos/cm		07/25/23 14:24	1		07/25/23 14:24	FIELD	Field*
Temperature, Field Measured	21.2	°C		07/25/23 14:24	1		07/25/23 14:24	FIELD	Field*
Temperature, Field Measured	70.2	°F		07/25/23 14:24	1		07/25/23 14:24	FIELD	Field*
Turbidity, Field Measured	122	NTU		07/25/23 14:24	1	0.00	07/25/23 14:24	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	540	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	740	mg/L		08/01/23 09:40	1	26	08/01/23 11:00	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/27/23 09:21	5	3.0	08/07/23 16:25	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/08/23 16:57	TJJ	EPA 6020A
Barium	51	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:25	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/08/23 16:57	TJJ	EPA 6020A
Boron	64	ug/L		07/27/23 09:21	5	10	08/09/23 16:35	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:25	TJJ	EPA 6020A
Calcium	150	mg/L		07/27/23 09:21	5	0.20	08/08/23 16:57	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/27/23 09:21	5	4.0	08/07/23 16:25	TJJ	EPA 6020A
Cobalt	8.9	ug/L		07/27/23 09:21	5	2.0	08/07/23 16:25	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:25	TJJ	EPA 6020A
Magnesium	75	mg/L		07/27/23 09:21	5	0.10	08/07/23 16:25	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GG04417-02

Name: OM04S

Matrix: Ground Water - Grab

Sampled: 07/25/23 14:24

Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	0.22	ug/L		07/27/23 09:21	5	0.20	08/07/23 16:25	TJJ	EPA 6020A
Molybdenum	1.3	ug/L		07/27/23 09:21	5	1.0	08/08/23 16:57	TJJ	EPA 6020A
Potassium	0.95	mg/L		07/27/23 09:21	5	0.10	08/07/23 16:25	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:25	TJJ	EPA 6020A
Sodium	14	mg/L		07/27/23 09:21	5	0.10	08/08/23 16:57	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:25	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/27/23 09:21	1	0.020	08/02/23 10:51	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04417-03
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 07/25/23 12:01

Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1100	mg/L		07/26/23 13:15	250	250	07/26/23 13:15	TMS	EPA 300.0 REV 2.1
Sulfate	1200	mg/L		07/26/23 13:15	250	250	07/26/23 13:15	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.21	Feet		07/25/23 12:01	1		07/25/23 12:01	FIELD	Field*
Dissolved oxygen, Field	0.43	mg/L		07/25/23 12:01	1		07/25/23 12:01	FIELD	Field*
Oxidation Reduction Potential	-30.2	mV		07/25/23 12:01	1	-500	07/25/23 12:01	FIELD	Field*
pH, Field Measured	6.73	pH Units		07/25/23 12:01	1		07/25/23 12:01	FIELD	Field*
Specific Conductance, Field Measured	5280	umhos/cm		07/25/23 12:01	1		07/25/23 12:01	FIELD	Field*
Temperature, Field Measured	21.3	°C		07/25/23 12:01	1		07/25/23 12:01	FIELD	Field*
Temperature, Field Measured	70.3	°F		07/25/23 12:01	1		07/25/23 12:01	FIELD	Field*
Turbidity, Field Measured	2150	NTU		07/25/23 12:01	1	0.00	07/25/23 12:01	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	490	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*
Fluoride	< 0.250	mg/L		07/27/23 15:12	1	0.250	07/27/23 15:12	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4700	mg/L		08/01/23 09:40	1	26	08/01/23 11:00	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/27/23 09:21	5	3.0	08/07/23 16:29	TJJ	EPA 6020A
Arsenic	3.3	ug/L		07/27/23 09:21	5	1.0	08/08/23 17:01	TJJ	EPA 6020A
Barium	29	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:29	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/08/23 17:01	TJJ	EPA 6020A
Boron	71000	ug/L		07/27/23 09:21	100	200	08/09/23 15:55	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:29	TJJ	EPA 6020A
Calcium	650	mg/L		07/27/23 09:21	100	4.0	08/10/23 10:49	TJJ	EPA 6020A
Chromium	5.5	ug/L		07/27/23 09:21	5	4.0	08/07/23 16:29	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/27/23 09:21	5	2.0	08/07/23 16:29	TJJ	EPA 6020A
Lead	1.1	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:29	TJJ	EPA 6020A
Magnesium	260	mg/L		07/27/23 09:21	5	0.10	08/08/23 17:01	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GG04417-03
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 07/25/23 12:01

Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	< 0.20	ug/L		07/27/23 09:21	5	0.20	08/07/23 16:29	TJJ	EPA 6020A
Molybdenum	3.9	ug/L		07/27/23 09:21	5	1.0	08/08/23 17:01	TJJ	EPA 6020A
Potassium	13	mg/L		07/27/23 09:21	5	0.10	08/07/23 16:29	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:29	TJJ	EPA 6020A
Sodium	200	mg/L		07/27/23 09:21	5	0.10	08/08/23 17:01	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/27/23 09:21	5	1.0	08/07/23 16:29	TJJ	EPA 6020A
Lithium	0.058	mg/L		07/27/23 09:21	1	0.020	08/02/23 10:53	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04630-01
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 07/26/23 13:15

Received: 07/26/23 15:29

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	13.35	Feet		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Dissolved oxygen, Field	0.49	mg/L		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Oxidation Reduction Potential	-69.0	mV		07/26/23 13:15	1	-500	07/26/23 13:15	FIELD	Field*
pH, Field Measured	6.65	pH Units		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Specific Conductance, Field Measured	1850	umhos/cm		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Temperature, Field Measured	24.8	°C		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Temperature, Field Measured	76.7	°F		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		07/26/23 13:15	1	0.00	07/26/23 13:15	FIELD	Field*
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/31/23 09:19	5	3.0	08/07/23 17:19	TJJ	EPA 6020A
Arsenic	8.3	ug/L		07/31/23 09:19	5	1.0	08/08/23 17:47	TJJ	EPA 6020A
Barium	33	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:19	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/08/23 17:47	TJJ	EPA 6020A
Boron	1800	ug/L		07/31/23 09:19	20	40	08/10/23 09:33	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:19	TJJ	EPA 6020A
Calcium	120	mg/L	Q4	07/31/23 09:19	5	0.20	08/08/23 17:47	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/31/23 09:19	5	4.0	08/07/23 17:19	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/31/23 09:19	5	2.0	08/07/23 17:19	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:19	TJJ	EPA 6020A
Magnesium	61	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:19	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/31/23 09:19	5	0.20	08/07/23 17:19	TJJ	EPA 6020A
Molybdenum	7.4	ug/L		07/31/23 09:19	5	1.0	08/08/23 17:47	TJJ	EPA 6020A
Potassium	5.2	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:19	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:19	TJJ	EPA 6020A
Sodium	270	mg/L	Q4	07/31/23 09:19	5	0.10	08/08/23 17:47	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:19	TJJ	EPA 6020A
Lithium	0.026	mg/L		07/31/23 09:19	1	0.020	08/02/23 11:03	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04630-02
Name: OR13D DUP
Matrix: Ground Water - Grab

Sampled: 07/26/23 13:15

Received: 07/26/23 15:29

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	13.35	Feet		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Dissolved oxygen, Field	0.49	mg/L		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Oxidation Reduction Potential	-69.0	mV		07/26/23 13:15	1	-500	07/26/23 13:15	FIELD	Field*
pH, Field Measured	6.65	pH Units		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Specific Conductance, Field Measured	1850	umhos/cm		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Temperature, Field Measured	24.8	°C		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Temperature, Field Measured	76.7	°F		07/26/23 13:15	1		07/26/23 13:15	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		07/26/23 13:15	1	0.00	07/26/23 13:15	FIELD	Field*
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/31/23 09:19	5	3.0	08/11/23 17:41	TJJ	EPA 6020A
Arsenic	9.1	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:11	TJJ	EPA 6020A
Barium	32	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:11	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:11	TJJ	EPA 6020A
Boron	1800	ug/L		07/31/23 09:19	20	40	08/10/23 09:44	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:38	TJJ	EPA 6020A
Calcium	120	mg/L		07/31/23 09:19	5	0.20	08/08/23 18:11	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/31/23 09:19	5	4.0	08/07/23 17:38	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/31/23 09:19	5	2.0	08/07/23 17:38	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:11	TJJ	EPA 6020A
Magnesium	62	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:38	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/31/23 09:19	5	0.20	08/08/23 18:11	TJJ	EPA 6020A
Molybdenum	7.7	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:11	TJJ	EPA 6020A
Potassium	5.3	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:38	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:38	TJJ	EPA 6020A
Sodium	260	mg/L		07/31/23 09:19	5	0.10	08/08/23 18:11	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:11	TJJ	EPA 6020A
Lithium	0.027	mg/L		07/31/23 09:19	1	0.020	08/02/23 11:07	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04630-03
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 07/26/23 11:42

Received: 07/26/23 15:29

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	13.52	Feet		07/26/23 11:42	1		07/26/23 11:42	FIELD	Field*
Dissolved oxygen, Field	2.1	mg/L		07/26/23 11:42	1		07/26/23 11:42	FIELD	Field*
Oxidation Reduction Potential	-33.0	mV		07/26/23 11:42	1	-500	07/26/23 11:42	FIELD	Field*
pH, Field Measured	6.48	pH Units		07/26/23 11:42	1		07/26/23 11:42	FIELD	Field*
Specific Conductance, Field Measured	2110	umhos/cm		07/26/23 11:42	1		07/26/23 11:42	FIELD	Field*
Temperature, Field Measured	21.0	°C		07/26/23 11:42	1		07/26/23 11:42	FIELD	Field*
Temperature, Field Measured	69.8	°F		07/26/23 11:42	1		07/26/23 11:42	FIELD	Field*
Turbidity, Field Measured	530	NTU		07/26/23 11:42	1	0.00	07/26/23 11:42	FIELD	Field*
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/31/23 09:19	5	3.0	08/07/23 17:42	TJJ	EPA 6020A
Arsenic	16	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:15	TJJ	EPA 6020A
Barium	26	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:42	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:15	TJJ	EPA 6020A
Boron	3100	ug/L		07/31/23 09:19	20	40	08/10/23 09:48	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:42	TJJ	EPA 6020A
Calcium	290	mg/L		07/31/23 09:19	5	0.20	08/08/23 18:15	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/31/23 09:19	5	4.0	08/07/23 17:42	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/31/23 09:19	5	2.0	08/07/23 17:42	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:42	TJJ	EPA 6020A
Magnesium	130	mg/L		07/31/23 09:19	5	0.10	08/08/23 18:15	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/31/23 09:19	5	0.20	08/07/23 17:42	TJJ	EPA 6020A
Molybdenum	7.2	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:15	TJJ	EPA 6020A
Potassium	3.8	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:42	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:42	TJJ	EPA 6020A
Sodium	74	mg/L		07/31/23 09:19	5	0.10	08/08/23 18:15	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:42	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/31/23 09:19	1	0.020	08/02/23 11:08	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04630-04
Name: OR11
Matrix: Ground Water - Grab

Sampled: 07/26/23 10:10

Received: 07/26/23 15:29

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	31.84	Feet		07/26/23 10:10	1		07/26/23 10:10	FIELD	Field*
Dissolved oxygen, Field	2.9	mg/L		07/26/23 10:10	1		07/26/23 10:10	FIELD	Field*
Oxidation Reduction Potential	2.80	mV		07/26/23 10:10	1	-500	07/26/23 10:10	FIELD	Field*
pH, Field Measured	7.02	pH Units		07/26/23 10:10	1		07/26/23 10:10	FIELD	Field*
Specific Conductance, Field Measured	1214	umhos/cm		07/26/23 10:10	1		07/26/23 10:10	FIELD	Field*
Temperature, Field Measured	15.2	°C		07/26/23 10:10	1		07/26/23 10:10	FIELD	Field*
Temperature, Field Measured	59.4	°F		07/26/23 10:10	1		07/26/23 10:10	FIELD	Field*
Turbidity, Field Measured	534	NTU		07/26/23 10:10	1	0.00	07/26/23 10:10	FIELD	Field*
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/31/23 09:19	5	3.0	08/07/23 17:46	TJJ	EPA 6020A
Arsenic	5.5	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:19	TJJ	EPA 6020A
Barium	100	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:46	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:19	TJJ	EPA 6020A
Boron	9800	ug/L		07/31/23 09:19	20	40	08/10/23 09:52	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:46	TJJ	EPA 6020A
Calcium	160	mg/L		07/31/23 09:19	5	0.20	08/08/23 18:19	TJJ	EPA 6020A
Chromium	5.9	ug/L		07/31/23 09:19	5	4.0	08/07/23 17:46	TJJ	EPA 6020A
Cobalt	4.6	ug/L		07/31/23 09:19	5	2.0	08/07/23 17:46	TJJ	EPA 6020A
Lead	7.1	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:46	TJJ	EPA 6020A
Magnesium	68	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:46	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/31/23 09:19	5	0.20	08/07/23 17:46	TJJ	EPA 6020A
Molybdenum	7.1	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:19	TJJ	EPA 6020A
Potassium	5.1	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:46	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:46	TJJ	EPA 6020A
Sodium	33	mg/L		07/31/23 09:19	5	0.10	08/08/23 18:19	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:46	TJJ	EPA 6020A
Lithium	0.020	mg/L		07/31/23 09:19	1	0.020	08/02/23 11:09	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04630-05
Name: OM07
Matrix: Ground Water - Grab

Sampled: 07/26/23 11:52
Received: 07/26/23 15:29

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	12.41	Feet		07/26/23 11:52	1		07/26/23 11:52	FIELD	Field*
Dissolved oxygen, Field	1.4	mg/L		07/26/23 11:52	1		07/26/23 11:52	FIELD	Field*
Oxidation Reduction Potential	-22.2	mV		07/26/23 11:52	1	-500	07/26/23 11:52	FIELD	Field*
pH, Field Measured	6.88	pH Units		07/26/23 11:52	1		07/26/23 11:52	FIELD	Field*
Specific Conductance, Field Measured	1101	umhos/cm		07/26/23 11:52	1		07/26/23 11:52	FIELD	Field*
Temperature, Field Measured	21.8	°C		07/26/23 11:52	1		07/26/23 11:52	FIELD	Field*
Temperature, Field Measured	71.2	°F		07/26/23 11:52	1		07/26/23 11:52	FIELD	Field*
Turbidity, Field Measured	319	NTU		07/26/23 11:52	1	0.00	07/26/23 11:52	FIELD	Field*
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/31/23 09:19	5	3.0	08/07/23 17:50	TJJ	EPA 6020A
Arsenic	2.5	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:22	TJJ	EPA 6020A
Barium	100	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:50	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:22	TJJ	EPA 6020A
Boron	1800	ug/L		07/31/23 09:19	20	40	08/10/23 09:56	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:50	TJJ	EPA 6020A
Calcium	140	mg/L		07/31/23 09:19	5	0.20	08/08/23 18:22	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/31/23 09:19	5	4.0	08/07/23 17:50	TJJ	EPA 6020A
Cobalt	6.8	ug/L		07/31/23 09:19	5	2.0	08/07/23 17:50	TJJ	EPA 6020A
Lead	1.3	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:50	TJJ	EPA 6020A
Magnesium	75	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:50	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/31/23 09:19	5	0.20	08/07/23 17:50	TJJ	EPA 6020A
Molybdenum	1.3	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:22	TJJ	EPA 6020A
Potassium	1.4	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:50	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:50	TJJ	EPA 6020A
Sodium	57	mg/L		07/31/23 09:19	5	0.10	08/08/23 18:22	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:50	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/31/23 09:19	1	0.020	08/02/23 11:10	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04630-06
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 07/26/23 12:33

Received: 07/26/23 15:29

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	14.07	Feet		07/26/23 12:33	1		07/26/23 12:33	FIELD	Field*
Dissolved oxygen, Field	2.4	mg/L		07/26/23 12:33	1		07/26/23 12:33	FIELD	Field*
Oxidation Reduction Potential	-32.8	mV		07/26/23 12:33	1	-500	07/26/23 12:33	FIELD	Field*
pH, Field Measured	6.81	pH Units		07/26/23 12:33	1		07/26/23 12:33	FIELD	Field*
Specific Conductance, Field Measured	3301	umhos/cm		07/26/23 12:33	1		07/26/23 12:33	FIELD	Field*
Temperature, Field Measured	65.1	°F		07/26/23 12:33	1		07/26/23 12:33	FIELD	Field*
Temperature, Field Measured	18.4	°C		07/26/23 12:33	1		07/26/23 12:33	FIELD	Field*
Turbidity, Field Measured	382	NTU		07/26/23 12:33	1	0.00	07/26/23 12:33	FIELD	Field*
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/31/23 09:19	5	3.0	08/07/23 17:54	TJJ	EPA 6020A
Arsenic	12	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:26	TJJ	EPA 6020A
Barium	54	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:54	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:26	TJJ	EPA 6020A
Boron	66000	ug/L		07/31/23 09:19	100	200	08/10/23 09:59	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:54	TJJ	EPA 6020A
Calcium	480	mg/L		07/31/23 09:19	5	0.20	08/08/23 18:26	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/31/23 09:19	5	4.0	08/07/23 17:54	TJJ	EPA 6020A
Cobalt	3.8	ug/L		07/31/23 09:19	5	2.0	08/07/23 17:54	TJJ	EPA 6020A
Lead	3.6	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:54	TJJ	EPA 6020A
Magnesium	130	mg/L		07/31/23 09:19	5	0.10	08/08/23 18:26	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/31/23 09:19	5	0.20	08/07/23 17:54	TJJ	EPA 6020A
Molybdenum	92	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:26	TJJ	EPA 6020A
Potassium	2.8	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:54	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:54	TJJ	EPA 6020A
Sodium	91	mg/L		07/31/23 09:19	5	0.10	08/08/23 18:26	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:54	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/31/23 09:19	1	0.020	08/02/23 11:11	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04630-07
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 07/26/23 13:30

Received: 07/26/23 15:29

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	57.96	Feet		07/26/23 13:30	1		07/26/23 13:30	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		07/26/23 13:30	1		07/26/23 13:30	FIELD	Field*
Oxidation Reduction Potential	0.900	mV		07/26/23 13:30	1	-500	07/26/23 13:30	FIELD	Field*
pH, Field Measured	6.87	pH Units		07/26/23 13:30	1		07/26/23 13:30	FIELD	Field*
Specific Conductance, Field Measured	3223	umhos/cm		07/26/23 13:30	1		07/26/23 13:30	FIELD	Field*
Temperature, Field Measured	65.0	°F		07/26/23 13:30	1		07/26/23 13:30	FIELD	Field*
Temperature, Field Measured	18.3	°C		07/26/23 13:30	1		07/26/23 13:30	FIELD	Field*
Turbidity, Field Measured	409	NTU		07/26/23 13:30	1	0.00	07/26/23 13:30	FIELD	Field*
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/31/23 09:19	5	3.0	08/07/23 17:57	TJJ	EPA 6020A
Arsenic	21	ug/L		07/31/23 09:19	100	20	08/10/23 10:37	TJJ	EPA 6020A
Barium	390	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:57	TJJ	EPA 6020A
Beryllium	4.2	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:30	TJJ	EPA 6020A
Boron	29000	ug/L		07/31/23 09:19	100	200	08/10/23 10:37	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:57	TJJ	EPA 6020A
Calcium	460	mg/L		07/31/23 09:19	5	0.20	08/08/23 18:30	TJJ	EPA 6020A
Chromium	120	ug/L		07/31/23 09:19	5	4.0	08/07/23 17:57	TJJ	EPA 6020A
Cobalt	78	ug/L		07/31/23 09:19	5	2.0	08/07/23 17:57	TJJ	EPA 6020A
Lead	70	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:57	TJJ	EPA 6020A
Magnesium	260	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:57	TJJ	EPA 6020A
Mercury	0.21	ug/L		07/31/23 09:19	5	0.20	08/07/23 17:57	TJJ	EPA 6020A
Molybdenum	7.7	ug/L		07/31/23 09:19	5	1.0	08/08/23 18:30	TJJ	EPA 6020A
Potassium	17	mg/L		07/31/23 09:19	5	0.10	08/07/23 17:57	TJJ	EPA 6020A
Selenium	4.0	ug/L		07/31/23 09:19	5	1.0	08/12/23 10:05	TJJ	EPA 6020A
Sodium	130	mg/L		07/31/23 09:19	5	0.10	08/08/23 18:30	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/31/23 09:19	5	1.0	08/07/23 17:57	TJJ	EPA 6020A
Lithium	0.17	mg/L		07/31/23 09:19	1	0.020	08/02/23 11:15	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04978-01
Name: OM12
Matrix: Ground Water - Grab

Sampled: 07/27/23 16:02

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	3.3	mg/L		07/28/23 12:33	1	1.0	07/28/23 12:33	CRD	EPA 300.0 REV 2.1
Fluoride	0.257	mg/L		07/28/23 12:33	1	0.250	07/28/23 12:33	CRD	EPA 300.0 REV 2.1
Sulfate	460	mg/L	Q4	07/28/23 13:51	50	50	07/28/23 13:51	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	17.31	Feet		07/27/23 16:02	1		07/27/23 16:02	FIELD	Field*
Dissolved oxygen, Field	2.4	mg/L		07/27/23 16:02	1		07/27/23 16:02	FIELD	Field*
Oxidation Reduction Potential	-87.6	mV		07/27/23 16:02	1	-500	07/27/23 16:02	FIELD	Field*
pH, Field Measured	7.28	pH Units		07/27/23 16:02	1		07/27/23 16:02	FIELD	Field*
Specific Conductance, Field Measured	1937	umhos/cm		07/27/23 16:02	1		07/27/23 16:02	FIELD	Field*
Temperature, Field Measured	20.0	°C		07/27/23 16:02	1		07/27/23 16:02	FIELD	Field*
Temperature, Field Measured	67.9	°F		07/27/23 16:02	1		07/27/23 16:02	FIELD	Field*
Turbidity, Field Measured	66.3	NTU		07/27/23 16:02	1	0.00	07/27/23 16:02	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	800	mg/L		08/09/23 11:11	1	10	08/09/23 11:11	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	1400	mg/L		08/02/23 11:04	1	26	08/02/23 14:29	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		08/02/23 08:02	5	3.0	08/10/23 13:01	TJJ	EPA 6020A
Arsenic	10	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:01	TJJ	EPA 6020A
Barium	170	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:01	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:01	TJJ	EPA 6020A
Boron	92	ug/L		08/02/23 08:02	5	10	08/10/23 13:01	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:01	TJJ	EPA 6020A
Calcium	300	mg/L	Q4	08/02/23 08:02	5	0.20	08/10/23 13:01	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/02/23 08:02	5	4.0	08/10/23 13:01	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/02/23 08:02	5	2.0	08/10/23 13:01	TJJ	EPA 6020A
Lead	1.5	ug/L		08/02/23 08:02	5	1.0	08/11/23 10:43	TJJ	EPA 6020A
Magnesium	120	mg/L	Q4	08/02/23 08:02	5	0.10	08/10/23 13:01	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04978-01**Name:** OM12**Matrix:** Ground Water - Grab**Sampled:** 07/27/23 16:02**Received:** 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	< 0.20	ug/L		08/02/23 08:02	5	0.20	08/11/23 10:43	TJJ	EPA 6020A
Molybdenum	1.9	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:01	TJJ	EPA 6020A
Potassium	2.0	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:01	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 10:43	TJJ	EPA 6020A
Sodium	14	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:01	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 10:43	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		08/02/23 08:02	1	0.020	08/09/23 09:48	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04978-02
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 07/27/23 14:12

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	29	mg/L		07/28/23 14:29	5	5.0	07/28/23 14:29	CRD	EPA 300.0 REV 2.1
Fluoride	0.284	mg/L		07/28/23 14:10	1	0.250	07/28/23 14:10	CRD	EPA 300.0 REV 2.1
Sulfate	410	mg/L		07/28/23 14:49	50	50	07/28/23 14:49	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	38.54	Feet		07/27/23 14:12	1		07/27/23 14:12	FIELD	Field*
Dissolved oxygen, Field	8.7	mg/L		07/27/23 14:12	1		07/27/23 14:12	FIELD	Field*
Oxidation Reduction Potential	-20.0	mV		07/27/23 14:12	1	-500	07/27/23 14:12	FIELD	Field*
pH, Field Measured	6.34	pH Units		07/27/23 14:12	1		07/27/23 14:12	FIELD	Field*
Specific Conductance, Field Measured	1610	umhos/cm		07/27/23 14:12	1		07/27/23 14:12	FIELD	Field*
Temperature, Field Measured	14.3	°C		07/27/23 14:12	1		07/27/23 14:12	FIELD	Field*
Temperature, Field Measured	57.8	°F		07/27/23 14:12	1		07/27/23 14:12	FIELD	Field*
Turbidity, Field Measured	113	NTU		07/27/23 14:12	1	0.00	07/27/23 14:12	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	620	mg/L		08/09/23 11:11	1	10	08/09/23 11:11	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	1200	mg/L		08/02/23 11:04	1	26	08/02/23 14:29	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		08/02/23 08:02	5	3.0	08/10/23 13:12	TJJ	EPA 6020A
Arsenic	1.5	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:12	TJJ	EPA 6020A
Barium	33	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:12	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:12	TJJ	EPA 6020A
Boron	2000	ug/L		08/02/23 08:02	5	10	08/10/23 13:12	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:12	TJJ	EPA 6020A
Calcium	170	mg/L		08/02/23 08:02	5	0.20	08/10/23 13:12	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/02/23 08:02	5	4.0	08/10/23 13:12	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/02/23 08:02	5	2.0	08/10/23 13:12	TJJ	EPA 6020A
Lead	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 10:54	TJJ	EPA 6020A
Magnesium	97	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:12	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GG04978-02
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 07/27/23 14:12

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	0.23	ug/L		08/02/23 08:02	5	0.20	08/11/23 10:54	TJJ	EPA 6020A
Molybdenum	2.5	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:12	TJJ	EPA 6020A
Potassium	5.6	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:12	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 10:54	TJJ	EPA 6020A
Sodium	110	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:12	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 10:54	TJJ	EPA 6020A
Lithium	0.033	mg/L		08/02/23 08:02	1	0.020	08/09/23 09:51	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG04978-03
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 07/27/23 15:40

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	450	mg/L		07/28/23 15:27	50	50	07/28/23 15:27	CRD	EPA 300.0 REV 2.1
Sulfate	770	mg/L		08/01/23 15:45	250	250	08/01/23 15:45	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	4.9	Feet		07/27/23 15:40	1		07/27/23 15:40	FIELD	Field*
Dissolved oxygen, Field	1.9	mg/L		07/27/23 15:40	1		07/27/23 15:40	FIELD	Field*
Oxidation Reduction Potential	-61.0	mV		07/27/23 15:40	1	-500	07/27/23 15:40	FIELD	Field*
pH, Field Measured	6.32	pH Units		07/27/23 15:40	1		07/27/23 15:40	FIELD	Field*
Specific Conductance, Field Measured	2640	umhos/cm		07/27/23 15:40	1		07/27/23 15:40	FIELD	Field*
Temperature, Field Measured	83.8	°F		07/27/23 15:40	1		07/27/23 15:40	FIELD	Field*
Temperature, Field Measured	28.8	°C		07/27/23 15:40	1		07/27/23 15:40	FIELD	Field*
Turbidity, Field Measured	710	NTU		07/27/23 15:40	1	0.00	07/27/23 15:40	FIELD	Field*
General Chemistry - PIA									
Fluoride	< 0.250	mg/L		08/01/23 16:54	1	0.250	08/01/23 16:54	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2500	mg/L		08/02/23 11:04	1	26	08/02/23 14:29	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		08/02/23 08:02	5	3.0	08/10/23 13:43	TJJ	EPA 6020A
Arsenic	5.8	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:43	TJJ	EPA 6020A
Barium	25	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:43	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:43	TJJ	EPA 6020A
Boron	18000	ug/L		08/02/23 08:02	100	200	08/11/23 10:58	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:43	TJJ	EPA 6020A
Calcium	420	mg/L		08/02/23 08:02	100	4.0	08/11/23 10:58	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		08/02/23 08:02	5	4.0	08/10/23 13:43	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/02/23 08:02	5	2.0	08/10/23 13:43	TJJ	EPA 6020A
Lead	1.9	ug/L		08/02/23 08:02	5	1.0	08/11/23 17:53	TJJ	EPA 6020A
Magnesium	140	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:43	TJJ	EPA 6020A
Mercury	< 4.0	ug/L		08/02/23 08:02	100	4.0	08/11/23 10:58	TJJ	EPA 6020A
Molybdenum	5.3	ug/L		08/02/23 08:02	5	1.0	08/10/23 13:43	TJJ	EPA 6020A
Potassium	4.2	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:43	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04978-03
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 07/27/23 15:40

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 17:53	TJJ	EPA 6020A
Sodium	110	mg/L		08/02/23 08:02	5	0.10	08/10/23 13:43	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 17:53	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		08/02/23 08:02	1	0.020	08/09/23 09:52	BRS	EPA 6010B

Sample: GG04978-09
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 07/27/23 16:34

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	43	mg/L		08/09/23 21:27	10	10	08/09/23 21:27	CRD	EPA 300.0 REV 2.1
Fluoride	0.343	mg/L		07/28/23 19:20	1	0.250	07/28/23 19:20	CRD	EPA 300.0 REV 2.1
Sulfate	290	mg/L		08/09/23 21:46	100	100	08/09/23 21:46	CRD	EPA 300.0 REV 2.1

Sample: GG04978-10
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 07/27/23 11:01

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	28	mg/L		08/09/23 23:04	10	10	08/09/23 23:04	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/28/23 20:18	1	0.250	07/28/23 20:18	CRD	EPA 300.0 REV 2.1
Sulfate	520	mg/L		08/09/23 23:23	250	250	08/09/23 23:23	CRD	EPA 300.0 REV 2.1

Sample: GG04978-11
Name: OM07
Matrix: Ground Water - Grab

Sampled: 07/27/23 11:35

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	12	mg/L		08/10/23 00:02	5	5.0	08/10/23 00:02	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/28/23 20:37	1	0.250	07/28/23 20:37	CRD	EPA 300.0 REV 2.1
Sulfate	180	mg/L	Q4	08/10/23 00:21	50	50	08/10/23 00:21	CRD	EPA 300.0 REV 2.1



ANALYTICAL RESULTS

Sample: GG04978-12
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 07/27/23 11:59

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	180	mg/L		08/10/23 01:38	100	100	08/10/23 01:38	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/28/23 21:35	1	0.250	07/28/23 21:35	CRD	EPA 300.0 REV 2.1
Sulfate	390	mg/L		08/10/23 01:38	100	100	08/10/23 01:38	CRD	EPA 300.0 REV 2.1

Sample: GG04978-13
Name: OR11
Matrix: Ground Water - Grab

Sampled: 07/27/23 12:19

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	60	mg/L		08/10/23 02:56	25	25	08/10/23 02:56	CRD	EPA 300.0 REV 2.1
Fluoride	0.281	mg/L		07/28/23 21:55	1	0.250	07/28/23 21:55	CRD	EPA 300.0 REV 2.1
Sulfate	130	mg/L		08/10/23 02:56	25	25	08/10/23 02:56	CRD	EPA 300.0 REV 2.1

Sample: GG04978-14
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 07/27/23 12:41

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	610	mg/L		08/10/23 03:34	250	250	08/10/23 03:34	CRD	EPA 300.0 REV 2.1
Sulfate	710	mg/L		08/10/23 03:34	250	250	08/10/23 03:34	CRD	EPA 300.0 REV 2.1
General Chemistry - PIA									
Fluoride	< 0.250	mg/L		08/15/23 14:00	1	0.250	08/15/23 14:00	TTH	SM 4500F C 1997



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ANALYTICAL RESULTS

Sample: GG04978-15

Name: OR13D DUP

Matrix: Ground Water - Field Duplicate

Sampled: 07/27/23 16:34

Received: 07/27/23 18:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	43	mg/L		08/10/23 04:13	10	10	08/10/23 04:13	CRD	EPA 300.0 REV 2.1
Fluoride	0.273	mg/L		07/28/23 22:53	1	0.250	07/28/23 22:53	CRD	EPA 300.0 REV 2.1
Sulfate	290	mg/L		08/10/23 04:32	100	100	08/10/23 04:32	CRD	EPA 300.0 REV 2.1



ANALYTICAL RESULTS

Sample: GG05277-01
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 07/31/23 11:30

Received: 07/31/23 16:05

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1100	mg/L	Q4	08/01/23 10:55	250	250	08/01/23 10:55	TMS	EPA 300.0 REV 2.1
Sulfate	630	mg/L	Q4	08/01/23 10:55	250	250	08/01/23 10:55	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	44.94	Feet		07/31/23 11:30	1		07/31/23 11:30	FIELD	Field*
Dissolved oxygen, Field	3.4	mg/L		07/31/23 11:30	1		07/31/23 11:30	FIELD	Field*
Oxidation Reduction Potential	-14.0	mV		07/31/23 11:30	1	-500	07/31/23 11:30	FIELD	Field*
pH, Field Measured	6.95	pH Units		07/31/23 11:30	1		07/31/23 11:30	FIELD	Field*
Specific Conductance, Field Measured	4020	umhos/cm		07/31/23 11:30	1		07/31/23 11:30	FIELD	Field*
Temperature, Field Measured	15.5	°C		07/31/23 11:30	1		07/31/23 11:30	FIELD	Field*
Temperature, Field Measured	59.9	°F		07/31/23 11:30	1		07/31/23 11:30	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		07/31/23 11:30	1	0.00	07/31/23 11:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	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*
Fluoride	< 0.250	mg/L		08/07/23 16:04	1	0.250	08/07/23 16:04	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	5200	mg/L		08/02/23 11:04	1	26	08/02/23 14:29	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 6.0	ug/L		08/02/23 08:02	10	6.0	08/10/23 14:10	TJJ	EPA 6020A
Arsenic	36	ug/L		08/02/23 08:02	10	2.0	08/10/23 14:10	TJJ	EPA 6020A
Barium	1000	ug/L		08/02/23 08:02	10	2.0	08/10/23 14:10	TJJ	EPA 6020A
Beryllium	6.6	ug/L		08/02/23 08:02	10	2.0	08/10/23 14:10	TJJ	EPA 6020A
Boron	41000	ug/L		08/02/23 08:02	100	200	08/11/23 11:50	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 16:51	TJJ	EPA 6020A
Calcium	730	mg/L		08/02/23 08:02	100	4.0	08/12/23 08:48	TJJ	EPA 6020A
Chromium	230	ug/L		08/02/23 08:02	10	8.0	08/10/23 14:10	TJJ	EPA 6020A
Cobalt	120	ug/L		08/02/23 08:02	10	4.0	08/10/23 14:10	TJJ	EPA 6020A
Lead	96	ug/L		08/02/23 08:02	10	2.0	08/10/23 14:10	TJJ	EPA 6020A
Magnesium	360	mg/L		08/02/23 08:02	10	0.20	08/10/23 14:10	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GG05277-01

Name: OR03D

Matrix: Ground Water - Grab

Sampled: 07/31/23 11:30

Received: 07/31/23 16:05

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	< 0.20	ug/L		08/02/23 08:02	5	0.20	08/11/23 16:51	TJJ	EPA 6020A
Molybdenum	14	ug/L		08/02/23 08:02	10	2.0	08/10/23 14:10	TJJ	EPA 6020A
Potassium	24	mg/L		08/02/23 08:02	10	0.20	08/10/23 14:10	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 16:51	TJJ	EPA 6020A
Sodium	170	mg/L		08/02/23 08:02	10	0.20	08/10/23 14:10	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 16:51	TJJ	EPA 6020A
Lithium	0.22	mg/L	F	08/02/23 08:02	1	0.020	08/09/23 09:59	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GG05277-02
Name: OR19
Matrix: Ground Water - Grab

Sampled: 07/31/23 13:27

Received: 07/31/23 16:05

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	160	mg/L		08/01/23 11:34	100	100	08/01/23 11:34	TMS	EPA 300.0 REV 2.1
Sulfate	910	mg/L		08/01/23 11:34	100	100	08/01/23 11:34	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.99	Feet		07/31/23 13:27	1		07/31/23 13:27	FIELD	Field*
Dissolved oxygen, Field	1.5	mg/L		07/31/23 13:27	1		07/31/23 13:27	FIELD	Field*
Oxidation Reduction Potential	-41.0	mV		07/31/23 13:27	1	-500	07/31/23 13:27	FIELD	Field*
pH, Field Measured	6.69	pH Units		07/31/23 13:27	1		07/31/23 13:27	FIELD	Field*
Specific Conductance, Field Measured	2710	umhos/cm		07/31/23 13:27	1		07/31/23 13:27	FIELD	Field*
Temperature, Field Measured	69.5	°F		07/31/23 13:27	1		07/31/23 13:27	FIELD	Field*
Temperature, Field Measured	20.8	°C		07/31/23 13:27	1		07/31/23 13:27	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		07/31/23 13:27	1	0.00	07/31/23 13:27	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	610	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*
Fluoride	0.384	mg/L		08/07/23 16:05	1	0.250	08/07/23 16:05	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2500	mg/L		08/02/23 11:04	1	26	08/02/23 14:29	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		08/02/23 08:02	5	3.0	08/12/23 08:52	TJJ	EPA 6020A
Arsenic	1.4	ug/L		08/02/23 08:02	5	1.0	08/11/23 17:03	TJJ	EPA 6020A
Barium	40	ug/L		08/02/23 08:02	10	2.0	08/10/23 14:14	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/12/23 08:52	TJJ	EPA 6020A
Boron	13000	ug/L		08/02/23 08:02	10	20	08/10/23 14:14	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 17:03	TJJ	EPA 6020A
Calcium	360	mg/L		08/02/23 08:02	5	0.20	08/11/23 17:03	TJJ	EPA 6020A
Chromium	8.2	ug/L		08/02/23 08:02	5	4.0	08/12/23 08:52	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		08/02/23 08:02	5	2.0	08/11/23 17:03	TJJ	EPA 6020A
Lead	4.3	ug/L		08/02/23 08:02	10	2.0	08/10/23 14:14	TJJ	EPA 6020A
Magnesium	150	mg/L		08/02/23 08:02	10	0.20	08/10/23 14:14	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GG05277-02

Name: OR19

Matrix: Ground Water - Grab

Sampled: 07/31/23 13:27

Received: 07/31/23 16:05

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Mercury	0.22	ug/L		08/02/23 08:02	5	0.20	08/11/23 17:03	TJJ	EPA 6020A
Molybdenum	4.0	ug/L		08/02/23 08:02	10	2.0	08/10/23 14:14	TJJ	EPA 6020A
Potassium	5.6	mg/L		08/02/23 08:02	10	0.20	08/10/23 14:14	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 17:03	TJJ	EPA 6020A
Sodium	140	mg/L		08/02/23 08:02	10	0.20	08/10/23 14:14	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		08/02/23 08:02	5	1.0	08/11/23 17:03	TJJ	EPA 6020A
Lithium	0.022	mg/L		08/02/23 08:02	1	0.020	08/09/23 10:01	BRS	EPA 6010B



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B339086 - SW 3015 - EPA 6010B</u>									
Blank (B339086-BLK1)				Prepared: 07/20/23 Analyzed: 07/26/23					
Lithium	< 0.020	mg/L							
LCS (B339086-BS1)				Prepared: 07/20/23 Analyzed: 07/26/23					
Lithium	0.529	mg/L		0.5556		95	80-120		
<u>Batch B339086 - SW 3015 - EPA 6020A</u>									
Blank (B339086-BLK1)				Prepared: 07/20/23 Analyzed: 08/01/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B339086-BS1)				Prepared: 07/20/23 Analyzed: 08/01/23					
Antimony	527	ug/L		555.6		95	80-120		
Arsenic	532	ug/L		555.6		96	80-120		
Barium	510	ug/L		555.6		92	80-120		
Beryllium	614	ug/L		555.6		111	80-120		
Boron	624	ug/L		555.6		112	80-120		
Cadmium	529	ug/L		555.6		95	80-120		
Calcium	5.18	mg/L		5.556		93	80-120		
Chromium	554	ug/L		555.6		100	80-120		
Cobalt	546	ug/L		555.6		98	80-120		
Lead	530	ug/L		555.6		95	80-120		
Magnesium	6.17	mg/L		5.556		111	80-120		
Mercury	52.7	ug/L		55.56		95	80-120		
Molybdenum	515	ug/L		555.6		93	80-120		
Potassium	5.67	mg/L		5.556		102	80-120		
Selenium	550	ug/L		555.6		99	80-120		
Sodium	5.72	mg/L		5.556		103	80-120		
Thallium	522	ug/L		555.6		94	80-120		

Batch B339233 - 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
Matrix Spike (B339233-MS1)				Sample: GG03353-04		Prepared & Analyzed: 07/20/23			
Sulfate	1.00E9	mg/L	Q4	1.500	1180	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	270	NR	80-120		
Matrix Spike Dup (B339233-MSD1)				Sample: GG03353-04		Prepared & Analyzed: 07/20/23			
Chloride	1.0E9	mg/L	Q4	1.500	270	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	1180	NR	80-120	0	20
<u>Batch B339333 - SW 3015 - EPA 6010B</u>									
Blank (B339333-BLK1)				Prepared: 07/24/23 Analyzed: 07/26/23					
Lithium	< 0.020	mg/L							
LCS (B339333-BS1)				Prepared: 07/24/23 Analyzed: 07/26/23					
Lithium	0.520	mg/L		0.5556		94	80-120		
Matrix Spike (B339333-MS1)				Sample: GG03704-01		Prepared: 07/24/23 Analyzed: 07/26/23			
Lithium	0.531	mg/L		0.5556	ND	95	75-125		
Matrix Spike Dup (B339333-MSD1)				Sample: GG03704-01		Prepared: 07/24/23 Analyzed: 07/26/23			
Lithium	0.523	mg/L		0.5556	ND	94	75-125	2	20
<u>Batch B339333 - SW 3015 - EPA 6020A</u>									
Blank (B339333-BLK1)				Prepared: 07/24/23 Analyzed: 08/01/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B339333-BS1)				Prepared: 07/24/23 Analyzed: 08/01/23					
Antimony	535	ug/L		555.6		96	80-120		
Arsenic	551	ug/L		555.6		99	80-120		
Barium	517	ug/L		555.6		93	80-120		
Beryllium	624	ug/L		555.6		112	80-120		
Boron	624	ug/L		555.6		112	80-120		
Cadmium	557	ug/L		555.6		100	80-120		
Calcium	4.80	mg/L		5.556		86	80-120		
Chromium	582	ug/L		555.6		105	80-120		
Cobalt	572	ug/L		555.6		103	80-120		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B339333-BS1)				Prepared: 07/24/23 Analyzed: 08/01/23					
Lead	548	ug/L		555.6		99	80-120		
Magnesium	5.31	mg/L		5.556		96	80-120		
Mercury	54.6	ug/L		55.56		98	80-120		
Molybdenum	543	ug/L		555.6		98	80-120		
Potassium	5.43	mg/L		5.556		98	80-120		
Selenium	570	ug/L		555.6		103	80-120		
Sodium	5.44	mg/L		5.556		98	80-120		
Thallium	546	ug/L		555.6		98	80-120		
Matrix Spike (B339333-MS1)				Sample: GG03704-01		Prepared: 07/24/23 Analyzed: 08/01/23			
Antimony	551	ug/L		555.6	ND	99	75-125		
Arsenic	568	ug/L		555.6	2.63	102	75-125		
Barium	729	ug/L		555.6	210	94	75-125		
Beryllium	582	ug/L		555.6	ND	105	75-125		
Boron	599	ug/L		555.6	31.7	102	75-125		
Cadmium	571	ug/L		555.6	ND	103	75-125		
Calcium	177	mg/L	Q4	5.556	175	28	75-125		
Chromium	592	ug/L		555.6	ND	106	75-125		
Cobalt	566	ug/L		555.6	1.09	102	75-125		
Lead	549	ug/L		555.6	ND	99	75-125		
Magnesium	92.7	mg/L	Q4	5.556	89.8	52	75-125		
Mercury	56.9	ug/L		55.56	ND	102	75-125		
Molybdenum	572	ug/L		555.6	ND	103	75-125		
Potassium	5.89	mg/L		5.556	0.387	99	75-125		
Selenium	583	ug/L		555.6	ND	105	75-125		
Sodium	19.3	mg/L		5.556	14.2	93	75-125		
Thallium	547	ug/L		555.6	ND	98	75-125		
Matrix Spike Dup (B339333-MSD1)				Sample: GG03704-01		Prepared: 07/24/23 Analyzed: 08/01/23			
Antimony	546	ug/L		555.6	ND	98	75-125	0.9	20
Arsenic	564	ug/L		555.6	2.63	101	75-125	0.8	20
Barium	729	ug/L		555.6	210	94	75-125	0.005	20
Beryllium	588	ug/L		555.6	ND	106	75-125	1	20
Boron	612	ug/L		555.6	31.7	105	75-125	2	20
Cadmium	566	ug/L		555.6	ND	102	75-125	0.9	20
Calcium	177	mg/L	Q4	5.556	175	40	75-125	0.4	20
Chromium	586	ug/L		555.6	ND	105	75-125	1	20
Cobalt	564	ug/L		555.6	1.09	101	75-125	0.4	20
Lead	541	ug/L		555.6	ND	97	75-125	1	20
Magnesium	94.2	mg/L		5.556	89.8	80	75-125	2	20
Mercury	56.9	ug/L		55.56	ND	102	75-125	0.05	20
Molybdenum	565	ug/L		555.6	ND	102	75-125	1	20
Potassium	5.83	mg/L		5.556	0.387	98	75-125	1	20
Selenium	575	ug/L		555.6	ND	103	75-125	1	20
Sodium	19.0	mg/L		5.556	14.2	88	75-125	2	20
Thallium	539	ug/L		555.6	ND	97	75-125	1	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<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		
Sulfate	1.00E9	mg/L	Q4	1.500	124	NR	80-120		
Fluoride	1.86	mg/L		1.500	0.306	103	80-120		
Matrix Spike Dup (B339340-MSD3)		Sample: GG03704-01		Prepared & Analyzed: 07/21/23					
Fluoride	1.85	mg/L		1.500	0.306	103	80-120	0.3	20
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
<u>Batch B339345 - No Prep - SM 2540C</u>									
Blank (B339345-BLK1)		Prepared & Analyzed: 07/24/23							
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B339345-BS1)		Prepared & Analyzed: 07/24/23							
Solids - total dissolved solids (TDS)	980	mg/L		1000		98	84.9-109		
Duplicate (B339345-DUP1)		Sample: GG03353-05		Prepared & Analyzed: 07/24/23					
Solids - total dissolved solids (TDS)	4180	mg/L			4320			3	5
<u>Batch B339448 - No Prep - SM 4500F C 1997</u>									
Matrix Spike (B339448-MS2)		Sample: GG03353-04		Prepared & Analyzed: 07/26/23					
Fluoride	1.27	mg/L		1.000	0.245	102	80-120		
Matrix Spike Dup (B339448-MSD2)		Sample: GG03353-04		Prepared & Analyzed: 07/26/23					
Fluoride	1.26	mg/L		1.000	0.245	102	80-120	0.5	20
<u>Batch B339564 - SW 3015 - EPA 6010B</u>									
Blank (B339564-BLK1)		Prepared: 07/26/23 Analyzed: 08/02/23							
Lithium	< 0.020	mg/L							
LCS (B339564-BS1)		Prepared: 07/26/23 Analyzed: 08/02/23							
Lithium	0.561	mg/L		0.5556		101	80-120		
Matrix Spike (B339564-MS1)		Sample: GG04129-01		Prepared: 07/26/23 Analyzed: 08/02/23					
Lithium	0.570	mg/L		0.5556	0.0349	96	75-125		
Matrix Spike Dup (B339564-MSD1)		Sample: GG04129-01		Prepared: 07/26/23 Analyzed: 08/02/23					
Lithium	0.551	mg/L		0.5556	0.0349	93	75-125	3	20
<u>Batch B339564 - SW 3015 - EPA 6020A</u>									
Blank (B339564-BLK1)		Prepared: 07/26/23 Analyzed: 08/01/23							
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B339564-BLK1)				Prepared: 07/26/23 Analyzed: 08/01/23					
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B339564-BS1)				Prepared: 07/26/23 Analyzed: 08/01/23					
Antimony	544	ug/L		555.6		98	80-120		
Arsenic	566	ug/L		555.6		102	80-120		
Barium	535	ug/L		555.6		96	80-120		
Beryllium	651	ug/L		555.6		117	80-120		
Boron	663	ug/L		555.6		119	80-120		
Cadmium	566	ug/L		555.6		102	80-120		
Calcium	5.11	mg/L		5.556		92	80-120		
Chromium	579	ug/L		555.6		104	80-120		
Cobalt	567	ug/L		555.6		102	80-120		
Lead	552	ug/L		555.6		99	80-120		
Magnesium	5.77	mg/L		5.556		104	80-120		
Mercury	55.2	ug/L		55.56		99	80-120		
Molybdenum	553	ug/L		555.6		100	80-120		
Potassium	5.43	mg/L		5.556		98	80-120		
Selenium	582	ug/L		555.6		105	80-120		
Sodium	5.34	mg/L		5.556		96	80-120		
Thallium	545	ug/L		555.6		98	80-120		
Matrix Spike (B339564-MS1)				Sample: GG04129-01		Prepared: 07/26/23 Analyzed: 08/01/23			
Antimony	540	ug/L		555.6	ND	97	75-125		
Arsenic	575	ug/L		555.6	7.95	102	75-125		
Barium	564	ug/L		555.6	30.9	96	75-125		
Beryllium	597	ug/L		555.6	ND	107	75-125		
Boron	23800	ug/L	Q4	555.6	23500	68	75-125		
Cadmium	559	ug/L		555.6	ND	101	75-125		
Calcium	212	mg/L	Q4	5.556	211	22	75-125		
Chromium	579	ug/L		555.6	2.97	104	75-125		
Cobalt	551	ug/L		555.6	1.76	99	75-125		
Lead	537	ug/L		555.6	2.41	96	75-125		
Magnesium	102	mg/L	Q4	5.556	98.9	53	75-125		
Mercury	57.3	ug/L		55.56	ND	103	75-125		
Molybdenum	594	ug/L		555.6	32.6	101	75-125		
Potassium	12.9	mg/L		5.556	7.69	94	75-125		
Selenium	579	ug/L		555.6	ND	104	75-125		
Sodium	173	mg/L	Q4	5.556	173	6	75-125		
Thallium	527	ug/L		555.6	ND	95	75-125		
Matrix Spike Dup (B339564-MSD1)				Sample: GG04129-01		Prepared: 07/26/23 Analyzed: 08/01/23			



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B339564-MSD1) Sample: GG04129-01 Prepared: 07/26/23 Analyzed: 08/01/23									
Antimony	533	ug/L		555.6	ND	96	75-125	1	20
Arsenic	572	ug/L		555.6	7.95	102	75-125	0.4	20
Barium	561	ug/L		555.6	30.9	95	75-125	0.6	20
Beryllium	591	ug/L		555.6	ND	106	75-125	1	20
Boron	24200	ug/L	Q4	555.6	23500	129	75-125	1	20
Cadmium	558	ug/L		555.6	ND	101	75-125	0.07	20
Calcium	211	mg/L	Q4	5.556	211	NR	75-125	0.6	20
Chromium	577	ug/L		555.6	2.97	103	75-125	0.4	20
Cobalt	554	ug/L		555.6	1.76	99	75-125	0.5	20
Lead	532	ug/L		555.6	2.41	95	75-125	1	20
Magnesium	101	mg/L	Q4	5.556	98.9	42	75-125	0.6	20
Mercury	57.3	ug/L		55.56	ND	103	75-125	0.07	20
Molybdenum	593	ug/L		555.6	32.6	101	75-125	0.1	20
Potassium	12.8	mg/L		5.556	7.69	93	75-125	0.6	20
Selenium	574	ug/L		555.6	ND	103	75-125	0.9	20
Sodium	173	mg/L	Q4	5.556	173	NR	75-125	0.3	20
Thallium	522	ug/L		555.6	ND	94	75-125	0.8	20
Batch B339593 - IC No Prep - EPA 300.0 REV 2.1									
Matrix Spike (B339593-MS1) Sample: GG04129-01 Prepared & Analyzed: 07/25/23									
Chloride	1.0E9	mg/L	Q4	1.500	330	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	391	NR	80-120		
Matrix Spike (B339593-MS2) Sample: GG04129-11 Prepared & Analyzed: 07/25/23									
Chloride	1.0E9	mg/L	Q4	1.500	18	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	150	NR	80-120		
Matrix Spike Dup (B339593-MSD1) Sample: GG04129-01 Prepared & Analyzed: 07/25/23									
Chloride	1.0E9	mg/L	Q4	1.500	330	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	391	NR	80-120	0	20
Matrix Spike Dup (B339593-MSD2) Sample: GG04129-11 Prepared & Analyzed: 07/25/23									
Chloride	1.0E9	mg/L	Q4	1.500	18	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	150	NR	80-120	0	20
Batch B339691 - No Prep - SM 4500F C 1997									
Matrix Spike (B339691-MS1) Sample: GG03704-19 Prepared & Analyzed: 07/27/23									
Fluoride	2.77	mg/L		1.000	1.75	102	80-120		
Matrix Spike Dup (B339691-MSD1) Sample: GG03704-19 Prepared & Analyzed: 07/27/23									
Fluoride	2.79	mg/L		1.000	1.75	104	80-120	0.6	20
Batch B339705 - SW 3015 - EPA 6010B									
Blank (B339705-BLK1) Prepared: 07/27/23 Analyzed: 08/02/23									
Lithium	< 0.020	mg/L							
LCS (B339705-BS1) Prepared: 07/27/23 Analyzed: 08/02/23									
Lithium	0.567	mg/L		0.5556		102	80-120		
Matrix Spike (B339705-MS1) Sample: GG04417-01 Prepared: 07/27/23 Analyzed: 08/02/23									
Lithium	1.00	mg/L	F	0.5556	0.396	109	75-125		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B339705-MSD1)				Sample: GG04417-01		Prepared: 07/27/23 Analyzed: 08/02/23			
Lithium	0.992	mg/L	F	0.5556	0.396	107	75-125	0.9	20
<u>Batch B339705 - SW 3015 - EPA 6020A</u>									
Blank (B339705-BLK1)				Prepared: 07/27/23 Analyzed: 08/07/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B339705-BS1)				Prepared: 07/27/23 Analyzed: 08/07/23					
Antimony	565	ug/L		555.6		102	80-120		
Arsenic	541	ug/L		555.6		97	80-120		
Barium	555	ug/L		555.6		100	80-120		
Beryllium	581	ug/L		555.6		105	80-120		
Boron	526	ug/L		555.6		95	80-120		
Cadmium	509	ug/L		555.6		92	80-120		
Calcium	5.59	mg/L		5.556		101	80-120		
Chromium	565	ug/L		555.6		102	80-120		
Cobalt	594	ug/L		555.6		107	80-120		
Lead	600	ug/L		555.6		108	80-120		
Magnesium	5.81	mg/L		5.556		105	80-120		
Mercury	53.2	ug/L		55.56		96	80-120		
Molybdenum	493	ug/L		555.6		89	80-120		
Potassium	6.05	mg/L		5.556		109	80-120		
Selenium	615	ug/L		555.6		111	80-120		
Sodium	5.69	mg/L		5.556		102	80-120		
Thallium	614	ug/L		555.6		111	80-120		
Matrix Spike (B339705-MS1)				Sample: GG04417-01		Prepared: 07/27/23 Analyzed: 08/07/23			
Antimony	69.1	ug/L	Q1	555.6	0.817	12	75-125		
Barium	1980	ug/L		555.6	1320	118	75-125		
Beryllium	445	ug/L		555.6	16.0	77	75-125		
Boron	826	ug/L	Q1	555.6	472	64	75-125		
Cadmium	526	ug/L		555.6	9.18	93	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									
Calcium	290	mg/L	Q4	5.556	289	18	75-125		
Chromium	993	ug/L		555.6	440	99	75-125		
Cobalt	828	ug/L		555.6	236	107	75-125		
Lead	914	ug/L		555.6	316	108	75-125		
Magnesium	189	mg/L	Q4	5.556	179	173	75-125		
Mercury	53.0	ug/L		55.56	0.828	94	75-125		
Molybdenum	369	ug/L	Q1	555.6	6.34	65	75-125		
Potassium	30.8	mg/L		5.556	24.5	113	75-125		
Selenium	304	ug/L	Q1	555.6	14.2	52	75-125		
Sodium	10.7	mg/L		5.556	5.57	93	75-125		
Thallium	543	ug/L		555.6	3.41	97	75-125		
Matrix Spike Dup (B339705-MSD1) Sample: GG04417-01 Prepared: 07/27/23 Analyzed: 08/07/23									
Antimony	64.8	ug/L	Q2	555.6	0.817	12	75-125	6	20
Barium	1980	ug/L		555.6	1320	119	75-125	0.3	20
Beryllium	443	ug/L		555.6	16.0	77	75-125	0.4	20
Boron	770	ug/L	Q2	555.6	472	54	75-125	7	20
Cadmium	524	ug/L		555.6	9.18	93	75-125	0.3	20
Calcium	285	mg/L	Q4	5.556	289	NR	75-125	2	20
Chromium	1000	ug/L		555.6	440	101	75-125	0.7	20
Cobalt	843	ug/L		555.6	236	109	75-125	2	20
Lead	915	ug/L		555.6	316	108	75-125	0.1	20
Magnesium	191	mg/L	Q4	5.556	179	205	75-125	0.9	20
Mercury	52.9	ug/L		55.56	0.828	94	75-125	0.04	20
Molybdenum	361	ug/L	Q2	555.6	6.34	64	75-125	2	20
Potassium	31.3	mg/L		5.556	24.5	123	75-125	2	20
Selenium	336	ug/L	Q2	555.6	14.2	58	75-125	10	20
Sodium	10.6	mg/L		5.556	5.57	90	75-125	1	20
Thallium	537	ug/L		555.6	3.41	96	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									
Chloride	4.5	mg/L		1.500	2.8	115	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	347	NR	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									



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B339734-DUP2) Sample: GG03704-07 Prepared & Analyzed: 07/27/23									
Solids - total dissolved solids (TDS)	735	mg/L	M		1180			47	5
Batch B339834 - No Prep - SM 2540C									
Blank (B339834-BLK1) Prepared & Analyzed: 07/28/23									
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B339834-BS1) Prepared & Analyzed: 07/28/23									
Solids - total dissolved solids (TDS)	963	mg/L		1000		96	84.9-109		
Duplicate (B339834-DUP1) Sample: GG04129-01 Prepared & Analyzed: 07/28/23									
Solids - total dissolved solids (TDS)	1760	mg/L			1840			4	5
Duplicate (B339834-DUP2) Sample: GG04129-11 Prepared & Analyzed: 07/28/23									
Solids - total dissolved solids (TDS)	630	mg/L			635			0.8	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									
Sulfate	1.00E9	mg/L	Q4	1.500	463	NR	80-120		
Fluoride	1.74	mg/L		1.500	0.257	99	80-120		
Chloride	4.5	mg/L		1.500	3.3	85	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									
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
Batch B339942 - SW 3015 - EPA 6010B									
Blank (B339942-BLK1) Prepared: 07/31/23 Analyzed: 08/02/23									
Lithium	< 0.020	mg/L							
LCS (B339942-BS1) Prepared: 07/31/23 Analyzed: 08/02/23									
Lithium	0.554	mg/L		0.5556		100	80-120		
Matrix Spike (B339942-MS1) Sample: GG04630-01 Prepared: 07/31/23 Analyzed: 08/02/23									
Lithium	0.551	mg/L		0.5556	0.0265	94	75-125		
Matrix Spike Dup (B339942-MSD1) Sample: GG04630-01 Prepared: 07/31/23 Analyzed: 08/02/23									
Lithium	0.534	mg/L		0.5556	0.0265	91	75-125	3	20
Batch B339942 - SW 3015 - EPA 6020A									



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B339942-BLK1)				Prepared: 07/31/23 Analyzed: 08/07/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B339942-BS1)				Prepared: 07/31/23 Analyzed: 08/07/23					
Antimony	550	ug/L		555.6		99	80-120		
Arsenic	548	ug/L		555.6		99	80-120		
Barium	545	ug/L		555.6		98	80-120		
Beryllium	593	ug/L		555.6		107	80-120		
Boron	514	ug/L		555.6		93	80-120		
Cadmium	501	ug/L		555.6		90	80-120		
Calcium	5.54	mg/L		5.556		100	80-120		
Chromium	562	ug/L		555.6		101	80-120		
Cobalt	581	ug/L		555.6		105	80-120		
Lead	587	ug/L		555.6		106	80-120		
Magnesium	5.72	mg/L		5.556		103	80-120		
Mercury	52.1	ug/L		55.56		94	80-120		
Molybdenum	498	ug/L		555.6		90	80-120		
Potassium	5.84	mg/L		5.556		105	80-120		
Selenium	599	ug/L		555.6		108	80-120		
Sodium	5.76	mg/L		5.556		104	80-120		
Thallium	605	ug/L		555.6		109	80-120		
Matrix Spike (B339942-MS1)				Sample: GG04630-01 Prepared: 07/31/23 Analyzed: 08/07/23					
Antimony	560	ug/L		555.6	ND	101	75-125		
Arsenic	565	ug/L		555.6	8.27	100	75-125		
Barium	572	ug/L		555.6	33.2	97	75-125		
Beryllium	584	ug/L		555.6	ND	105	75-125		
Boron	2340	ug/L		555.6	1780	101	75-125		
Cadmium	494	ug/L		555.6	ND	89	75-125		
Calcium	125	mg/L	Q4	5.556	122	61	75-125		
Chromium	554	ug/L		555.6	ND	100	75-125		
Cobalt	566	ug/L		555.6	ND	102	75-125		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B339942-MS1) Sample: GG04630-01 Prepared: 07/31/23 Analyzed: 08/07/23									
Lead	569	ug/L	Q4	555.6	0.778	102	75-125		
Magnesium	66.0	mg/L		5.556	61.5	82	75-125		
Mercury	54.3	ug/L		55.56	0.194	97	75-125		
Molybdenum	516	ug/L		555.6	7.37	92	75-125		
Potassium	10.9	mg/L		5.556	5.23	101	75-125		
Selenium	598	ug/L		555.6	ND	108	75-125		
Sodium	265	mg/L		5.556	265	7	75-125		
Thallium	590	ug/L		555.6	ND	106	75-125		
Matrix Spike Dup (B339942-MSD1) Sample: GG04630-01 Prepared: 07/31/23 Analyzed: 08/07/23									
Antimony	552	ug/L	Q4	555.6	ND	99	75-125	1	20
Arsenic	562	ug/L		555.6	8.27	100	75-125	0.7	20
Barium	569	ug/L		555.6	33.2	96	75-125	0.6	20
Beryllium	576	ug/L		555.6	ND	104	75-125	1	20
Boron	2380	ug/L		555.6	1780	107	75-125	1	20
Cadmium	491	ug/L		555.6	ND	88	75-125	0.5	20
Calcium	124	mg/L		5.556	122	35	75-125	1	20
Chromium	550	ug/L		555.6	ND	99	75-125	0.8	20
Cobalt	566	ug/L		555.6	ND	102	75-125	0.07	20
Lead	561	ug/L		555.6	0.778	101	75-125	1	20
Magnesium	66.0	mg/L		5.556	61.5	81	75-125	0.09	20
Mercury	54.1	ug/L		55.56	0.194	97	75-125	0.4	20
Molybdenum	511	ug/L		555.6	7.37	91	75-125	0.9	20
Potassium	10.8	mg/L		5.556	5.23	101	75-125	0.3	20
Selenium	592	ug/L		555.6	ND	106	75-125	1	20
Sodium	262	mg/L	Q4	5.556	265	NR	75-125	1	20
Thallium	581	ug/L		555.6	ND	105	75-125	2	20
Batch B339993 - No Prep - SM 2320B 1997									
Duplicate (B339993-DUP1) Sample: GG03353-01 Prepared & Analyzed: 07/31/23									
Alkalinity - bicarbonate as CaCO3	512	mg/L			500			2	10
Batch B340157 - SW 3015 - EPA 6010B									
Blank (B340157-BLK1) Prepared: 08/02/23 Analyzed: 08/09/23									
Lithium	< 0.020	mg/L							
LCS (B340157-BS1) Prepared: 08/02/23 Analyzed: 08/09/23									
Lithium	0.543	mg/L		0.5556		98	80-120		
Matrix Spike (B340157-MS1) Sample: GG04978-01 Prepared: 08/02/23 Analyzed: 08/09/23									
Lithium	0.537	mg/L		0.5556	ND	97	75-125		
Matrix Spike Dup (B340157-MSD1) Sample: GG04978-01 Prepared: 08/02/23 Analyzed: 08/09/23									
Lithium	0.538	mg/L		0.5556	ND	97	75-125	0.2	20
Batch B340157 - SW 3015 - EPA 6020A									
Blank (B340157-BLK1) Prepared: 08/02/23 Analyzed: 08/10/23									
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B340157-BLK1)				Prepared: 08/02/23 Analyzed: 08/10/23					
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B340157-BS1)				Prepared: 08/02/23 Analyzed: 08/10/23					
Antimony	645	ug/L		555.6		116	80-120		
Arsenic	550	ug/L		555.6		99	80-120		
Barium	656	ug/L		555.6		118	80-120		
Beryllium	648	ug/L		555.6		117	80-120		
Boron	619	ug/L		555.6		111	80-120		
Cadmium	563	ug/L		555.6		101	80-120		
Calcium	5.74	mg/L		5.556		103	80-120		
Chromium	541	ug/L		555.6		97	80-120		
Cobalt	551	ug/L		555.6		99	80-120		
Lead	536	ug/L		555.6		96	80-120		
Magnesium	5.58	mg/L		5.556		100	80-120		
Mercury	54.5	ug/L		55.56		98	80-120		
Molybdenum	545	ug/L		555.6		98	80-120		
Potassium	5.58	mg/L		5.556		101	80-120		
Selenium	583	ug/L		555.6		105	80-120		
Sodium	5.65	mg/L		5.556		102	80-120		
Thallium	546	ug/L		555.6		98	80-120		
Matrix Spike (B340157-MS1)				Sample: GG04978-01		Prepared: 08/02/23 Analyzed: 08/10/23			
Antimony	559	ug/L		555.6	2.14	100	75-125		
Arsenic	560	ug/L		555.6	10.2	99	75-125		
Barium	721	ug/L		555.6	174	99	75-125		
Beryllium	526	ug/L		555.6	ND	95	75-125		
Boron	605	ug/L		555.6	91.6	92	75-125		
Cadmium	560	ug/L		555.6	ND	101	75-125		
Calcium	305	mg/L	Q4	5.556	303	26	75-125		
Chromium	539	ug/L		555.6	ND	97	75-125		
Cobalt	533	ug/L		555.6	0.867	96	75-125		
Lead	524	ug/L		555.6	1.49	94	75-125		
Magnesium	118	mg/L	Q4	5.556	115	52	75-125		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B340157-MS1) Sample: GG04978-01 Prepared: 08/02/23 Analyzed: 08/11/23									
Mercury	56.0	ug/L		55.56	0.183	100	75-125		
Molybdenum	557	ug/L		555.6	1.94	100	75-125		
Potassium	7.42	mg/L		5.556	1.95	98	75-125		
Selenium	582	ug/L		555.6	ND	105	75-125		
Sodium	18.9	mg/L		5.556	13.7	94	75-125		
Thallium	537	ug/L		555.6	ND	97	75-125		
Matrix Spike Dup (B340157-MSD1) Sample: GG04978-01 Prepared: 08/02/23 Analyzed: 08/10/23									
Antimony	550	ug/L		555.6	2.14	99	75-125	2	20
Arsenic	557	ug/L		555.6	10.2	98	75-125	0.6	20
Barium	717	ug/L		555.6	174	98	75-125	0.7	20
Beryllium	530	ug/L		555.6	ND	95	75-125	0.9	20
Boron	613	ug/L		555.6	91.6	94	75-125	1	20
Cadmium	556	ug/L		555.6	ND	100	75-125	0.7	20
Calcium	305	mg/L	Q4	5.556	303	32	75-125	0.1	20
Chromium	538	ug/L		555.6	ND	97	75-125	0.2	20
Cobalt	530	ug/L		555.6	0.867	95	75-125	0.5	20
Lead	521	ug/L		555.6	1.49	94	75-125	0.6	20
Magnesium	118	mg/L	Q4	5.556	115	50	75-125	0.1	20
Mercury	55.6	ug/L		55.56	0.183	100	75-125	0.7	20
Molybdenum	558	ug/L		555.6	1.94	100	75-125	0.04	20
Potassium	7.37	mg/L		5.556	1.95	97	75-125	0.7	20
Selenium	577	ug/L		555.6	ND	104	75-125	0.9	20
Sodium	18.8	mg/L		5.556	13.7	93	75-125	0.3	20
Thallium	534	ug/L		555.6	ND	96	75-125	0.6	20
Batch B340192 - No Prep - SM 2540C									
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
Batch B340193 - No Prep - SM 2320B 1997									
Duplicate (B340193-DUP1) Sample: GG03704-01 Prepared & Analyzed: 08/02/23									
Alkalinity - bicarbonate as CaCO ₃	675	mg/L			725			7	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B340193-DUP2) Sample: GG03704-06 Prepared & Analyzed: 08/02/23									
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	538	mg/L			500			7	10
Batch B340448 - No Prep - SM 2320B 1997									
Duplicate (B340448-DUP1) Sample: GG04129-01 Prepared & Analyzed: 08/04/23									
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	525	mg/L			525			0	10



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B340448-DUP2) Sample: GG04129-11 Prepared & Analyzed: 08/04/23									
Alkalinity - bicarbonate as CaCO ₃	400	mg/L			388			3	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B340448-DUP3) Sample: GG04129-14 Prepared & Analyzed: 08/04/23									
Alkalinity - bicarbonate as CaCO ₃	500	mg/L			488			3	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B340448-DUP4) Sample: GG04417-01 Prepared & Analyzed: 08/04/23									
Alkalinity - bicarbonate as CaCO ₃	400	mg/L			362			10	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Batch B340643 - No Prep - EPA 350.1 REV2									
Matrix Spike (B340643-MS1) Sample: GG04129-10 Prepared & Analyzed: 08/08/23									
Ammonia-N	2.01	mg/L		2.000	ND	100	90-110		
Matrix Spike Dup (B340643-MSD1) Sample: GG04129-10 Prepared & Analyzed: 08/08/23									
Ammonia-N	2.03	mg/L		2.000	ND	102	90-110	1	20
Batch B340811 - No Prep - SM 2320B 1997									
Duplicate (B340811-DUP1) Sample: GG04978-01 Prepared & Analyzed: 08/09/23									
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	825	mg/L			800			3	10
Batch B340896 - IC No Prep - EPA 300.0 REV 2.1									
Matrix Spike (B340896-MS2) Sample: GG04978-11 Prepared & Analyzed: 08/10/23									
Chloride	< 1.0	mg/L	Q4	3.000	12	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	3.000	183	NR	80-120		
Matrix Spike Dup (B340896-MSD2) Sample: GG04978-11 Prepared & Analyzed: 08/10/23									
Sulfate	1.00E9	mg/L	Q4	3.000	183	NR	80-120	0	20
Chloride	< 1.0	mg/L	Q4	3.000	12	NR	80-120		20



NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

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

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

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

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

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

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

USEPA DMR-QA Program

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

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

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

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

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

Qualifiers

- F Internal standard area failed to meet the required acceptance criteria in repeat instrumental analyses. Results should be interpreted as estimated concentrations.
- M Analyte failed to meet the required acceptance criteria for duplicate analysis.
- Q1 Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q2 Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q3 Matrix Spike/Matrix Spike Duplicate both failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

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 Num	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	35 7.17 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	^{11.17} 6.96	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
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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? (Serial No. & Logge)	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L)		
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)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L)		
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-OM07	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/	7/19/23	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 down-loaded?	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 **BA06**

Purge Method: LOW FLOW

Date: 7/24/23 Start Time: 14:21 Finish/Sample Time: 15:34

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

Depth to Water From MP: 25.04 ft Total Purge Volume: 1.3 Gal / L / mL

Water Column Length: ft

Well Water Volume: Gal / L

Total Drawdown: 5.94 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	14:34	26.78	100	6.56	3,140	18.78	-28	2.73	5.5
2	14:35	26.85	100	6.53	3,110	18.81	-34	2.61	4.8
3	14:36	27.10	100	6.54	3,140	18.70	-40	2.50	5.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - Over Range mg/L

Final DTW: 30.98 ft

Comments NA

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM01

Purge Method: portable pump with DeScaled tubing

Date: 7/20/2023 Start Time: 1019 Finish/Sample Time: 1235

Well Depth (Bottom) From MP: ~~27.79~~ 27.83 ft Min. Purge Volume: - Gal / L / mL

Depth to Water From MP: 12.08 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 15.75 ft

Well Water Volume: 0.53 Gal (L) Total Drawdown: 11.56 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	1037	16.60	100	6.35	3514	19.88	-2.3	1.57	116.02
2	1039	16.64	100	6.35	3514	20.04	7.0	1.43	96.91
3	1041	16.66	100	6.35	3520	20.06	7.4	1.40	89.62
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	☒	☐
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)
323	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
121	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
121	General (P, 500mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
121	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
121	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
121	General (P,500mL) 1000mL
323	TOC (A,V 40mL, H2SO4)

Ferrous Iron - 2.080 mg/L

Final DTW: 23.64 ft

Comments: Field dup filled here Final Bottle (P/1000mL, D=5)
fill half way bc. to pump not being able to pull up enough water
we to poo recharge

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM01

Purge Method: Portable pump

Date: 7/25/23 Start Time: 1208 Finish/Sample Time: 1241

Well Depth (Bottom) From MP: 30 ~~27.79~~ 27.83 ft Min. Purge Volume: 1000 Gal / L / 1 mL

Depth to Water From MP: 12.25 ft Total Purge Volume: 1500 Gal / L / 1 mL

Water Column Length: 15.58 ft

Well Water Volume: 9.44 Gal / 1 L Total Drawdown: 7.65 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1220	16.68	100	6.41	3153.2	25.24	30.9	0.93	332.68
2	1221	16.85	100	6.40	3130.1	25.32	31.9	0.91	331.46
3	1222	17.08	100	6.40	3131.5	25.37	32.8	0.89	343.58
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Aquarroll 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)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1+1 dup	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1+1 dup	General (P,500mL)
	TOC (A,V 40mL, H2SO4)

Ferrous Iron - mg/L

Final DTW: 19.90 ft

Comments Resamples

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR02

Purge Method: portable pump with

dedicated tubing

Date: 7/20/2022 Start Time: 1242

Finish/Sample Time: 1400

Well Depth (Bottom) From MP: 22.41 ft 22.28

Min. Purge Volume: — Gal / L / mL

Depth to Water From MP: 6.19 ft

Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 16.09 ft

Well Water Volume: 0.73 Gal (L)

Total Drawdown: 0.01 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	1257	6.31	100	6.63	1980	21.64	-37.2	1.32	4550.0
2	1259	6.31	100	6.62	1971	21.74	-32.5	1.20	3930.8
3	1301	6.31	100	6.62	1972	21.80	-34.2	1.30	4351.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: A7600

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)
<u>3</u>	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
<u>1</u>	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
<u>1</u>	General (P, 500 mL) <u>1000 mL</u>
	Ammonia (P, 250mL, H2SO4)
<u>1</u>	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 2.961 mg/L

Final DTW: 6.20 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR03D

Purge Method: Perforator Pump *with Defecator*

Date: 7/20/2023 Start Time: 7:10 Finish/Sample Time: 1:30

Well Depth (Bottom) From MP: 77.68 ft *APP 7/20/23* Min. Purge Volume: 19.80 Gal (L) mL

Depth to Water From MP: 44.94 ft Total Purge Volume: 1000 Gal (L) mL *JR*

Water Column Length: 32.74 ft

Well Water Volume: 14.80 Gal (L) Total Drawdown: 0.43 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	1046	45.25	400	7.21	3600	15.59	-19	3.59	646
2	1055	45.31	400	7.03	3880	15.57	-17	3.45	>1000
3	1107	45.35	400	6.95	4020	15.51	-14	3.40	>1000
4		45.35							
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	☒	☐
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)
3	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) <u>1000mL</u>
	Ammonia (P,250 mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 5.539 mg/L

Final DTW: 45.37 ft

Comments 7/20/23 attempted to sample, but pump wasn't purging

Sampler's Signature: [Signature]

APP 7/20/23

Duck Creek

WELL/SAMPLE POINT OR04D

Purge Method: Portable pump

Date: 7/25/23 Start Time: 1050 Finish/Sample Time: 1201

Well Depth (Bottom) From MP: ³⁰~~67.98~~ ft 68.01 Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 21.21 ft Total Purge Volume: 2500 Gal / L (mL)

Water Column Length: 46.80 ft
Well Water Volume: 28.34 Gal (L) Total Drawdown: 0.01 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	1105	21.22	100	6.75	5239.9	21.32	-28.4	0.43	2245.7
2	1106	21.22	100	6.74	5223.3	21.34	-28.8	0.43	2134.4
3	1107	21.22	100	6.73	5279.8	21.29	-30.2	0.43	2150.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquaflow 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 5.838 mg/L

Final DTW: 21.22 ft

Comments

Sampler's Signature: John D.W.

Duck Creek

WELL/SAMPLE POINT OM04S

Purge Method: Portable pump

Date: 7/25/23 Start Time: 1300 Finish/Sample Time: 1424

Well Depth (Bottom) From MP: 35.88 ft ³⁵ Min. Purge Volume: 1000 Gal / L / mL

Depth to Water From MP: 20.00 ft Total Purge Volume: 1400 Gal / L / mL

Water Column Length: 15.88 ft

Well Water Volume: 962 Gal / L / mL Total Drawdown: 9.15 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1312	26.01	100	6.77	1207.2	21.16	-4.9	0.96	120.22
2	1313	26.05	100	6.76	1208.8	21.21	-2.8	0.97	122.57
3	1314	26.10	100	6.74	1208.0	21.25	-1.9	0.96	121.54
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aqua roll 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/secured	/	
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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 1.742 mg/L

Final DTW: 29.15 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR06A

Purge Method: Bailer

Date: 7/26/23 Start Time: 1202 Finish/Sample Time: 1233

Well Depth (Bottom) From MP: 25.65 ft Min. Purge Volume: 22 Gal (10) mL

Depth to Water From MP: 14.07 ft Total Purge Volume: 22 Gal (10) mL

Water Column Length: 11.58 ft

Well Water Volume: 7.01 Gal (10) Total Drawdown: 0.01 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	1212	14.07	-	6.78	2637.6	20.57	-17.7	2.28	547.07
2	1214	14.07	-	6.82	3082.3	18.12	-31.5	2.41	355.65
3	1217	14.07	-	6.81	3301.0	18.40	-32.8	2.45	382.18
4									
5						69.12			
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250 mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 6.081 mg/L

Final DTW: 14.08 ft

Comments Possible pump doesn't pump water all the way up. Used bailer.

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR06A

Purge Method: bailer

Date: 8/10/23 Start Time: 1208 Finish/Sample Time: 1241

Well Depth (Bottom) From MP: 25.65 ft Min. Purge Volume: 7 Gal / L / mL

Depth to Water From MP: 14.36 ft Total Purge Volume: 21 Gal / L / mL

Water Column Length: 11.29 ft

Well Water Volume: 6.83 Gal / L Total Drawdown: 0.21 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1216	14.40	7bails	6.77	3090	15.11	-21	4.70	160
2	1224	14.59	7bails	6.80	3080	14.99	-25	4.88	167
3	1232	14.64	7bails	6.84	3080	14.89	-31	4.67	129
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
1	1000 ml plastic

Filtered	
Qty	Bottles
1	1000 ml plastic

Final DTW: 14.57 ft

Comments Very muddy couldn't get submersible to well
had to bail

Sampler's Signature: Joseph R. Ratz

Duck Creek

WELL/SAMPLE POINT OM07

Purge Method: Portable pump

Date: 7/26/23 Start Time: 1045 Finish/Sample Time: 1152

Well Depth (Bottom) From MP: 30 ~~20.02~~ ft 29.97 Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 12.41 ft Total Purge Volume: 1300 Gal / L (mL)

Water Column Length: 17.56 ft

Well Water Volume: 10.63 Gal / L Total Drawdown: 0.24 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	1057	12.60	100	6.90	1085.1	21.70	-21.0	1.45	242.82
2	1058	12.60	100	6.89	1101.6	21.75	-21.8	1.41	288.98
3	1059	12.60	100	6.88	1100.8	21.80	-22.2	1.39	318.92
4									
5						71.24			
Stabilization	NA	NA	NA	±0.2	±3%	±0.2	±20	±10% or 0.2	NA

Field Meter: Aqua-trail 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 1.566 mg/L

Final DTW: 12.65 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT **OM07**

Purge Method: submersible

Date: 8/10/23 Start Time: 1123 Finish/Sample Time: 1204

Well Depth (Bottom) From MP: 29.92 ft Min. Purge Volume: 1.0 Gal / L / mL

Depth to Water From MP: 12.55 ft Total Purge Volume: 1.3 Gal / L / mL

Water Column Length: 17.37 ft

Well Water Volume: 10.51 Gal L Total Drawdown: 0.14 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	1139	13.00	100.66	6.58	1260	17.69	-35	2.41	27.7
2	1140	12.99	100	6.58	1260	17.70	-35	2.38	20.4
3	1141	12.99	100	6.57	1260	17.69	-35	2.35	9.0
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		
Casing locked/secure		
Well cap fits securely.		
Good seal/drainage		
Well has weep holes		

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
1	1000 ml plastic

Filtered	
Qty	Bottles
1	1000 ml plastic

Final DTW: 12.69 ft

Comments

Sampler's Signature:

Joseph P. Reed

Duck Creek

WELL/SAMPLE POINT OR11

Purge Method: Bailer

Date: 7/26/23 Start Time: 0940 Finish/Sample Time: 1010

Well Depth (Bottom) From MP: 30 7/26/23 ~~49.85~~ ft 41.63 Min. Purge Volume: 18 Gal (L) mL

Depth to Water From MP: 31.84 ft Total Purge Volume: 18 Gal (L) mL

Water Column Length: 9.79 ft

Well Water Volume: 5.93 Gal (L) Total Drawdown: 0.07 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	0948	31.89	—	7.04	1089.0	16.53	13.4	2.07	353.59
2	0953	31.90	—	7.01	1204.0	16.08	2.1	2.26	426.52
3	0956	31.89	—	7.02	1213.8	15.21	2.8	2.90	533.80
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field-Meter: Aqua-tronics 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 0.871 mg/L

Final DTW: 31.91 ft

Comments Portable pump wouldn't pump water all the way up. Used bailer

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR11

Purge Method: Submersible

Date: 8/10/23 Start Time: 1246 Finish/Sample Time: 1319

Well Depth (Bottom) From MP: 43.85 ft Min. Purge Volume: 1.0 Gal / L / mL

Depth to Water From MP: 31.27 ft Total Purge Volume: 1.9 Gal / L / mL

Water Column Length: 12.58 ft

Well Water Volume: 7.61 Gal (L) Total Drawdown: 0.04 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1236	31.31	100	7.42	1180	14.96	7	9.13	151
2	1257	31.31	100	7.35	1210	14.80	-10	8.99	164
3	1258	31.31	100	7.26	126 1200	14.71	-17	9.01	129
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
1	1000 ml plastic

Filtered	
Qty	Bottles
1	1000 ml plastic

Final DTW: 31.31 ft

Comments

Sampler's Signature:

Joseph R. Raul

Duck Creek

WELL/SAMPLE POINT OM12

Purge Method: Bailer

Date: 7/27-23 Start Time: 15:18 Finish/Sample Time: 16:02

Well Depth (Bottom) From MP: 43.19 ft Min. Purge Volume: 15 Gal / 1 / mL

Depth to Water From MP: 17.31 ft Total Purge Volume: 45 Gal / 1 / mL

Water Column Length: 25.88 ft

Well Water Volume: 4.14 Gal / L Total Drawdown: 0.24 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	15:22	20.15		7.30	1856.5	19.89	-101.8	2.41	95.70
2	15:35	20.40		7.47	1903.1	19.69	-87.3	2.58	95.82
3	15:43	20.35		7.28	1937.0	19.90	-87.6	2.38	100.34
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Aquatro 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P. 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P,250mL H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - over range mg/L

Final DTW: 17.55 ft

Comments NA

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR13D

Purge Method: Submersible pump

Date: 7/20/23

Start Time: 11:45

Finish/Sample Time: 13:15

Well Depth (Bottom) From MP: 50.23 ft

Min. Purge Volume: 1.0 Gal (L) mL

Depth to Water From MP: 13.35 ft

Total Purge Volume: 1.3 Gal (L) mL

Water Column Length: 36.88 ft

Well Water Volume: 22.30 Gal (L)

Total Drawdown: 0.0 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1206		100	6.65	1870	24.90	-68	0.65	>1000
2	1207		100	6.65	1850	24.85	-69	0.52	>1000
3	1208	13.37	100	6.65	1850	24.85	-69	0.49	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☐ Mod. ☒ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

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

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

Ferrous Iron - 2.737 mg/L

Final DTW: 13.35 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR13D

Purge Method: Submersible

Date: 8/10/23 Start Time: 1325 Finish/Sample Time: 1358

Well Depth (Bottom) From MP: 50.23 ft Min. Purge Volume: 1.0 Gal / L / mL

Depth to Water From MP: 13.49 ft Total Purge Volume: 1.3 Gal / L / mL

Water Column Length: 36.74 ft

Well Water Volume: 22.22 Gal / L Total Drawdown: 0.0 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1336	13.49	100	6.91	1780	15.99	-50	1.11	20.8
2	1337	13.49	100	6.89	1790	15.86	-50	0.94	21.1
3	1338	13.49	100	6.82	1810	15.70	-50	0.76	14.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
1	1000 ml plastic

Filtered	
Qty	Bottles
1	1000 ml plastic

Final DTW: 13.49 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR13S

Purge Method: B Submersible pump

Date: 7/20/23 Start Time: 10:00

Finish/Sample Time: 11:42

Well Depth (Bottom) From MP: 29.55 ft

Min. Purge Volume: 1.0 Gal 1 mL

Depth to Water From MP: 13.52 ft

Total Purge Volume: 1.3 Gal / L / mL

Water Column Length: 16.03 ft

Well Water Volume: 9.70 Gal 1

Total Drawdown: .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	1112	13.55	100	6.45	2110	20.99	-23	2.35	541
2	1113	13.55	100	6.47	2110	20.99	-27	2.20	528
3	1114	13.55	100	6.49	2110	20.99	-33	2.11	530
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance: JR

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) <u>1L</u>
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L HNO3)

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

Ferrous Iron - 6.320 mg/L

Final DTW: 13.55 ft

Comments

Sampler's Signature: Joseph Rad

Duck Creek

WELL/SAMPLE POINT OR13S

Purge Method: Submersible

Date: 8/10/23

Start Time: 1405

Finish/Sample Time: 1430

Well Depth (Bottom) From MP: 29.55 ft

Min. Purge Volume: 1.0 Gal / L / mL

Depth to Water From MP: 13.35 ft

Total Purge Volume: 1.3 Gal / L / mL

Water Column Length: 16.40 ft

Well Water Volume: 9.92 Gal / L

Total Drawdown: 0.20 ft

Reading (Units)	Time	Depth ft	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1416	13.34	100	7.10	1990	15.13	-57	6.43	122
2	1417	13.34	100	7.08	2010	15.09	-56	6.30	130
3	1418	13.34	100	6.95	2020	14.99	-56	6.15	144
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
1	1000 ml plastic

Filtered	
Qty	Bottles
1	1000 ml plastic

Final DTW: 13.35 ft

Comments

Sampler's Signature: Joseph R Reed

Duck Creek

WELL/SAMPLE POINT OR14D

Purge Method: Portable pump

Date: 7/24/23 Start Time: 1428 Finish/Sample Time: 1531

Well Depth (Bottom) From MP: 48.78 ft Min. Purge Volume: 1.0 Gal (D) / mL

Depth to Water From MP: 10.52 ft Total Purge Volume: 2.2 Gal (L) / mL

Water Column Length: 38.26 ft

Well Water Volume: 23.17 Gal (D) Total Drawdown: 0.23 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1442	10.65	100	6.74	2620.3	19.30	-92.0	0.33	3747.2
2	1443	10.65	100	6.73	2626.3	19.34	-92.0	0.35	3314.2
3	1445	10.66	100	6.72	2624.3	19.38	-96.3	0.35	2923.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aqua roll 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 3.28 mg/L

Final DTW: 10.75 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM16

Purge Method: Portable pump

Date: 7/24/23 Start Time: 1130 Finish/Sample Time: 1245

Well Depth (Bottom) From MP: 43.60 ft Min. Purge Volume: 1000 Gal / L / ml

Depth to Water From MP: 24.50 ft Total Purge Volume: 2.1 Gal l / ml

Water Column Length: 19.10 ft

Well Water Volume: 11.57 Gal l Total Drawdown: 4.03 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	1147	28.10	100	6.52	3965.2	17.79	-2.2	0.40	1797.1
2	1148	28.13	100	6.51	3986.5	17.83	-0.4	0.39	1414.1
3	1149	28.10	100	6.50	3996.2	17.89	0.5	0.45	1093.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquaroll 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 1.509 mg/L

Final DTW: 28.53 ft

Comments Loose mud

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM17

Purge Method: Portable Pump

Date: 7/27/23 Start Time: 1335 Finish/Sample Time: 1515 7/25/23

Well Depth (Bottom) From MP: 17.35 ft

Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 13.66 ft

Total Purge Volume: 1400 Gal / L (mL)

Water Column Length: 3.69 ft

Well Water Volume: 2.23 Gal / L

Total Drawdown: 3.69 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	1349	15.10	100	6.76	1093.2	19.53	-30.9	0.51	2123.8
2	1350	15.10	100	6.76	1089.2	19.49	-29.5	0.50	1913.9
3	1351	15.10	100	6.76	1091.8	19.45	-28.8	0.49	1843.9
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquasill 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
2	TOC (A,V, 40mL, H2SO4)

Ferrous Iron - 0.846 mg/L

Final DTW: 17.35 ft

Comments DTW during reads was top of pump. Not enough water to pump through portable pump

7/25/23 1500 DTW = 15.11 Sampler's Signature: [Signature]

sampled with bailer due to low water volume

Well ran dry, very slow recharge

Duck Creek

WELL/SAMPLE POINT **OR19**

Purge Method: Submersible pump

Date: 7/31/23 Start Time: 1210 Finish/Sample Time: 1327

Well Depth (Bottom) From MP: 55.03 ft Min. Purge Volume: 1.0 Gal / L / mL

Depth to Water From MP: 25.99 ft Total Purge Volume: 1.3 Gal / L / mL

Water Column Length: 29.04 ft

Well Water Volume: 17.56 Gal / L Total Drawdown: 0.10 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	1226	26.09	100	6.73	2720	20.84	-41	1.71	>1000
2	1227	26.09	100	6.70	2710	20.80	-40	1.60	>1000
3	1228	26.09	100	6.69	2710	20.81	-41	1.51	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☐ Mod. ☒ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
2	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	TOC (A.V, 40mL, H2SO4)

Ferrous Iron - Orange mg/L

Final DTW: 26.09 ft

Comments

Sampler's Signature: Joseph R. Raul

Duck Creek

WELL/SAMPLE POINT OR20

Purge Method: Portable pump

Date: 7/24/23 Start Time: 1000 Finish/Sample Time: 1110

Well Depth (Bottom) From MP: 57.55 ft Min. Purge Volume: 1.0 Gal / (1) / mL

Depth to Water From MP: 21.95 ft Total Purge Volume: 2.0 Gal / (1) / mL

Water Column Length: 35.60 ft

Well Water Volume: 21.56 Gal (1) Total Drawdown: 0.06 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	1015	22.00	100	6.85	2511.0	18.06	-42.1	0.30	6217.7
2	1016	22.00	100	6.85	2511.3	18.03	-42.2	0.33	5561.5
3	1017	22.01	100	6.85	2509.3	18.11	-42.2	0.34	4248.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatrol 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - mg/L

Final DTW: 22.01 ft

Comments Soluble Iron = 2.271 ppm

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT **OM21**

Purge Method: portable pump well

Date: 7/14/2023 Start Time: 1337

Finish/Sample Time: 1505

Well Depth (Bottom) From MP: 60.55 ft 60.57

Min. Purge Volume: — Gal / L / mL

Depth to Water From MP: 10.80 ft

Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 49.77 ft

Well Water Volume: 30.10 Gal (L)

Total Drawdown: 0.20 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1359	10.97	100	6.47	3314	18.67	-39.7	2.65	1908.5
2	1401	10.99	100	6.47	3311	18.83	-46.0	2.56	2110.7
3	1403	11.00	100	6.47	3344	18.77	-47.6	2.69	1818.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: A7600

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)
<u>3</u>	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
<u>1</u>	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
<u>1</u>	General (P, 500mL) <u>1000mL</u>
	Ammonia (P, 250mL, H2SO4)
<u>1</u>	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - over range mg/L

Final DTW: 11.00 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM22D

Purge Method: portable pump with Redscale Tubing

Date: 7/19/2023 Start Time: 1105 Finish/Sample Time: 1242

Well Depth (Bottom) From MP: 65.49 ft 65.07 Min. Purge Volume: — Gal / L / mL

Depth to Water From MP: 18.85 ft Total Purge Volume: 1000 Gal / L / 1 mL

Water Column Length: 46.22 ft

Well Water Volume: 27.95 Gal (L) Total Drawdown: 0.02 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	11:38	18.90	100	6.70	3859	18.50	5.3	2.71	5747.5
2	11:40	18.90	100	6.69	3887	18.63	3.9	2.62	5884.4
3	11:42	18.90	100	6.68	3907	18.66	2.2	2.58	6542.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: A7600

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 3.322 mg/L

Final DTW: 18.87 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM23D

Purge Method: Bailer

Date: 7/27/23 Start Time: 12:25 Finish/Sample Time: 14:12

Well Depth (Bottom) From MP: 82.91 ft Min. Purge Volume: 26.83 Gal / L / mL

Depth to Water From MP: 38.54 ft Total Purge Volume: 80.5 Gal / L / mL

Water Column Length: 44.37 ft

Well Water Volume: 26.83 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	1248	39.00	27 bail	6.72	1590	13.91	-6	9.00	98.6
2	1305	39.39	27 bail	6.33	1600	14.09	-16	8.76	100
3	1321	39.39	27 bail	6.34	1610	14.33	-20	8.68	113
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Ferrous Iron - 2.502 mg/L

Final DTW: 39.68 ft

Comments

Sampler's Signature: Joseph A. Paul

Duck Creek

WELL/SAMPLE POINT **OM24D**

Purge Method: Submersible pump

Date: 7/27/23 Start Time: 1428 Finish/Sample Time: 1540

Well Depth (Bottom) From MP: 19.66 ft Min. Purge Volume: 1.0 Gal / L / mL

Depth to Water From MP: 4.90 ft Total Purge Volume: 1.3 Gal / L / mL

Water Column Length: 14.76 ft

Well Water Volume: 8.93 Gal 1 Total Drawdown: 0.05 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1448	4.92	100	6.31	2620	28.80	-61	2.03	732
2	1449	4.92	100	6.31	2630	28.80	-61	1.94	717
3	1450	4.92	100	6.32	2640	28.78	-61	1.90	710
4	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Ferrous Iron - Over range mg/L

Final DTW: 4.95 ft

Comments

Sampler's Signature: Joshy Reed

Duck Creek

WELL/SAMPLE POINT OM24D

Purge Method:

8/10/23

Start Time:

1033

Finish/Sample Time:

1058

Well Depth (Bottom) From MP:

19.66 ft

Min. Purge Volume:

1.0

Gal / L / mL

Depth to Water From MP:

4.1]

Total Purge Volume:

1.3

Gal / L / mL

Water Column Length:

15.55

Well Water Volume:

949

Gal / L

Total Drawdown:

0.05

斤

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	1048	4.16	100	6.51	3090	19.70	-46	3.54	157
2	1049	4.16	100	6.50	3090	19.61	-46	3.48	52.5
3	1050	4.17	100	6.50	3090	19.54	-46	3.33	55.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Heriberto

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:

[illegible][illegible]

Final DTW:

416

ft

Comments

Sampler's Signature:

Joseph R Reed

Duck Creek

WELL/SAMPLE POINT OM255

Purge Method: Bailer

Date: 7/26/23 Start Time: 1251 Finish/Sample Time: 1330

Well Depth (Bottom) From MP: 63.97 ft Min. Purge Volume: 8 Gal @ / mL

Depth to Water From MP: 57.96 ft Total Purge Volume: 8 Gal @ / mL

Water Column Length: 6.01 ft

Well Water Volume: 3.64 Gal / L Total Drawdown: 0.79 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1301		—	6.89	5100.5	19.84	-10.7	1.70	657.92
2	1306		—	6.87	3225.1	18.34	0.9	1.82	448.74
3									
4						19.08			
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Agilent 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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 1.370 mg/L

Final DTW: 58.75 ft

Comments Purged 2 volumes due to slow recharge
Used Bailer

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM25S

Purge Method: bailer

Date: 8/10/23 Start Time: 949 Finish/Sample Time: 1015

Well Depth (Bottom) From MP: 63.97 ft Min. Purge Volume: 3.66 Gal / L / mL

Depth to Water From MP: 57.92 ft Total Purge Volume: 3.75 Gal / L / mL

Water Column Length: 6.05 ft

Well Water Volume: 3.66 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	1000	56.14	1 bail	6.11	3300	15.29	140	4.43	769
2									
3									
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod. ☒ Strong

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

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
1	1000 ml plastic

Filtered	
Qty	Bottles
1	1000 ml plastic

Final DTW: 61.22 ft

Comments Insufficient water for submersible
1 bail/1 read taken - drawdown too great

Sampler's Signature: _____

Multiparameter Meter Field Calibration Checklist

Field Personnel: JD NW		Location: Vistula Duck Creek	
Weather: 13-79° cloudy wind NNW 5mph		Environment: Grass	
Multiparameter Water Meter	Make: Aquatroll	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.	Pass	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.05	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1973.3	µS/cm	±5%	I	I	I	Geotech	3GA1071	Jan-24
ORP	223.3	mV	±15 mV	I	I	I	InSitu	261262	Jun-23
DO (Zero pt)	0.08	mg/L	±0.1	I	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	97.95	%	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: 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	7.07	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	980.40	µS/cm	±5%	I	I	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/A	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.08	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC 1000	997.20	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)	0.00	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: Nicole Weller	Date: 7/18/23
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36A526
Oct 23
7/21

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Brendan Glenon</u>	Location: <u>Duck Creek Power Station</u>
Weather: <u>70° Cloudy 3 mph W</u>	Environment: <u>Gross field</u>

Multiparameter Water Meter	Make: <u>PAC</u>	Model: <u>600</u>	Serial Number: <u>762193</u>
Water Level Meter	Make: <u>Heron</u>	Model: <u>200FL</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>0.5</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>-7.00</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	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	022361-01	12/27/2024
SC 1000	<u>/</u>	µS/cm	±5%	<u>/</u>	<u>/</u>	<u>/</u>	Ricca	4209A12	Aug-23
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:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	023067-01	3/14/2025
7.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	023051-02	2/21/2025
10.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	022361-01	12/27/2024
SC 1000	<u>/</u>	µS/cm	±5%	<u>/</u>	<u>/</u>	<u>/</u>	Ricca	4209A12	Aug-23
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)

Comments: Only 1 well

Signature: <u>Brendan Glenon</u>	Date: <u>7/18/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyle Lane				Location: Duck Creek					
Weather: 81° Sunny				Environment: Driv					
Multiparameter Water Meter		Make: Hanna	Model: u-500	Serial Number: PW264023					
Water Level Meter		Make: Heron	Model: Water Tape	Serial Number: 19FF 21151924B					

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.48	s.u.	±0.1 s.u.	F	Yes	3.48	MSI	L344-09	12/14/2023
pH 7.00a	6.70	s.u.	±0.1 s.u.	F	Yes	6.95	MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	F	No	No	MSI	M082-04	3/25/2024
SC Zero (DI)	20.10	µS/cm	0<25 µS/cm	P	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P	↓	↓	Geotech	3GA1071	Jan-24
ORP	214	mV	±15 mV	P	↓	↓	InSitu	2G1762	Jan-23
DO (Zero pt)	0.08	mg/L	±0.1	P	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	97.60	%	97-100%	P	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	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: 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	↓	Geotech	2GC931	Mar-24	
pH 10.00b	9.88	s.u.	±0.15 s.u.	P	↓	Geotech	2GE820	May-24	
SC 1000	1010	µS/cm	±5%	P	↓	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: 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	↓	↓	Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: [Signature]	Date: 7-18-23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Remberon</u>	Location: <u>Duck Creek</u>
Weather: <u>69-80°F mostly cloudy wind NE 3-5 mph</u>	Environment: <u>grass field dust</u>

Multiparameter Water Meter	Make: <u>A7</u>	Model: <u>600</u>	Serial Number: <u>762215</u>
Water Level Meter	Make: <u>Heron</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>4.00</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>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>9.98</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>19.09</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>2002.7</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Geotech	3GA1071	Jan-24
ORP	<u>225.7</u>	mV	±15 mV	<u>I</u>	<u>I</u>	<u>I</u>	InSitu	<u>3G1762</u>	<u>Jun-23</u>
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>98.98</u>	%	97-100%	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.23</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:	0925		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24
pH 7.00b	6.87	s.u.	±0.15 s.u.	I	I	Geotech	2GC931	Mar-24
pH 10.00b	9.95	s.u.	±0.15 s.u.	I	I	Geotech	2GE820	May-24
SC 1000	1005.3	µS/cm	±5%	I	L	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>4.08</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>7.02</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>10.10</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>1033.7</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Ricca	4207N97	Jul-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: <u> </u>			
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>7/18/2023</u>
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3GA52W
Oct 23
6A 7/24

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Angen Pemberon</u>				Location: <u>Duck Creek</u>			
Weather: <u>71°-86°f sunny wind SE 6 mph</u>				Environment: <u>woods, farm field</u>			
Multiparameter Water Meter		Make: <u>AT</u>	Model: <u>600</u>	Serial Number: <u>739449</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>4.03</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>6.96</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>9.92</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>15.16</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>1697.4</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Geotech	3GA1071	Jan-24
ORP	<u>225.6</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	<u>N/A</u>	InSitu	<u>261762</u>	<u>Jun-23</u>
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>99.33</u>	%	97-100%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</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>0655</u>			
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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	Mar-24
pH 7.00b	<u>6.96</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>9.92</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24
SC 1000	<u>156.07</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>1530</u>			
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.06</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>7.03</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>10.09</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>1004.5</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>0.00</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:			
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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>7/19/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: NW				Location: Duck Creek			
Weather: Sunny wind ESE 10mph 75-88°F				Environment: Grass			
Multiparameter Water Meter		Make: 4quatroV	Model: 1000	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	1833.7	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	10.88	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	7800	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	4.11	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	7.00	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
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3GA526
Oct 23
7/24

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>Gross Field</u>			
Multiparameter Water Meter		Make: <u>AquaTron</u>	Model: <u>600</u>	Serial Number: <u>762193</u>			
Water Level Meter		Make: <u>Heson</u>	Model: <u>2004T DRAFT</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>9.99</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>0.85</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>1.76</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>11:19</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>YES</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>NO</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>	Date: <u>7/20/23</u>
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Nicole Walsh

Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyle Lann				Location: Duck Creek			
Weather: 83° Sunny				Environment: wet			
Multiparameter Water Meter		Make: Haniba	Model: V-5000	Serial Number: 19FF2202131ML PW69103			
Water Level Meter		Make: Heron	Model: water tape	Serial Number: 19FF2202131ML			

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)	98.00	%	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: [Signature]	Date: 7-20-2023
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3GA524
Oct 23
W 7:12

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>			Location: <u>Duck Creek</u>		
Weather: <u>80°-88° Sunny</u> <u>Wind NW 7 mph</u>			Environment: <u>grass, dirt, forest</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>DIPPER</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>		MSI	L343-07	12/9/2023
pH 10.00a	<u>9.13</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>No</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>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1045.6</u>	µS/cm	±5%	<u>P</u>	<u>No</u>		Geotech	3GA1071	Jan-24
ORP	<u>223.4</u>	mV	±15 mV	<u>P</u>	<u>No</u>		InSitu	261762	Jun-23
DO (Zero pt)	<u>0.06</u>	mg/L	±0.1	<u>P</u>	<u>No</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.67</u>	%	97-100%	<u>P</u>	<u>No</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</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

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>4.02</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>		Geotech	2GC931	Mar-24
pH 10.00b	<u>9.87</u>	s.u.	±0.15 s.u.	<u>P</u>		Geotech	2GE820	May-24
SC 1000	<u>1044.00</u>	µS/cm	±5%	<u>P</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>		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>		MSI	M082-04	3/25/2024
SC 1000	<u>1044.86</u>	µS/cm	±5%	<u>P</u>	<u>No</u>		Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.07</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>No</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.00</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

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>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: JD	Location: Vista Duck Creek
Weather: 78-90°F p. cloudy wind W 8-13 mph	Environment: 30 HFF HFF2209305ML grass

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 762215
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Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305ML
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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.	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 Zero (DI)	9.67	µS/cm	0<25 µS/cm	pass	No	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	984.2	µS/cm	±5%	pass	No	NA	Geotech	3GA1071	Jan-24
ORP	216.3	mV	±15 mV	pass	No	NA	InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1	pass	No	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.55	%	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: 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.	pass	NA	Geotech	2GC931	Mar-24	
pH 10.00b	9.91	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE820	May-24	
SC 1000	772.24	µS/cm	±5%	pass	NA	Ricca	4207N97	Jul-24	

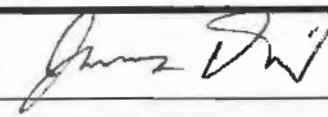
Approx. every 4 hrs, unless only one well

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.	pass	No	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.08	s.u.	±0.1 s.u.	pass	No	NA	MSI	M082-04	3/25/2024
SC 1000	981.14	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)	0.49	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: 	Date: 7/20/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: Vista Duck Creek					
Weather: 76-90°F sunny wind NNE 6 mph				Environment: grass, woods					
Multiparameter Water Meter		Make: Aquatroff	Model: 600	Serial Number: 762215					
Water Level Meter		Make: Hevon	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.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	10.03	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC Zero (DI)	10.26	µS/cm	0<25 µS/cm	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2013.6	µS/cm	±5%	I	I	I	Geotech	3GA1071	Jan-24
ORP	217.4	mV	±15 mV	I	I	I	InSitu	261762	Jun-23
DO (Zero pt)	0.08	mg/L	±0.1	I	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	77.32	%	97-100%	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.62	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: 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.	I	I	Geotech	2GC931	Mar-24	
pH 10.00b	9.89	s.u.	±0.15 s.u.	I	I	Geotech	2GE820	May-24	
SC 1000	1009.4	µS/cm	±5%	I	I	Ricca	4207N97	Jul-24	

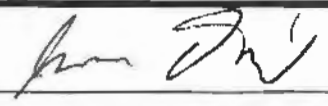
Approx. every 4 hrs, unless only one well

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.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	9.78	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC 1000	336.22	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)	0.52	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: 7/24/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: NW				Location: Duck Creek			
Weather: 76-89°F Sunny wind 2 mph E				Environment: Grass			
Multiparameter Water Meter		Make: Aquatroll	Model: 1000	Serial Number: 739449			
Water Level Meter		Make: Heron	Model: 1900	Serial Number: 19FF2111192HB			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	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	N	N/A	MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P	N	N/A	MSI	022361-01	12/27/2024
SC Zero (DI)	17.05	µS/cm	0<25 µS/cm	P	N	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	17102.1	µS/cm	±5%	F	yes	2000.0	Geotech	3GA1071	Jan-24
ORP	218.1	mV	±15 mV	P	N	N/A	InSitu	3GD927	Jan-24
DO (Zero pt)	0.03	mg/L	±0.1	P	N	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	97.3	%	97-100%	P	N	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	N	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 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	N	Geotech	2GF113	Jun-24	
pH 10.00b	9.90	s.u.	±0.15 s.u.	P	N	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	N/A	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	2000.0	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)	0.87	NTU	<2 NTU	P	N	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	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 Widen	Date: 7/24/23
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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 1000	<u>2000.41</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	20000	20000
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>9.97</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>I</u>	<u>I</u>		MSI	L343-07	12/9/2023
pH 10.00a	<u>10.01</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</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>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyu Lam</u>				Location: <u>Duck Creek</u>			
Weather: <u>81° Sunny</u>				Environment: <u>dry</u>			
Multiparameter Water Meter		Make: <u>HANNA</u>	Model: <u>U-500</u>	Serial Number: <u>PW2G7J03</u>			
Water Level Meter		Make: <u>Huron</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	/	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: <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>1080</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>Kyu Lam</u>	Date: <u>7-24-23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>NW</u>				Location: <u>Duck Creek</u>			
Weather: <u>Sunny 80-92°F, wind SSE 10mph</u>				Environment: <u>Grass</u>			
Multiparameter Water Meter		Make: <u>Aquatroll</u>	Model: <u>1000</u>	Serial Number: <u>739449</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>1900</u>	Serial Number: <u>19FF211192HB</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	023067-01	3/14/2025
pH 7.00a	<u>6.95</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>9.92</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>17.99</u>	µS/cm	0-25 µS/cm	<u>P</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2203.7</u>	µS/cm	±5%	<u>F</u>	<u>yes</u>	<u>2000.0</u>	Geotech	3GA1071	Jan-24
ORP	<u>213.3</u>	mV	±15 mV	<u>P</u>	<u>N</u>	<u>N/A</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1	<u>P</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.8</u>	%	97-100%	<u>P</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>P</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>09:10</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.21</u>	s.u.	±0.15 s.u.	<u>F</u>	<u>calibrate - 4.00</u>	Geotech	2GE870	May-24	
pH 7.00b	<u>6.82</u>	s.u.	±0.15 s.u.	<u>F</u>	<u>calibrate - 7.00</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>720.85</u>	µS/cm	±5%	<u>F</u>	<u>calibrate - 1000.0</u>	Ricca	4209A12	Aug-23	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>14:27</u> ^{NW}				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.04</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>6.98</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>9.90</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1039.1</u>	µS/cm	±5%	<u>F</u>	<u>yes</u>	<u>1000.0</u>	Ricca	4209A12	Aug-23
DO (Zero pt)	<u>0.07</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>0.70</u>	NTU	<2 NTU	<u>P</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-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>Nickie Wilson</u>	Date: <u>7/25/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyla Lane			Location: Duck Creek		
Weather: 75° to 93° Sunny			Environment: Dry		
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PW294503		
Water Level Meter	Make: Huron	Model: Water Tape	Serial Number: 19FF220213ML		

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	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.95	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)	14.00	µS/cm	0<25 µS/cm	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%	P	NA	NA	Geotech	3GA1071	Jan-24
ORP	214	mV	±15 mV	P	NA	NA	In Situ	2GA002	Jan-23
DO (Zero pt)	0.01	mg/L	±0.1	P	NA	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.00	%	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: 08:47		
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	7.02	s.u.	±0.15 s.u.	P	NA	Geotech	2GC931	Mar-24
pH 10.00b	9.99	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: 16:23			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.02	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
7.00a	7.08	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
10.00a	10.00	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC 1000	1213	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.01	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: Kyla Lane	Date: 7-25-2023
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3GA526
Exp. 08-23
Be 7/26/23

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyle Lora</u>				Location: <u>Duck Creek</u>			
Weather: <u>96° Sunny</u>				Environment: <u>Dry</u>			
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>V-5000</u>	Serial Number: <u>PW267JD3</u>			
Water Level Meter		Make: <u>Huron</u>	Model: <u>Water tape</u>	Serial Number: <u>19FF-2202131ML</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>7.03</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>10.01</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>20.10</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>2000</u>	µS/cm	±5%	<u>P</u>	<u>Na</u>	<u>Na</u>	Geotech	3GA1071	Jan-24
ORP	<u>216</u>	mV	±15 mV	<u>P</u>	<u>Na</u>	<u>Na</u>	InSitu	261762	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>95.10</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>10:23</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>Na</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.93</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>1020</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		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: <u>Heggen</u>	Date: <u>7-27-23</u>
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#3GA526
Exp. Oct '23
BG
9/6/23

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: 1000	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	I	MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	I	I	MSI	022361-01	12/27/2024
SC Zero (DI)	21.54	µS/cm	0<25 µS/cm	P	I	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	I	Macron	#000228049	8/26/2025
DO (Saturated)	98.71	%	97-100%	P	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.01	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: 09:40				
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	10.05	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	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
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BG

Multiparameter Meter Field Calibration Checklist

Field Personnel: KL JR				Location: Duck Creek			
Weather: 75° sunny				Environment: dry			
Multiparameter Water Meter		Make: Haniba	Model: V-5000	Serial Number: PW264JD3			
Water Level Meter		Make: Heron	Model: water tape	Serial Number: 19FF2202131ML			

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	6.93	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)	20.00	µS/cm	0-25 µS/cm	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P	NA	NA	Geotech	3GA1071	Jan-24
ORP	213	mV	±15 mV	P	NA	NA	InSitu	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	3.96	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.93	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 1000	1010	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.02	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	6.94	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
10.00a	10.08	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: Hylae	Date: 7-31-2023
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#3GA526
Exp. Oct '23
BG
9/6/23

Multiparameter Meter Field Calibration Checklist

Field Personnel: JR KL		Location: Duck Creek	
Weather: 70°-86° Sunny wind 3-4 mph		Environment: grass	
Multiparameter Water Meter	Make: Hanba	Model: U500	Serial Number: PW26YJD3
Water Level Meter	Make: Heron	Model: 1900	Serial Number: 19FF2202131ML

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)	0.00	µS/cm	0<25 µS/cm	I	I		Pace Labs	N/A (DI)	N/A (DI)
SC 1000	9.99	µS/cm	±5%	I	I		Geotech	3GA1071	Jan-24
ORP	239	mV	±15 mV	I	I		InSitu	3GD927	Jan-24
DO (Zero pt)	0.04	mg/L	±0.1	I	I		Macron	#000228049	8/26/2025
DO (Saturated)	18.5	%	97-100%	I	I		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	I	I		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 920
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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.	I	I	Geotech	2GF113	Jun-24
pH 10.00b	9.99	s.u.	±0.15 s.u.	I	I	Geotech	2GE820	May-24
SC 1000	1010	µS/cm	±5%	I	I	Ricca	4209A12	Aug-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1515
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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):					Time:
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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
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CHAIN-OF-CUSTODY / Analytical Request Document

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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 #	

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, -) Sample IDs MUST BE UNIQUE	MATRIX CODE DW DRINKING WATER WT WASTE WATER VW WASTE WATER SL PRODUCT SL SOLID OL OIL WP WIPE AR AIR OT OTHER TS TISSUE	SAMPLE TYPE (G=GRAB C=COMP) (see valid codes to left)	MATRIX CODE (see valid codes to left)	DATE	TIME	Project No./ Lab I.D.
1	654L		WT G		7/20/23	1218	
2	654S					1104	
3	657S					1220	
4	0M01					1235	
5	0M01 FA DUP					1235	
6	0M01 FA DUP					1400	
7	660S					1453	
8	143L					1314	
9	653L					1133	
10	653S					1051	
11	144L					1355	
12	652L					1214	
13	660L					1441	
14	651L					1365	
15	651L DUP					1315	
16	650L					1218	
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME	
DC-23Q3 Rev 0		B. Voelker		7/20/23		1721	
ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
V. Voelker		7/20/23		1722		Temp in °C	
						Received on	
						Ice (Y/N)	
						Custody	
						Sealed (Y/N)	
						Cooler (Y/N)	
						Samples	
						Intact (Y/N)	

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Page: 5 of 7

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information		Page: 5 of 7	
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			Address:	see Section A		
Phone:	(217) 753-8911	Purchase Order No.:		Quote Reference:			
Fax:		Project Name:		Project Manager:			
Requested Due Date/TAT:		Project Number:	2285	Profile #:			
10 day							
				REGULATORY AGENCY			
				NPDES	GROUND WATER	DRINKING WATER	
				UST	RCRA	OTHER	
				Site Location		IL	G603764
				STATE:			2285

ITEM #	Section D Required Client Information		Valid Matrix Codes		COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	Project No./ Lab I.D.
	MATRIX	CODE	DATE	TIME	DATE	TIME										
1	G553		WT G	7-20-23	1124		WT G									
2	G554		WT G	7-20-23	1050		WT G									
3	X301 PUMP house		WT G	7-20-23	1512		WT G									
4	EB4		WT G	7-20-23	1600		WT G									
5	EB5		WT G	7-20-23	1600		WT G									
6																
7																
8																
9																
10																
11																
12																
13																
14																
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16																
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66-04124-78
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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 #	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER WASTE WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER Tissue	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	COLLECTED		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test	Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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AD up / up 7/25/23	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Sam Dan	7/24/23	1742	Jason David	7/24/23	1742	Received on Ice (Y/N) 4 Custody Sealed (Y/N) N Cooler (Y/N) Samples Intact (Y/N) 4
ADDITIONAL COMMENTS DC-23Q3 Rev 0							
SAMPLER NAME AND SIGNATURE				DATE SIGNED (MM/DD/YY)			
PRINT Name of SAMPLER: Jason David				7/24/23			
SIGNATURE of SAMPLER: Sam Dan							

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information		Section B Report To: Brian Voelker		Section C Invoice Information	
Company	Vistra Corp	Report To	Jason Stuckey	Company Name	Vistra Corp
Address	13498 E 900th St	Copy To	Jason Stuckey	Address	see Section A
Email To	Brian.Voelker@VistraCorp.com	Purchase Order No		Quote Reference	
Phone	(217) 753-8911	Project Name		Project Manager	
	Fax	Project Number	2285	Profile #	
Requested Due Date/TAT:		10 day		Requested Analysis Filtered (Y/N)	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	
				Methanol	
				Other	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	
				Methanol	
				Other	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	
				Methanol	
				Other	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	
				Methanol	
				Other	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	
				Methanol	
				Other	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	
				Methanol	
				Other	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	
				Methanol	
				Other	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	
				Methanol	
				Other	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	
				Methanol	
				Other	
				Y/N	
				Analysis Test	
				Unpreserved	
				H ₂ SO ₄	
				HNO ₃	
				HCl	
				NaOH	
				Na ₂ O ₂	

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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 Number:	2285	Project Manager:	
Requested Due Date/TAT:	10 day			Profile #:	

Section D Required Client Information		Valid Matrix Codes		COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)		MATRIX CODE (see valid codes to left)		DATE		TIME		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Analysis Test		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.																
ITEM #	Sample ID (A-Z, 0-9 / -)	DRINKING WATER	WASTE WATER	PRODUCT	SOIL/SOLID	WIFE	AIR	OTHER	TISSUE	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test	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	OM01									7/25/23	1241							2 X																						
2	OM01 DUP									7/25/23	1241							2 X																						
3	G54L									7/25/23	1523							2 X																						
4	G54S									7/25/23	1526							2 X																						
5	G57S									7/25/23	1426							2 X																						
6	X301									7/25/23	1606							2 X																						
7																		1																						
8																		30																						
9																		7/25																						
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CHAIN-OF-CUSTODY / Analytical Request Document

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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: **3304978**

ITEM #	Section D Required Client Information	Valid Matrix Codes CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P OIL/SOLID OL 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 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	0 M12				7/27/23	1602	11													
2	0 M23D				7/27/23	1412	11													
3	0 M24D				7/27/23	1540	11													
4	0 M25D				7/27/23	1428	11													
5	0 M26L				7/27/23	1400	11													
6	0 M27L				7/27/23	1400	11													
7	0 M28L				7/27/23	1206	11													
8	0 M29L				7/27/23	1258	2													
9	0 M30D				7/27/23	1634	2													
10	0 M31D				7/27/23	1101	2													
11	0 M32A				7/27/23	1135	2													
12	0 M33A				7/27/23	1159	2													
13	0 M34A				7/27/23	1219	2													
14	0 M35S				7/27/23	1241	2													
15	0 M36S				7/27/23	1634	1													
16	0 M37L				7/27/23	0000	1													

ADDITIONAL COMMENTS: **DC-23Q3 Rev 0**

RELINQUISHED BY / AFFILIATION: **Joseph R. Rud** DATE: **7/27/23** TIME: **1838**

ACCEPTED BY / AFFILIATION: **Joseph R. Rud** DATE: **7/27/23** TIME: **1838**

SAMPLE NAME AND SIGNATURE: **Joseph R. Rud**

PRINT Name of SAMPLER: **Joseph R. Rud**

SIGNATURE of SAMPLER: **Joseph R. Rud**

DATE Signed (MM/DD/YY): **7/27/23**

Temp in °C: **4.4**

Received on: **7/27/23**

Ice (Y/N): **N**

Custody: **N**

Sealed: **N**

Cooler (Y/N): **N**

Samples Intact (Y/N): **N**

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

Page: 1 of 7

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
		Purchase Order No.:		Address:	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Project Name:		Quote Reference:	
Phone:	(217) 753-8911	Project Number:	2285	Project Manager:	
		Requested Due Date/TAT:	10 day	Profile #:	
Valid Matrix Codes		Valid Matrix Codes		Valid Matrix Codes	
MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIFE WP AIR AR OTHER OT TISSUE TS		MATRIX CODE DW WW P SL OL WP AR OT TS		MATRIX CODE DW WW P SL OL WP AR OT TS	
Section D Required Client Information		Section E Required Project Information		Section F Requested Analysis Filtered (Y/N)	
SAMPLE ID (A-Z, 0-9 / .) Sample IDs MUST BE UNIQUE		SAMPLE TYPE (G=GRAB C=COMP) MATRIX CODE (see valid codes to left)		SAMPLE TEMP AT COLLECTION # OF CONTAINERS	
ITEM #	DATE	TIME	DATE	TIME	DATE
1	7/31/23	1130	7/31/23	1130	7/31/23
2	7/31/23	1327	7/31/23	1327	7/31/23
3	7/31/23	1550	7/31/23	1550	7/31/23
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
Section G Requested Analysis Filtered (Y/N)		Section H Requested Analysis Filtered (Y/N)		Section I Requested Analysis Filtered (Y/N)	
Analysis Test 1 H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ O ₂ Methanol Other		Analysis Test 2 H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ O ₂ Methanol Other		Analysis Test 3 H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ O ₂ Methanol Other	
DC-257-205		DC-257-205		DC-257-205	
DC-845-205		DC-845-205		DC-845-205	
DC-845-201-202		DC-845-201-202		DC-845-201-202	
DC-257-203		DC-257-203		DC-257-203	
DC-845-203		DC-845-203		DC-845-203	
DC-257-204		DC-257-204		DC-257-204	
DC-WPCP-203-206		DC-WPCP-203-206		DC-WPCP-203-206	
DC-CLOSURE-201-202		DC-CLOSURE-201-202		DC-CLOSURE-201-202	
Residual Chlorine (Y/N)		Residual Chlorine (Y/N)		Residual Chlorine (Y/N)	
Project No./ Lab I.D.		Project No./ Lab I.D.		Project No./ Lab I.D.	
Sample		Sample		Sample	
Cooler (Y/N)		Cooler (Y/N)		Cooler (Y/N)	
Received on		Received on		Received on	
Ice (Y/N)		Ice (Y/N)		Ice (Y/N)	
Custody		Custody		Custody	
Sealed		Sealed		Sealed	
Intact (Y/N)		Intact (Y/N)		Intact (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:		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:	#REF!	Project Number:	2285	Project Manager:	
				Profile #	

Section D Required Client Information		Valid Matrix Codes		Requested Analysis Filtered (Y/N)		Regulatory Agency	
Item #	Sample ID (A-Z, 0-9 / -)	Matrix Code (see valid codes to left)	Sample Type (G=GRAB C=COMP)	Collected DATE	Time	Sample Temp at Collection	Project No./Lab I.D.
1	OR06A			8/10/23	1241		
2	OM07				1204		
3	OR11				1319		
4	OR13D				1358		
5	OR13D DUP				1358		
6	OR13S				1430		
7	OM24E				1058		
8	OM25S				1015		
9	EB13				1620		
10							
11							
12							
13							
14							
15							
16							

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Sample Conditions
Joseph R Red	8/10/23	1630	Joseph R Red	8/10/23	1630	Temp in °C: 8.6
						Received on Ice (Y/N): Y
						Custody Sealed (Y/N): N
						Cooler (Y/N): Y
						Samples Intact (Y/N): Y

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

GG04652
YmW 7-26-23
Page: 1 of 7

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

ITEM #	Valid Matrix Codes MATRIX CODE DW WV WW P SL OL WP AR OT TS	Valid Matrix Codes MATRIX CODE DW WV WW P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives HCl HNO ₃ H ₂ SO ₄ Unpreserved NaOH Na ₂ S ₂ O ₃ Methanol Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
					DATE	TIME															
1	DR130		WTG	G	7/26/23	1315		11	X	X											
2	OR130 Dup					1315		11	X	X											
3	OR135					1412		11	X	X											
4	OR11					1010		11	X	X											
5	OM07					1152		11	X	X											
6	OR06A					1233		11	X	X											
7	OM255					1330		11	X	X											
8	EB10					1500		11	X	X											
9	EB11					1505		11	X	X											
10																					
11																					
12																					
13																					
14																					
15																					
16																					

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
DC-23Q3 Rev 0		Brian Dwy	7/26/23	1529	Jason Stuckey	7-26-23	1529	Temp in °C	Received on	Custody Sealed	Cooler (Y/N)	Samples Intact (Y/N)
		SIGNATURE of SAMPLER:		SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):						
		PRINT Name of SAMPLER:		PRINT Name of SAMPLER:		DATE Signed (MM/DD/YY):						



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

January 17, 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 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 GJ04373

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 GJ04578

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
NO	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 GJ04582

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 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 GK00649

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
YES	Case narrative provided



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

Case Narrative

BA02L, G02L, G04L, G07L, G08L, B09L, G14L, G15L, G51L, OM17, P60, R10L, R11L, XTPWO2 were dry. G52S could not be sampled. OMO1 was sampled but had limited volume. Dissolved metals and ferrous iron are not reported. There is no access point to take DTW for X301. We do not have L103 GWEinformation and can't measure BMP at this location.



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651



ANALYTICAL RESULTS

Sample: GJ03182-08
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 10/17/23 11:14
Received: 10/17/23 16:51
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	39	mg/L		10/18/23 10:39	10	10	10/18/23 10:39	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/18/23 10:21	1	0.250	10/18/23 10:21	CRD	EPA 300.0 REV 2.1
Sulfate	560	mg/L		10/18/23 10:57	100	100	10/18/23 10:57	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.74	Feet		10/17/23 11:14	1		10/17/23 11:14	FIELD	Field*
Dissolved oxygen, Field	3.8	mg/L		10/17/23 11:14	1		10/17/23 11:14	FIELD	Field*
Oxidation Reduction Potential	20.0	mV		10/17/23 11:14	1	-500	10/17/23 11:14	FIELD	Field*
pH, Field Measured	6.10	pH Units		10/17/23 11:14	1		10/17/23 11:14	FIELD	Field*
Specific Conductance, Field Measured	1900	umhos/cm		10/17/23 11:14	1		10/17/23 11:14	FIELD	Field*
Temperature, Field Measured	15.0	°C		10/17/23 11:14	1		10/17/23 11:14	FIELD	Field*
Temperature, Field Measured	59.0	°F		10/17/23 11:14	1		10/17/23 11:14	FIELD	Field*
Turbidity, Field Measured	210	NTU		10/17/23 11:14	1	0.00	10/17/23 11:14	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	510	mg/L		10/27/23 14:21	1	10	10/27/23 14:21	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		10/27/23 14:21	1	10	10/27/23 14:21	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1400	mg/L		10/19/23 13:29	1	26	10/19/23 15:14	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/19/23 08:58	5	3.0	10/19/23 16:26	TJJ	EPA 6020A
Arsenic	40	ug/L		10/19/23 08:58	5	1.0	10/19/23 16:26	TJJ	EPA 6020A
Barium	78	ug/L		10/19/23 08:58	5	1.0	10/19/23 16:26	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/19/23 08:58	5	1.0	10/19/23 16:26	TJJ	EPA 6020A
Boron	3300	ug/L		10/19/23 08:58	5	10	10/20/23 12:36	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/19/23 08:58	5	1.0	10/19/23 16:26	TJJ	EPA 6020A
Calcium	260	mg/L		10/19/23 08:58	5	0.20	10/19/23 16:26	TJJ	EPA 6020A
Chromium	6.6	ug/L		10/19/23 08:58	5	4.0	10/19/23 16:26	TJJ	EPA 6020A
Cobalt	5.0	ug/L		10/19/23 08:58	5	2.0	10/19/23 16:26	TJJ	EPA 6020A
Lead	13	ug/L		10/19/23 08:58	5	1.0	10/19/23 16:26	TJJ	EPA 6020A
Magnesium	110	mg/L		10/19/23 08:58	5	0.10	10/19/23 16:26	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/19/23 08:58	5	0.20	10/20/23 12:36	TJJ	EPA 6020A
Molybdenum	8.8	ug/L		10/19/23 08:58	5	1.0	10/19/23 16:26	TJJ	EPA 6020A



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

ANALYTICAL RESULTS

Sample: GJ03182-08

Name: OR13S

Matrix: Ground Water - Grab

Sampled: 10/17/23 11:14

Received: 10/17/23 16:51

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.4	mg/L		10/19/23 08:58	5	0.10	10/19/23 16:26	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/19/23 08:58	5	1.0	10/19/23 16:26	TJJ	EPA 6020A
Sodium	69	mg/L		10/19/23 08:58	5	0.10	10/19/23 16:26	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/19/23 08:58	5	1.0	10/19/23 16:26	TJJ	EPA 6020A
Lithium	0.021	mg/L		10/19/23 08:58	1	0.020	10/25/23 11:37	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ03740-02
Name: BA06
Matrix: Ground Water - Grab

Sampled: 10/19/23 13:09
Received: 10/19/23 16:42
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	510	mg/L		10/31/23 01:37	100	100	10/31/23 01:37	CRD	EPA 300.0 REV 2.1
Sulfate	370	mg/L		10/25/23 03:40	50	50	10/25/23 03:40	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.76	Feet		10/19/23 13:09	1		10/19/23 13:09	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/19/23 13:09	1		10/19/23 13:09	FIELD	Field*
Oxidation Reduction Potential	-38.0	mV		10/19/23 13:09	1	-500	10/19/23 13:09	FIELD	Field*
pH, Field Measured	6.57	pH Units		10/19/23 13:09	1		10/19/23 13:09	FIELD	Field*
Specific Conductance, Field Measured	3170	umhos/cm		10/19/23 13:09	1		10/19/23 13:09	FIELD	Field*
Temperature, Field Measured	13.3	°C		10/19/23 13:09	1		10/19/23 13:09	FIELD	Field*
Temperature, Field Measured	55.9	°F		10/19/23 13:09	1		10/19/23 13:09	FIELD	Field*
Turbidity, Field Measured	3.30	NTU		10/19/23 13:09	1	0.00	10/19/23 13:09	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	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*
Fluoride	< 0.250	mg/L		11/08/23 14:02	1	0.250	11/08/23 14:02	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2000	mg/L		10/24/23 11:20	1	26	10/24/23 15:20	OGS	SM 2540C
Soluble Nutrients - PIA									
Ammonia, Dissolved	< 0.10	mg/L		10/31/23 15:01	1	0.10	10/31/23 15:01	TTH	EPA 350.1 REV2
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/23/23 09:11	5	3.0	10/25/23 16:03	TJJ	EPA 6020A
Arsenic	3.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:03	TJJ	EPA 6020A
Barium	95	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:03	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/27/23 08:14	TJJ	EPA 6020A
Boron	9900	ug/L		10/23/23 09:11	5	10	10/27/23 08:14	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:03	TJJ	EPA 6020A
Calcium	300	mg/L		10/23/23 09:11	5	0.20	10/25/23 16:03	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/23/23 09:11	5	4.0	10/25/23 16:03	TJJ	EPA 6020A
Cobalt	7.0	ug/L		10/23/23 09:11	5	2.0	10/25/23 16:03	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:03	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ03740-02**Name:** BA06**Matrix:** Ground Water - Grab**Sampled:** 10/19/23 13:09**Received:** 10/19/23 16:42**PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Magnesium	210	mg/L		10/23/23 09:11	5	0.10	10/25/23 16:03	TJJ	EPA 6020A
Mercury	0.25	ug/L		10/23/23 09:11	5	0.20	10/25/23 16:03	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:03	TJJ	EPA 6020A
Potassium	0.31	mg/L		10/23/23 09:11	5	0.10	10/25/23 16:03	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:03	TJJ	EPA 6020A
Sodium	17	mg/L		10/23/23 09:11	5	0.10	10/25/23 16:03	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:03	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/23/23 09:11	1	0.020	10/25/23 12:17	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04131-06
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 10/23/23 14:11
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	810	mg/L		10/27/23 21:49	250	250	10/27/23 21:49	CRD	EPA 300.0 REV 2.1
Sulfate	920	mg/L		10/24/23 12:10	100	100	10/24/23 12:10	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.22	Feet		10/23/23 14:11	1		10/23/23 14:11	FIELD	Field*
Dissolved oxygen, Field	0.38	mg/L		10/23/23 14:11	1		10/23/23 14:11	FIELD	Field*
Oxidation Reduction Potential	-13.8	mV		10/23/23 14:11	1	-500	10/23/23 14:11	FIELD	Field*
pH, Field Measured	6.88	pH Units		10/23/23 14:11	1		10/23/23 14:11	FIELD	Field*
Specific Conductance, Field Measured	4426	umhos/cm		10/23/23 14:11	1		10/23/23 14:11	FIELD	Field*
Temperature, Field Measured	57.7	°F		10/23/23 14:11	1		10/23/23 14:11	FIELD	Field*
Temperature, Field Measured	14.3	°C		10/23/23 14:11	1		10/23/23 14:11	FIELD	Field*
Turbidity, Field Measured	889	NTU		10/23/23 14:11	1	0.00	10/23/23 14:11	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	340	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*
Fluoride	< 0.250	mg/L		11/01/23 13:59	1	0.250	11/01/23 13:59	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4000	mg/L		10/25/23 11:20	1	26	10/25/23 14:25	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 14:52	TJJ	EPA 6020A
Arsenic	2.7	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:52	TJJ	EPA 6020A
Barium	49	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:52	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/26/23 08:40	5	1.0	11/01/23 15:59	TJJ	EPA 6020A
Boron	60000	ug/L		10/26/23 08:40	100	200	11/01/23 12:06	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:52	TJJ	EPA 6020A
Calcium	610	mg/L		10/26/23 08:40	100	4.0	11/01/23 12:06	wjm	EPA 6020A
Chromium	7.3	ug/L		10/26/23 08:40	5	4.0	10/31/23 14:52	TJJ	EPA 6020A
Cobalt	4.2	ug/L		10/26/23 08:40	5	2.0	10/31/23 14:52	TJJ	EPA 6020A
Lead	1.9	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:52	TJJ	EPA 6020A
Magnesium	150	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:52	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/26/23 08:40	5	0.20	10/31/23 14:52	TJJ	EPA 6020A
Molybdenum	120	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:52	TJJ	EPA 6020A



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2231 W. Altorfer Drive

Peoria, IL 61615

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ANALYTICAL RESULTS

Sample: GJ04131-06

Name: OM22D

Matrix: Ground Water - Grab

Sampled: 10/23/23 14:11

Received: 10/23/23 17:34

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	10	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:52	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:52	TJJ	EPA 6020A
Sodium	160	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:52	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:52	TJJ	EPA 6020A
Lithium	0.045	mg/L		10/26/23 08:40	1	0.020	10/31/23 10:02	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04131-07
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 10/23/23 12:54
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	31	mg/L		10/24/23 12:46	5	5.0	10/24/23 12:46	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/24/23 12:28	1	0.250	10/24/23 12:28	TMS	EPA 300.0 REV 2.1
Sulfate	360	mg/L		10/24/23 13:04	50	50	10/24/23 13:04	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	39.06	Feet		10/23/23 12:54	1		10/23/23 12:54	FIELD	Field*
Dissolved oxygen, Field	0.73	mg/L		10/23/23 12:54	1		10/23/23 12:54	FIELD	Field*
Oxidation Reduction Potential	-42.9	mV		10/23/23 12:54	1	-500	10/23/23 12:54	FIELD	Field*
pH, Field Measured	7.00	pH Units		10/23/23 12:54	1		10/23/23 12:54	FIELD	Field*
Specific Conductance, Field Measured	1771	umhos/cm		10/23/23 12:54	1		10/23/23 12:54	FIELD	Field*
Temperature, Field Measured	58.2	°F		10/23/23 12:54	1		10/23/23 12:54	FIELD	Field*
Temperature, Field Measured	14.6	°C		10/23/23 12:54	1		10/23/23 12:54	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/23/23 12:54	1	0.00	10/23/23 12:54	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	640	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)	1200	mg/L		10/25/23 11:20	1	26	10/25/23 14:25	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 14:41	TJJ	EPA 6020A
Arsenic	1.8	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:41	TJJ	EPA 6020A
Barium	38	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:41	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/26/23 08:40	5	1.0	11/01/23 11:51	TJJ	EPA 6020A
Boron	2000	ug/L		10/26/23 08:40	5	10	11/01/23 11:51	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:41	TJJ	EPA 6020A
Calcium	160	mg/L		10/26/23 08:40	5	0.20	10/31/23 14:41	TJJ	EPA 6020A
Chromium	4.0	ug/L		10/26/23 08:40	5	4.0	10/31/23 14:41	TJJ	EPA 6020A
Cobalt	2.2	ug/L		10/26/23 08:40	5	2.0	10/31/23 14:41	TJJ	EPA 6020A
Lead	2.5	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:41	TJJ	EPA 6020A
Magnesium	94	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:41	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/26/23 08:40	5	0.20	10/31/23 14:41	TJJ	EPA 6020A
Molybdenum	2.4	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:41	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04131-07

Name: OM23D

Matrix: Ground Water - Grab

Sampled: 10/23/23 12:54

Received: 10/23/23 17:34

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	5.5	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:41	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:41	TJJ	EPA 6020A
Sodium	110	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:41	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:41	TJJ	EPA 6020A
Lithium	0.036	mg/L		10/26/23 08:40	1	0.020	10/31/23 10:03	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04131-08
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 10/23/23 10:49
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	500	mg/L		10/24/23 13:40	100	100	10/24/23 13:40	TMS	EPA 300.0 REV 2.1
Sulfate	820	mg/L		10/24/23 13:40	100	100	10/24/23 13:40	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	5.4	Feet		10/23/23 10:49	1		10/23/23 10:49	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		10/23/23 10:49	1		10/23/23 10:49	FIELD	Field*
Oxidation Reduction Potential	-45.2	mV		10/23/23 10:49	1	-500	10/23/23 10:49	FIELD	Field*
pH, Field Measured	6.74	pH Units		10/23/23 10:49	1		10/23/23 10:49	FIELD	Field*
Specific Conductance, Field Measured	3344	umhos/cm		10/23/23 10:49	1		10/23/23 10:49	FIELD	Field*
Temperature, Field Measured	60.0	°F		10/23/23 10:49	1		10/23/23 10:49	FIELD	Field*
Temperature, Field Measured	15.6	°C		10/23/23 10:49	1		10/23/23 10:49	FIELD	Field*
Turbidity, Field Measured	371	NTU		10/23/23 10:49	1	0.00	10/23/23 10:49	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	440	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*
Fluoride	0.266	mg/L		11/01/23 14:00	1	0.250	11/01/23 14:00	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2600	mg/L		10/25/23 11:20	1	26	10/25/23 14:25	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 14:56	TJJ	EPA 6020A
Arsenic	5.3	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:56	TJJ	EPA 6020A
Barium	82	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:56	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/26/23 08:40	5	1.0	11/01/23 16:03	TJJ	EPA 6020A
Boron	23000	ug/L		10/26/23 08:40	100	200	11/01/23 12:39	wjm	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:56	TJJ	EPA 6020A
Calcium	400	mg/L		10/26/23 08:40	5	0.20	10/31/23 14:56	TJJ	EPA 6020A
Chromium	7.9	ug/L		10/26/23 08:40	5	4.0	10/31/23 14:56	TJJ	EPA 6020A
Cobalt	3.4	ug/L		10/26/23 08:40	5	2.0	10/31/23 14:56	TJJ	EPA 6020A
Lead	7.4	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:56	TJJ	EPA 6020A
Magnesium	140	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:56	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/26/23 08:40	5	0.20	10/31/23 14:56	TJJ	EPA 6020A
Molybdenum	6.7	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:56	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04131-08

Name: OM24D

Matrix: Ground Water - Grab

Sampled: 10/23/23 10:49

Received: 10/23/23 17:34

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	5.8	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:56	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:56	TJJ	EPA 6020A
Sodium	110	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:56	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:56	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/26/23 08:40	1	0.020	10/31/23 10:04	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04131-09
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 10/23/23 11:30
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	650	mg/L		10/24/23 14:17	100	100	10/24/23 14:17	TMS	EPA 300.0 REV 2.1
Sulfate	730	mg/L		10/24/23 14:17	100	100	10/24/23 14:17	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	58.25	Feet		10/23/23 11:30	1		10/23/23 11:30	FIELD	Field*
Dissolved oxygen, Field	2.5	mg/L		10/23/23 11:30	1		10/23/23 11:30	FIELD	Field*
Oxidation Reduction Potential	-9.30	mV		10/23/23 11:30	1	-500	10/23/23 11:30	FIELD	Field*
pH, Field Measured	6.82	pH Units		10/23/23 11:30	1		10/23/23 11:30	FIELD	Field*
Specific Conductance, Field Measured	3656	umhos/cm		10/23/23 11:30	1		10/23/23 11:30	FIELD	Field*
Temperature, Field Measured	14.4	°C		10/23/23 11:30	1		10/23/23 11:30	FIELD	Field*
Temperature, Field Measured	57.9	°F		10/23/23 11:30	1		10/23/23 11:30	FIELD	Field*
Turbidity, Field Measured	1670	NTU		10/23/23 11:30	1	0.00	10/23/23 11:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	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*
Fluoride	< 0.250	mg/L		11/01/23 14:42	1	0.250	11/01/23 14:42	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2900	mg/L		10/25/23 11:20	1	26	10/25/23 14:25	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 15:00	TJJ	EPA 6020A
Arsenic	50	ug/L		10/26/23 08:40	100	20	11/01/23 12:43	TJJ	EPA 6020A
Barium	630	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:00	TJJ	EPA 6020A
Beryllium	< 20	ug/L		10/26/23 08:40	100	20	11/01/23 12:43	TJJ	EPA 6020A
Boron	34000	ug/L		10/26/23 08:40	100	200	11/01/23 12:43	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:00	TJJ	EPA 6020A
Calcium	480	mg/L		10/26/23 08:40	5	0.20	10/31/23 15:00	TJJ	EPA 6020A
Chromium	190	ug/L		10/26/23 08:40	5	4.0	10/31/23 15:00	TJJ	EPA 6020A
Cobalt	120	ug/L		10/26/23 08:40	5	2.0	10/31/23 15:00	TJJ	EPA 6020A
Lead	110	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:00	TJJ	EPA 6020A
Magnesium	270	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:00	TJJ	EPA 6020A
Mercury	0.23	ug/L		10/26/23 08:40	5	0.20	10/31/23 15:00	TJJ	EPA 6020A
Molybdenum	12	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:00	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04131-09

Name: OM25S

Matrix: Ground Water - Grab

Sampled: 10/23/23 11:30

Received: 10/23/23 17:34

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	23	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:00	TJJ	EPA 6020A
Selenium	3.6	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:00	TJJ	EPA 6020A
Sodium	110	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:00	TJJ	EPA 6020A
Thallium	1.1	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:00	TJJ	EPA 6020A
Lithium	0.27	mg/L		10/26/23 08:40	5	0.10	10/31/23 10:16	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04131-10
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 10/23/23 15:30
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	820	mg/L		10/24/23 15:47	250	250	10/24/23 15:47	TMS	EPA 300.0 REV 2.1
Sulfate	490	mg/L		10/24/23 15:47	250	250	10/24/23 15:47	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	45.26	Feet		10/23/23 15:30	1		10/23/23 15:30	FIELD	Field*
Dissolved oxygen, Field	8.9	mg/L		10/23/23 15:30	1		10/23/23 15:30	FIELD	Field*
Oxidation Reduction Potential	-29.1	mV		10/23/23 15:30	1	-500	10/23/23 15:30	FIELD	Field*
pH, Field Measured	7.45	pH Units		10/23/23 15:30	1		10/23/23 15:30	FIELD	Field*
Specific Conductance, Field Measured	3684	umhos/cm		10/23/23 15:30	1		10/23/23 15:30	FIELD	Field*
Temperature, Field Measured	22.2	°C		10/23/23 15:30	1		10/23/23 15:30	FIELD	Field*
Temperature, Field Measured	72.0	°F		10/23/23 15:30	1		10/23/23 15:30	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/23/23 15:30	1	0.00	10/23/23 15:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	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*
Fluoride	< 0.250	mg/L		11/01/23 14:43	1	0.250	11/01/23 14:43	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4800	mg/L		10/25/23 11:20	1	26	10/25/23 14:25	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 15:04	TJJ	EPA 6020A
Arsenic	20	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:04	TJJ	EPA 6020A
Barium	580	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:04	TJJ	EPA 6020A
Beryllium	3.9	ug/L		10/26/23 08:40	5	1.0	11/01/23 16:23	TJJ	EPA 6020A
Boron	27000	ug/L		10/26/23 08:40	100	200	11/01/23 12:47	wjm	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:04	TJJ	EPA 6020A
Calcium	420	mg/L		10/26/23 08:40	5	0.20	10/31/23 15:04	TJJ	EPA 6020A
Chromium	140	ug/L		10/26/23 08:40	5	4.0	10/31/23 15:04	TJJ	EPA 6020A
Cobalt	68	ug/L		10/26/23 08:40	5	2.0	10/31/23 15:04	TJJ	EPA 6020A
Lead	50	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:04	TJJ	EPA 6020A
Magnesium	220	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:04	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/26/23 08:40	5	0.20	10/31/23 15:04	TJJ	EPA 6020A
Molybdenum	11	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:04	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04131-10

Name: OR03D

Matrix: Ground Water - Grab

Sampled: 10/23/23 15:30

Received: 10/23/23 17:34

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	17	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:04	TJJ	EPA 6020A
Selenium	5.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:04	TJJ	EPA 6020A
Sodium	160	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:04	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:04	TJJ	EPA 6020A
Lithium	0.14	mg/L		10/26/23 08:40	5	0.10	10/31/23 10:17	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04373-01
Name: OR20
Matrix: Ground Water - Grab

Sampled: 10/24/23 12:48
Received: 10/24/23 16:39
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	300	mg/L	Q4	10/25/23 12:08	100	100	10/25/23 12:08	CRD	EPA 300.0 REV 2.1
Sulfate	360	mg/L	Q4	10/25/23 12:08	100	100	10/25/23 12:08	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.42	Feet		10/24/23 12:48	1		10/24/23 12:48	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		10/24/23 12:48	1		10/24/23 12:48	FIELD	Field*
Oxidation Reduction Potential	-48.0	mV		10/24/23 12:48	1	-500	10/24/23 12:48	FIELD	Field*
pH, Field Measured	6.85	pH Units		10/24/23 12:48	1		10/24/23 12:48	FIELD	Field*
Specific Conductance, Field Measured	2590	umhos/cm		10/24/23 12:48	1		10/24/23 12:48	FIELD	Field*
Temperature, Field Measured	58.4	°F		10/24/23 12:48	1		10/24/23 12:48	FIELD	Field*
Temperature, Field Measured	14.7	°C		10/24/23 12:48	1		10/24/23 12:48	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/24/23 12:48	1	0.00	10/24/23 12:48	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	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*
Fluoride	0.499	mg/L		11/01/23 14:47	1	0.250	11/01/23 14:47	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1600	mg/L		10/27/23 09:57	1	26	10/27/23 11:44	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 15:19	TJJ	EPA 6020A
Arsenic	44	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:19	TJJ	EPA 6020A
Barium	100	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:19	TJJ	EPA 6020A
Beryllium	1.1	ug/L		10/26/23 08:40	5	1.0	11/01/23 16:27	TJJ	EPA 6020A
Boron	31000	ug/L		10/26/23 08:40	100	200	11/01/23 12:51	wjm	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:19	TJJ	EPA 6020A
Calcium	220	mg/L	Q4	10/26/23 08:40	5	0.20	10/31/23 15:19	TJJ	EPA 6020A
Chromium	22	ug/L		10/26/23 08:40	5	4.0	10/31/23 15:19	TJJ	EPA 6020A
Cobalt	13	ug/L		10/26/23 08:40	5	2.0	10/31/23 15:19	TJJ	EPA 6020A
Lead	19	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:19	TJJ	EPA 6020A
Magnesium	96	mg/L	Q4	10/26/23 08:40	5	0.10	10/31/23 15:19	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/26/23 08:40	5	0.20	10/31/23 15:19	TJJ	EPA 6020A
Molybdenum	42	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:19	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04373-01

Name: OR20

Matrix: Ground Water - Grab

Sampled: 10/24/23 12:48

Received: 10/24/23 16:39

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	8.6	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:19	TJJ	EPA 6020A
Selenium	1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:19	TJJ	EPA 6020A
Sodium	160	mg/L	Q4	10/26/23 08:40	5	0.10	10/31/23 15:19	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:19	TJJ	EPA 6020A
Lithium	0.056	mg/L		10/26/23 08:40	1	0.020	10/31/23 09:52	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04373-02
Name: OR11
Matrix: Ground Water - Grab

Sampled: 10/24/23 11:29
Received: 10/24/23 16:39
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	89	mg/L		10/25/23 12:51	25	25	10/25/23 12:51	CRD	EPA 300.0 REV 2.1
Sulfate	170	mg/L		10/25/23 12:51	25	25	10/25/23 12:51	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	32.35	Feet		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Dissolved oxygen, Field	5.2	mg/L		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Oxidation Reduction Potential	2.00	mV		10/24/23 11:29	1	-500	10/24/23 11:29	FIELD	Field*
pH, Field Measured	7.32	pH Units		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Specific Conductance, Field Measured	1350	umhos/cm		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Temperature, Field Measured	15.5	°C		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Temperature, Field Measured	59.8	°F		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Turbidity, Field Measured	450	NTU		10/24/23 11:29	1	0.00	10/24/23 11:29	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	400	mg/L		11/02/23 17:15	1	10	11/03/23 14:01	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*
Fluoride	0.296	mg/L		11/01/23 14:48	1	0.250	11/01/23 14:48	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	840	mg/L		10/27/23 09:57	1	26	10/27/23 11:44	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 15:35	TJJ	EPA 6020A
Arsenic	2.7	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:35	TJJ	EPA 6020A
Barium	66	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:35	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/26/23 08:40	5	1.0	11/01/23 16:38	TJJ	EPA 6020A
Boron	11000	ug/L		10/26/23 08:40	100	200	11/01/23 13:02	wjm	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:35	TJJ	EPA 6020A
Calcium	140	mg/L		10/26/23 08:40	5	0.20	10/31/23 15:35	TJJ	EPA 6020A
Chromium	5.9	ug/L		10/26/23 08:40	5	4.0	10/31/23 15:35	TJJ	EPA 6020A
Cobalt	3.6	ug/L		10/26/23 08:40	5	2.0	10/31/23 15:35	TJJ	EPA 6020A
Lead	3.9	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:35	TJJ	EPA 6020A
Magnesium	64	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:35	TJJ	EPA 6020A
Mercury	0.27	ug/L		10/26/23 08:40	5	0.20	10/31/23 15:35	TJJ	EPA 6020A
Molybdenum	7.8	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:35	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04373-02**Name:** OR11**Matrix:** Ground Water - Grab**Sampled:** 10/24/23 11:29**Received:** 10/24/23 16:39**PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.4	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:35	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:35	TJJ	EPA 6020A
Sodium	33	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:35	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:35	TJJ	EPA 6020A
Lithium	0.021	mg/L		10/26/23 08:40	1	0.020	10/31/23 10:09	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04373-03
Name: OM16
Matrix: Ground Water - Grab

Sampled: 10/24/23 15:03
Received: 10/24/23 16:39
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	8.0	mg/L		10/25/23 13:34	5	5.0	10/25/23 13:34	CRD	EPA 300.0 REV 2.1
Sulfate	2000	mg/L		10/25/23 13:55	250	250	10/25/23 13:55	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	27.1	Feet		10/24/23 15:03	1		10/24/23 15:03	FIELD	Field*
Dissolved oxygen, Field	2.5	mg/L		10/24/23 15:03	1		10/24/23 15:03	FIELD	Field*
Oxidation Reduction Potential	-16.0	mV		10/24/23 15:03	1	-500	10/24/23 15:03	FIELD	Field*
pH, Field Measured	6.68	pH Units		10/24/23 15:03	1		10/24/23 15:03	FIELD	Field*
Specific Conductance, Field Measured	4020	umhos/cm		10/24/23 15:03	1		10/24/23 15:03	FIELD	Field*
Temperature, Field Measured	15.5	°C		10/24/23 15:03	1		10/24/23 15:03	FIELD	Field*
Temperature, Field Measured	59.9	°F		10/24/23 15:03	1		10/24/23 15:03	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/24/23 15:03	1	0.00	10/24/23 15:03	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	780	mg/L		11/02/23 17:15	1	10	11/03/23 14:01	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*
Fluoride	< 0.250	mg/L		11/01/23 14:49	1	0.250	11/01/23 14:49	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3700	mg/L		10/27/23 09:57	1	26	10/27/23 11:44	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 15:39	TJJ	EPA 6020A
Arsenic	8.6	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:39	TJJ	EPA 6020A
Barium	48	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:39	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/26/23 08:40	5	1.0	11/01/23 11:59	TJJ	EPA 6020A
Boron	66	ug/L		10/26/23 08:40	5	10	11/01/23 11:59	TJJ	EPA 6020A
Cadmium	7.6	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:39	TJJ	EPA 6020A
Calcium	530	mg/L		10/26/23 08:40	50	2.0	11/03/23 13:44	wjm	EPA 6020A
Chromium	12	ug/L		10/26/23 08:40	5	4.0	10/31/23 15:39	TJJ	EPA 6020A
Cobalt	12	ug/L		10/26/23 08:40	5	2.0	10/31/23 15:39	TJJ	EPA 6020A
Lead	6.3	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:39	TJJ	EPA 6020A
Magnesium	300	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:39	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/26/23 08:40	5	0.20	10/31/23 15:39	TJJ	EPA 6020A
Molybdenum	1.2	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:39	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04373-03

Name: OM16

Matrix: Ground Water - Grab

Sampled: 10/24/23 15:03

Received: 10/24/23 16:39

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	2.9	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:39	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:39	TJJ	EPA 6020A
Sodium	24	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:39	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:39	TJJ	EPA 6020A
Lithium	0.030	mg/L		10/26/23 08:40	1	0.020	10/31/23 10:13	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04373-05
Name: OR-11 FD
Matrix: Ground Water - Grab

Sampled: 10/24/23 11:29
Received: 10/24/23 16:39
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	88	mg/L		10/25/23 15:42	25	25	10/25/23 15:42	CRD	EPA 300.0 REV 2.1
Sulfate	170	mg/L		10/25/23 15:42	25	25	10/25/23 15:42	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	32.35	Feet		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Dissolved oxygen, Field	5.2	mg/L		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Oxidation Reduction Potential	2.00	mV		10/24/23 11:29	1	-500	10/24/23 11:29	FIELD	Field*
pH, Field Measured	7.32	pH Units		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Specific Conductance, Field Measured	1350	umhos/cm		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Temperature, Field Measured	15.5	°C		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Temperature, Field Measured	59.8	°F		10/24/23 11:29	1		10/24/23 11:29	FIELD	Field*
Turbidity, Field Measured	450	NTU		10/24/23 11:29	1	0.00	10/24/23 11:29	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	400	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*
Fluoride	0.276	mg/L		11/01/23 14:50	1	0.250	11/01/23 14:50	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	800	mg/L		10/27/23 09:57	1	26	10/27/23 11:44	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 15:43	TJJ	EPA 6020A
Arsenic	2.8	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:43	TJJ	EPA 6020A
Barium	65	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:43	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/26/23 08:40	5	1.0	11/01/23 16:42	TJJ	EPA 6020A
Boron	12000	ug/L		10/26/23 08:40	100	200	11/01/23 13:06	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:43	TJJ	EPA 6020A
Calcium	150	mg/L		10/26/23 08:40	5	0.20	10/31/23 15:43	TJJ	EPA 6020A
Chromium	5.6	ug/L		10/26/23 08:40	5	4.0	10/31/23 15:43	TJJ	EPA 6020A
Cobalt	3.2	ug/L		10/26/23 08:40	5	2.0	10/31/23 15:43	TJJ	EPA 6020A
Lead	3.6	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:43	TJJ	EPA 6020A
Magnesium	65	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:43	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/26/23 08:40	5	0.20	10/31/23 15:43	TJJ	EPA 6020A
Molybdenum	7.7	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:43	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04373-05

Name: OR-11 FD

Matrix: Ground Water - Grab

Sampled: 10/24/23 11:29

Received: 10/24/23 16:39

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.5	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:43	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:43	TJJ	EPA 6020A
Sodium	34	mg/L		10/26/23 08:40	5	0.10	10/31/23 15:43	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 15:43	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/26/23 08:40	1	0.020	10/31/23 10:15	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04582-01
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 10/25/23 10:15
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	16	mg/L	Q4, R	10/26/23 17:04	5	5.0	10/26/23 17:04	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L	Q3, R	10/26/23 16:10	1	0.250	10/26/23 16:10	TMS	EPA 300.0 REV 2.1
Sulfate	140	mg/L	Q4, R	10/26/23 17:22	25	25	10/26/23 17:22	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.31	Feet		10/25/23 10:15	1		10/25/23 10:15	FIELD	Field*
Dissolved oxygen, Field	8.3	mg/L		10/25/23 10:15	1		10/25/23 10:15	FIELD	Field*
Oxidation Reduction Potential	-1.00	mV		10/25/23 10:15	1	-500	10/25/23 10:15	FIELD	Field*
pH, Field Measured	7.40	pH Units		10/25/23 10:15	1		10/25/23 10:15	FIELD	Field*
Specific Conductance, Field Measured	1490	umhos/cm		10/25/23 10:15	1		10/25/23 10:15	FIELD	Field*
Temperature, Field Measured	15.2	°C		10/25/23 10:15	1		10/25/23 10:15	FIELD	Field*
Temperature, Field Measured	59.2	°F		10/25/23 10:15	1		10/25/23 10:15	FIELD	Field*
Turbidity, Field Measured	28.7	NTU		10/25/23 10:15	1	0.00	10/25/23 10:15	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	780	mg/L		10/27/23 09:57	1	26	10/27/23 11:44	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 14:03	wjm	EPA 6020A
Arsenic	2.2	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:03	wjm	EPA 6020A
Barium	53	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:03	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:03	wjm	EPA 6020A
Boron	53	ug/L		11/01/23 09:04	5	10	11/07/23 09:04	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:03	wjm	EPA 6020A
Calcium	160	mg/L	Q4	11/01/23 09:04	5	0.20	11/06/23 14:03	wjm	EPA 6020A
Chromium	< 4.0	ug/L		11/01/23 09:04	5	4.0	11/06/23 14:03	wjm	EPA 6020A
Cobalt	6.3	ug/L		11/01/23 09:04	5	2.0	11/06/23 14:03	wjm	EPA 6020A
Lead	1.1	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:03	wjm	EPA 6020A
Magnesium	78	mg/L	Q4	11/01/23 09:04	5	0.10	11/06/23 14:03	wjm	EPA 6020A
Mercury	0.48	ug/L		11/01/23 09:04	5	0.20	11/06/23 14:03	wjm	EPA 6020A
Molybdenum	1.2	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:03	wjm	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04582-01

Name: OM04S

Matrix: Ground Water - Grab

Sampled: 10/25/23 10:15

Received: 10/25/23 16:56

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.60	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:03	wjm	EPA 6020A
Selenium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:03	wjm	EPA 6020A
Sodium	15	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:03	wjm	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:03	wjm	EPA 6020A
Lithium	< 0.020	mg/L		11/01/23 09:04	1	0.020	11/06/23 08:39	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04582-02
Name: OM21
Matrix: Ground Water - Grab

Sampled: 10/25/23 15:38
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	270	mg/L		10/26/23 17:59	50	50	10/26/23 17:59	TMS	EPA 300.0 REV 2.1
Sulfate	1100	mg/L		10/26/23 18:17	250	250	10/26/23 18:17	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.64	Feet		10/25/23 15:38	1		10/25/23 15:38	FIELD	Field*
Dissolved oxygen, Field	0.59	mg/L		10/25/23 15:38	1		10/25/23 15:38	FIELD	Field*
Oxidation Reduction Potential	-35.0	mV		10/25/23 15:38	1	-500	10/25/23 15:38	FIELD	Field*
pH, Field Measured	6.70	pH Units		10/25/23 15:38	1		10/25/23 15:38	FIELD	Field*
Specific Conductance, Field Measured	3840	umhos/cm		10/25/23 15:38	1		10/25/23 15:38	FIELD	Field*
Temperature, Field Measured	59.5	°F		10/25/23 15:38	1		10/25/23 15:38	FIELD	Field*
Temperature, Field Measured	15.3	°C		10/25/23 15:38	1		10/25/23 15:38	FIELD	Field*
Turbidity, Field Measured	209	NTU		10/25/23 15:38	1	0.00	10/25/23 15:38	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	640	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*
Fluoride	0.260	mg/L		11/01/23 14:51	1	0.250	11/01/23 14:51	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2600	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 14:14	wjm	EPA 6020A
Arsenic	1.3	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:14	wjm	EPA 6020A
Barium	26	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:14	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:14	wjm	EPA 6020A
Boron	8100	ug/L		11/01/23 09:04	20	40	11/07/23 10:08	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:14	wjm	EPA 6020A
Calcium	320	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:14	wjm	EPA 6020A
Chromium	< 4.0	ug/L		11/01/23 09:04	5	4.0	11/06/23 14:14	wjm	EPA 6020A
Cobalt	< 2.0	ug/L		11/01/23 09:04	5	2.0	11/06/23 14:14	wjm	EPA 6020A
Lead	1.7	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:14	wjm	EPA 6020A
Magnesium	160	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:14	wjm	EPA 6020A
Mercury	0.52	ug/L		11/01/23 09:04	5	0.20	11/06/23 14:14	wjm	EPA 6020A
Molybdenum	2.1	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:14	wjm	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04582-02

Name: OM21

Matrix: Ground Water - Grab

Sampled: 10/25/23 15:38

Received: 10/25/23 16:56

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	11	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:14	wjm	EPA 6020A
Selenium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:14	wjm	EPA 6020A
Sodium	330	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:14	wjm	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:14	wjm	EPA 6020A
Lithium	0.040	mg/L		11/01/23 09:04	1	0.020	11/06/23 08:54	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04582-03
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 10/25/23 11:37
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1100	mg/L		10/26/23 19:47	250	250	10/26/23 19:47	TMS	EPA 300.0 REV 2.1
Sulfate	1100	mg/L		10/26/23 19:47	250	250	10/26/23 19:47	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.83	Feet		10/25/23 11:37	1		10/25/23 11:37	FIELD	Field*
Dissolved oxygen, Field	3.3	mg/L		10/25/23 11:37	1		10/25/23 11:37	FIELD	Field*
Oxidation Reduction Potential	-27.0	mV		10/25/23 11:37	1	-500	10/25/23 11:37	FIELD	Field*
pH, Field Measured	6.47	pH Units		10/25/23 11:37	1		10/25/23 11:37	FIELD	Field*
Specific Conductance, Field Measured	6410	umhos/cm		10/25/23 11:37	1		10/25/23 11:37	FIELD	Field*
Temperature, Field Measured	59.9	°F		10/25/23 11:37	1		10/25/23 11:37	FIELD	Field*
Temperature, Field Measured	15.5	°C		10/25/23 11:37	1		10/25/23 11:37	FIELD	Field*
Turbidity, Field Measured	821	NTU		10/25/23 11:37	1	0.00	10/25/23 11:37	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	440	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*
Fluoride	< 0.250	mg/L		11/01/23 15:44	1	0.250	11/01/23 15:44	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4000	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 14:18	wjm	EPA 6020A
Arsenic	4.9	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:18	wjm	EPA 6020A
Barium	51	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:18	wjm	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:18	wjm	EPA 6020A
Boron	80000	ug/L		11/01/23 09:04	1000	2000	11/07/23 10:12	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:18	wjm	EPA 6020A
Calcium	660	mg/L		11/01/23 09:04	1000	40	11/06/23 16:30	TJJ	EPA 6020A
Chromium	7.5	ug/L		11/01/23 09:04	5	4.0	11/06/23 14:18	wjm	EPA 6020A
Cobalt	4.3	ug/L		11/01/23 09:04	5	2.0	11/06/23 14:18	wjm	EPA 6020A
Lead	4.2	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:18	wjm	EPA 6020A
Magnesium	260	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:18	wjm	EPA 6020A
Mercury	0.21	ug/L		11/01/23 09:04	5	0.20	11/06/23 14:18	wjm	EPA 6020A
Molybdenum	5.2	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:18	wjm	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04582-03

Name: OR04D

Matrix: Ground Water - Grab

Sampled: 10/25/23 11:37

Received: 10/25/23 16:56

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	12	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:18	wjm	EPA 6020A
Selenium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:18	wjm	EPA 6020A
Sodium	200	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:18	wjm	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:18	wjm	EPA 6020A
Lithium	0.063	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:04	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04582-04
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 10/25/23 14:20
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	360	mg/L		10/26/23 20:23	100	100	10/26/23 20:23	TMS	EPA 300.0 REV 2.1
Sulfate	780	mg/L		10/26/23 20:23	100	100	10/26/23 20:23	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.99	Feet		10/25/23 14:20	1		10/25/23 14:20	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		10/25/23 14:20	1		10/25/23 14:20	FIELD	Field*
Oxidation Reduction Potential	-42.0	mV		10/25/23 14:20	1	-500	10/25/23 14:20	FIELD	Field*
pH, Field Measured	7.00	pH Units		10/25/23 14:20	1		10/25/23 14:20	FIELD	Field*
Specific Conductance, Field Measured	3150	umhos/cm		10/25/23 14:20	1		10/25/23 14:20	FIELD	Field*
Temperature, Field Measured	16.7	°C		10/25/23 14:20	1		10/25/23 14:20	FIELD	Field*
Temperature, Field Measured	62.1	°F		10/25/23 14:20	1		10/25/23 14:20	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/25/23 14:20	1	0.00	10/25/23 14:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	410	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*
Fluoride	0.253	mg/L		11/01/23 15:45	1	0.250	11/01/23 15:45	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2200	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 14:22	wjm	EPA 6020A
Arsenic	30	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:22	wjm	EPA 6020A
Barium	260	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:22	wjm	EPA 6020A
Beryllium	2.2	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:22	wjm	EPA 6020A
Boron	19000	ug/L		11/01/23 09:04	100	200	11/07/23 10:16	TJJ	EPA 6020A
Cadmium	4.1	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:22	wjm	EPA 6020A
Calcium	480	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:22	wjm	EPA 6020A
Chromium	65	ug/L		11/01/23 09:04	5	4.0	11/06/23 14:22	wjm	EPA 6020A
Cobalt	38	ug/L		11/01/23 09:04	5	2.0	11/06/23 14:22	wjm	EPA 6020A
Lead	49	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:22	wjm	EPA 6020A
Magnesium	160	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:22	wjm	EPA 6020A
Mercury	0.23	ug/L		11/01/23 09:04	5	0.20	11/06/23 14:22	wjm	EPA 6020A
Molybdenum	14	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:22	wjm	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04582-04

Name: OR14D

Matrix: Ground Water - Grab

Sampled: 10/25/23 14:20

Received: 10/25/23 16:56

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	8.9	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:22	wjm	EPA 6020A
Selenium	6.1	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:22	wjm	EPA 6020A
Sodium	52	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:22	wjm	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:22	wjm	EPA 6020A
Lithium	0.083	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:08	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04582-05
Name: OR19
Matrix: Ground Water - Grab

Sampled: 10/25/23 13:00
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	160	mg/L		10/26/23 20:59	100	100	10/26/23 20:59	TMS	EPA 300.0 REV 2.1
Sulfate	920	mg/L		10/26/23 20:59	100	100	10/26/23 20:59	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.98	Feet		10/25/23 13:00	1		10/25/23 13:00	FIELD	Field*
Dissolved oxygen, Field	7.5	mg/L		10/25/23 13:00	1		10/25/23 13:00	FIELD	Field*
Oxidation Reduction Potential	-53.0	mV		10/25/23 13:00	1	-500	10/25/23 13:00	FIELD	Field*
pH, Field Measured	7.03	pH Units		10/25/23 13:00	1		10/25/23 13:00	FIELD	Field*
Specific Conductance, Field Measured	2950	umhos/cm		10/25/23 13:00	1		10/25/23 13:00	FIELD	Field*
Temperature, Field Measured	16.3	°C		10/25/23 13:00	1		10/25/23 13:00	FIELD	Field*
Temperature, Field Measured	61.3	°F		10/25/23 13:00	1		10/25/23 13:00	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/25/23 13:00	1	0.00	10/25/23 13:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	590	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*
Fluoride	0.366	mg/L		11/01/23 15:46	1	0.250	11/01/23 15:46	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2200	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 14:26	wjm	EPA 6020A
Arsenic	6.9	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:26	wjm	EPA 6020A
Barium	110	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:26	wjm	EPA 6020A
Beryllium	1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:26	wjm	EPA 6020A
Boron	13000	ug/L		11/01/23 09:04	100	200	11/07/23 10:20	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:26	wjm	EPA 6020A
Calcium	340	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:26	wjm	EPA 6020A
Chromium	27	ug/L		11/01/23 09:04	5	4.0	11/06/23 14:26	wjm	EPA 6020A
Cobalt	12	ug/L		11/01/23 09:04	5	2.0	11/06/23 14:26	wjm	EPA 6020A
Lead	17	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:26	wjm	EPA 6020A
Magnesium	160	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:26	wjm	EPA 6020A
Mercury	< 0.20	ug/L		11/01/23 09:04	5	0.20	11/06/23 14:26	wjm	EPA 6020A
Molybdenum	5.2	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:26	wjm	EPA 6020A



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

ANALYTICAL RESULTS

Sample: GJ04582-05

Name: OR19

Matrix: Ground Water - Grab

Sampled: 10/25/23 13:00

Received: 10/25/23 16:56

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	6.8	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:26	wjm	EPA 6020A
Selenium	1.2	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:26	wjm	EPA 6020A
Sodium	140	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:26	wjm	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:26	wjm	EPA 6020A
Lithium	0.037	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:12	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04861-06
Name: OM07
Matrix: Ground Water - Grab

Sampled: 10/26/23 12:04
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	7.2	mg/L		10/27/23 17:36	5	5.0	10/27/23 17:36	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/27/23 13:41	1	0.250	10/27/23 13:41	CRD	EPA 300.0 REV 2.1
Sulfate	170	mg/L		10/27/23 17:54	50	50	10/27/23 17:54	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.12	Feet		10/26/23 12:04	1		10/26/23 12:04	FIELD	Field*
Dissolved oxygen, Field	1.7	mg/L		10/26/23 12:04	1		10/26/23 12:04	FIELD	Field*
Oxidation Reduction Potential	-63.0	mV		10/26/23 12:04	1	-500	10/26/23 12:04	FIELD	Field*
pH, Field Measured	6.84	pH Units		10/26/23 12:04	1		10/26/23 12:04	FIELD	Field*
Specific Conductance, Field Measured	1260	umhos/cm		10/26/23 12:04	1		10/26/23 12:04	FIELD	Field*
Temperature, Field Measured	15.6	°C		10/26/23 12:04	1		10/26/23 12:04	FIELD	Field*
Temperature, Field Measured	60.1	°F		10/26/23 12:04	1		10/26/23 12:04	FIELD	Field*
Turbidity, Field Measured	10.9	NTU		10/26/23 12:04	1	0.00	10/26/23 12:04	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	790	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 14:59	TJJ	EPA 6020A
Arsenic	1.3	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:59	TJJ	EPA 6020A
Barium	44	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:59	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:59	TJJ	EPA 6020A
Boron	450	ug/L		11/01/23 09:04	5	10	11/07/23 09:49	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:59	TJJ	EPA 6020A
Calcium	130	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:59	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/01/23 09:04	5	4.0	11/06/23 14:59	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/01/23 09:04	5	2.0	11/06/23 14:59	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:59	TJJ	EPA 6020A
Magnesium	71	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:59	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/01/23 09:04	5	0.20	11/06/23 14:59	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:59	TJJ	EPA 6020A



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

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ANALYTICAL RESULTS

Sample: GJ04861-06

Name: OM07

Matrix: Ground Water - Grab

Sampled: 10/26/23 12:04

Received: 10/27/23 07:15

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	1.2	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:59	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:59	TJJ	EPA 6020A
Sodium	58	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:59	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:59	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:34	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04861-07
Name: OM12
Matrix: Ground Water - Grab

Sampled: 10/26/23 10:45
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	< 5.0	mg/L		10/27/23 17:00	5	5.0	10/27/23 17:00	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/27/23 13:23	1	0.250	10/27/23 13:23	CRD	EPA 300.0 REV 2.1
Sulfate	380	mg/L		10/27/23 17:18	100	100	10/27/23 17:18	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	17.98	Feet		10/26/23 10:45	1		10/26/23 10:45	FIELD	Field*
Dissolved oxygen, Field	4.7	mg/L		10/26/23 10:45	1		10/26/23 10:45	FIELD	Field*
Oxidation Reduction Potential	-29.0	mV		10/26/23 10:45	1	-500	10/26/23 10:45	FIELD	Field*
pH, Field Measured	6.50	pH Units		10/26/23 10:45	1		10/26/23 10:45	FIELD	Field*
Specific Conductance, Field Measured	1700	umhos/cm		10/26/23 10:45	1		10/26/23 10:45	FIELD	Field*
Temperature, Field Measured	15.8	°C		10/26/23 10:45	1		10/26/23 10:45	FIELD	Field*
Temperature, Field Measured	60.4	°F		10/26/23 10:45	1		10/26/23 10:45	FIELD	Field*
Turbidity, Field Measured	514	NTU		10/26/23 10:45	1	0.00	10/26/23 10:45	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	750	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	1500	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 15:03	TJJ	EPA 6020A
Arsenic	54	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:03	TJJ	EPA 6020A
Barium	250	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:03	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:03	TJJ	EPA 6020A
Boron	59	ug/L		11/01/23 09:04	5	10	11/07/23 09:53	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:03	TJJ	EPA 6020A
Calcium	270	mg/L		11/01/23 09:04	5	0.20	11/06/23 15:03	TJJ	EPA 6020A
Chromium	5.2	ug/L		11/01/23 09:04	5	4.0	11/06/23 15:03	TJJ	EPA 6020A
Cobalt	4.2	ug/L		11/01/23 09:04	5	2.0	11/06/23 15:03	TJJ	EPA 6020A
Lead	6.2	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:03	TJJ	EPA 6020A
Magnesium	110	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:03	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/01/23 09:04	5	0.20	11/06/23 15:03	TJJ	EPA 6020A
Molybdenum	4.6	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:03	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GJ04861-07**Name:** OM12**Matrix:** Ground Water - Grab**Sampled:** 10/26/23 10:45**Received:** 10/27/23 07:15**PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	1.5	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:03	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:03	TJJ	EPA 6020A
Sodium	12	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:03	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:03	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:38	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04861-08
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 10/26/23 14:40
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	510	mg/L		10/27/23 18:12	250	250	10/27/23 18:12	CRD	EPA 300.0 REV 2.1
Sulfate	650	mg/L		10/27/23 18:12	250	250	10/27/23 18:12	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.06	Feet		10/26/23 14:40	1		10/26/23 14:40	FIELD	Field*
Dissolved oxygen, Field	2.9	mg/L		10/26/23 14:40	1		10/26/23 14:40	FIELD	Field*
Oxidation Reduction Potential	-30.0	mV		10/26/23 14:40	1	-500	10/26/23 14:40	FIELD	Field*
pH, Field Measured	6.62	pH Units		10/26/23 14:40	1		10/26/23 14:40	FIELD	Field*
Specific Conductance, Field Measured	3430	umhos/cm		10/26/23 14:40	1		10/26/23 14:40	FIELD	Field*
Temperature, Field Measured	63.2	°F		10/26/23 14:40	1		10/26/23 14:40	FIELD	Field*
Temperature, Field Measured	17.3	°C		10/26/23 14:40	1		10/26/23 14:40	FIELD	Field*
Turbidity, Field Measured	368	NTU		10/26/23 14:40	1	0.00	10/26/23 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	340	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*
Fluoride	< 0.250	mg/L		11/13/23 11:02	1	0.250	11/13/23 11:02	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2800	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 15:07	TJJ	EPA 6020A
Arsenic	11	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:07	TJJ	EPA 6020A
Barium	40	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:07	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:07	TJJ	EPA 6020A
Boron	70000	ug/L		11/01/23 09:04	1000	2000	11/07/23 10:50	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:07	TJJ	EPA 6020A
Calcium	490	mg/L		11/01/23 09:04	5	0.20	11/06/23 15:07	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/01/23 09:04	5	4.0	11/06/23 15:07	TJJ	EPA 6020A
Cobalt	2.2	ug/L		11/01/23 09:04	5	2.0	11/06/23 15:07	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:07	TJJ	EPA 6020A
Magnesium	130	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:07	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/01/23 09:04	5	0.20	11/06/23 15:07	TJJ	EPA 6020A
Molybdenum	92	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:07	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04861-08

Name: OR06A

Matrix: Ground Water - Grab

Sampled: 10/26/23 14:40

Received: 10/27/23 07:15

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	2.9	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:07	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:07	TJJ	EPA 6020A
Sodium	93	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:07	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:07	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:42	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04861-09
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 10/26/23 13:23
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	37	mg/L		10/27/23 18:30	10	10	10/27/23 18:30	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/27/23 14:17	1	0.250	10/27/23 14:17	CRD	EPA 300.0 REV 2.1
Sulfate	280	mg/L		10/27/23 18:48	100	100	10/27/23 18:48	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.66	Feet		10/26/23 13:23	1		10/26/23 13:23	FIELD	Field*
Dissolved oxygen, Field	3.3	mg/L		10/26/23 13:23	1		10/26/23 13:23	FIELD	Field*
Oxidation Reduction Potential	-53.0	mV		10/26/23 13:23	1	-500	10/26/23 13:23	FIELD	Field*
pH, Field Measured	6.83	pH Units		10/26/23 13:23	1		10/26/23 13:23	FIELD	Field*
Specific Conductance, Field Measured	1920	umhos/cm		10/26/23 13:23	1		10/26/23 13:23	FIELD	Field*
Temperature, Field Measured	15.7	°C		10/26/23 13:23	1		10/26/23 13:23	FIELD	Field*
Temperature, Field Measured	60.3	°F		10/26/23 13:23	1		10/26/23 13:23	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/26/23 13:23	1	0.00	10/26/23 13:23	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	700	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 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)	1200	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 15:11	TJJ	EPA 6020A
Arsenic	30	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:11	TJJ	EPA 6020A
Barium	120	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:11	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:11	TJJ	EPA 6020A
Boron	1800	ug/L		11/01/23 09:04	5	10	11/07/23 09:57	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:11	TJJ	EPA 6020A
Calcium	130	mg/L		11/01/23 09:04	5	0.20	11/06/23 15:11	TJJ	EPA 6020A
Chromium	30	ug/L		11/01/23 09:04	5	4.0	11/06/23 15:11	TJJ	EPA 6020A
Cobalt	6.2	ug/L		11/01/23 09:04	5	2.0	11/06/23 15:11	TJJ	EPA 6020A
Lead	11	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:11	TJJ	EPA 6020A
Magnesium	67	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:11	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/01/23 09:04	5	0.20	11/06/23 15:11	TJJ	EPA 6020A
Molybdenum	9.4	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:11	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04861-09

Name: OR13D

Matrix: Ground Water - Grab

Sampled: 10/26/23 13:23

Received: 10/27/23 07:15

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	9.1	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:11	TJJ	EPA 6020A
Selenium	1.3	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:11	TJJ	EPA 6020A
Sodium	250	mg/L		11/01/23 09:04	5	0.10	11/06/23 15:11	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 15:11	TJJ	EPA 6020A
Lithium	0.032	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:47	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04997-11
Name: OR02
Matrix: Ground Water - Grab

Sampled: 10/27/23 13:30
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	190	mg/L	Q3	10/28/23 04:48	50	50	10/28/23 04:48	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/28/23 04:29	1	0.250	10/28/23 04:29	CRD	EPA 300.0 REV 2.1
Sulfate	230	mg/L	Q4	10/28/23 04:48	50	50	10/28/23 04:48	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	7.01	Feet		10/27/23 13:30	1		10/27/23 13:30	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		10/27/23 13:30	1		10/27/23 13:30	FIELD	Field*
Oxidation Reduction Potential	-15.0	mV		10/27/23 13:30	1	-500	10/27/23 13:30	FIELD	Field*
pH, Field Measured	7.01	pH Units		10/27/23 13:30	1		10/27/23 13:30	FIELD	Field*
Specific Conductance, Field Measured	1920	umhos/cm		10/27/23 13:30	1		10/27/23 13:30	FIELD	Field*
Temperature, Field Measured	15.7	°C		10/27/23 13:30	1		10/27/23 13:30	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/27/23 13:30	1	0.00	10/27/23 13:30	FIELD	Field*
General Chemistry - PIA									
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*
Alkalinity Soluble - 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)	1300	mg/L	M	11/01/23 10:19	1	26	11/01/23 11:58	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/02/23 08:47	5	3.0	11/09/23 10:56	TJJ	EPA 6020A
Arsenic	28	ug/L		11/02/23 08:47	5	1.0	11/10/23 09:52	TJJ	EPA 6020A
Barium	220	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:56	TJJ	EPA 6020A
Beryllium	1.4	ug/L		11/02/23 08:47	5	1.0	11/10/23 09:52	TJJ	EPA 6020A
Boron	5000	ug/L		11/02/23 08:47	5	10	11/10/23 09:52	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:56	TJJ	EPA 6020A
Calcium	230	mg/L		11/02/23 08:47	5	0.20	11/09/23 10:56	TJJ	EPA 6020A
Chromium	37	ug/L		11/02/23 08:47	5	4.0	11/09/23 10:56	TJJ	EPA 6020A
Cobalt	24	ug/L		11/02/23 08:47	5	2.0	11/09/23 10:56	TJJ	EPA 6020A
Lead	34	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:56	TJJ	EPA 6020A
Magnesium	90	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:56	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/02/23 08:47	5	0.20	11/09/23 10:56	TJJ	EPA 6020A
Molybdenum	9.4	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:56	TJJ	EPA 6020A
Potassium	4.2	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:56	TJJ	EPA 6020A



Pace Analytical Services, LLC

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ANALYTICAL RESULTS

Sample: GJ04997-11

Name: OR02

Matrix: Ground Water - Grab

Sampled: 10/27/23 13:30

Received: 10/27/23 16:49

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	3.1	ug/L		11/02/23 08:47	5	1.0	11/14/23 11:25	KMC	EPA 6020A
Sodium	100	mg/L	Q4	11/02/23 08:47	5	0.10	11/09/23 10:56	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:56	TJJ	EPA 6020A
Lithium	0.023	mg/L		11/02/23 08:47	1	0.020	11/06/23 10:12	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04997-14
Name: OM01
Matrix: Ground Water - Grab

Sampled: 10/27/23 13:40
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	30	mg/L		10/28/23 06:03	5	5.0	10/28/23 06:03	CRD	EPA 300.0 REV 2.1
Sulfate	1800	mg/L		10/28/23 06:22	250	250	10/28/23 06:22	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.42	Feet		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Dissolved oxygen, Field	2.2	mg/L		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Oxidation Reduction Potential	-33.0	mV		10/27/23 13:40	1	-500	10/27/23 13:40	FIELD	Field*
pH, Field Measured	6.80	pH Units		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Specific Conductance, Field Measured	3590	umhos/cm		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Temperature, Field Measured	16.0	°C		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Temperature, Field Measured	60.8	°F		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Turbidity, Field Measured	209	NTU		10/27/23 13:40	1	0.00	10/27/23 13:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	540	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*
Fluoride	< 0.250	mg/L		11/13/23 10:56	1	0.250	11/13/23 10:56	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3500	mg/L		11/01/23 13:44	1	26	11/01/23 15:44	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/02/23 08:47	5	3.0	11/09/23 11:34	TJJ	EPA 6020A
Arsenic	5.3	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:19	TJJ	EPA 6020A
Barium	120	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:34	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:19	TJJ	EPA 6020A
Boron	210	ug/L		11/02/23 08:47	5	10	11/10/23 10:19	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:34	TJJ	EPA 6020A
Calcium	590	mg/L		11/02/23 08:47	100	4.0	11/10/23 10:59	TJJ	EPA 6020A
Chromium	13	ug/L		11/02/23 08:47	5	4.0	11/09/23 11:34	TJJ	EPA 6020A
Cobalt	23	ug/L		11/02/23 08:47	5	2.0	11/09/23 11:34	TJJ	EPA 6020A
Lead	6.1	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:34	TJJ	EPA 6020A
Magnesium	250	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:34	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/02/23 08:47	5	0.20	11/09/23 11:34	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:34	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04997-14

Name: OM01

Matrix: Ground Water - Grab

Sampled: 10/27/23 13:40

Received: 10/27/23 16:49

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	1.9	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:34	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:19	TJJ	EPA 6020A
Sodium	28	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:34	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:34	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/02/23 08:47	1	0.020	11/06/23 10:36	BRS	EPA 6010B



ANALYTICAL RESULTS

Sample: GJ04997-18

Name: OM01 FD

Matrix: Ground Water - Field Duplicate

Sampled: 10/27/23 13:40

Received: 10/27/23 16:49

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	30	mg/L		10/28/23 07:57	5	5.0	10/28/23 07:57	CRD	EPA 300.0 REV 2.1
Sulfate	1800	mg/L		10/28/23 08:15	250	250	10/28/23 08:15	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.42	Feet		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Dissolved oxygen, Field	2.2	mg/L		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Oxidation Reduction Potential	-33.0	mV		10/27/23 13:40	1	-500	10/27/23 13:40	FIELD	Field*
pH, Field Measured	6.80	pH Units		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Specific Conductance, Field Measured	3590	umhos/cm		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Temperature, Field Measured	16.0	°C		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Temperature, Field Measured	60.8	°F		10/27/23 13:40	1		10/27/23 13:40	FIELD	Field*
Turbidity, Field Measured	209	NTU		10/27/23 13:40	1	0.00	10/27/23 13:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	500	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*
Fluoride	< 0.250	mg/L		11/13/23 11:01	1	0.250	11/13/23 11:01	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3500	mg/L		11/01/23 13:44	1	26	11/01/23 15:44	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/02/23 08:47	5	3.0	11/09/23 11:38	TJJ	EPA 6020A
Arsenic	4.8	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:48	TJJ	EPA 6020A
Barium	110	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:38	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:48	TJJ	EPA 6020A
Boron	210	ug/L		11/02/23 08:47	5	10	11/10/23 10:48	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:38	TJJ	EPA 6020A
Calcium	600	mg/L		11/02/23 08:47	100	4.0	11/10/23 11:03	TJJ	EPA 6020A
Chromium	11	ug/L		11/02/23 08:47	5	4.0	11/09/23 11:38	TJJ	EPA 6020A
Cobalt	23	ug/L		11/02/23 08:47	5	2.0	11/09/23 11:38	TJJ	EPA 6020A
Lead	5.6	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:38	TJJ	EPA 6020A
Magnesium	250	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:38	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/02/23 08:47	5	0.20	11/09/23 11:38	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:38	TJJ	EPA 6020A



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ANALYTICAL RESULTS

Sample: GJ04997-18

Name: OM01 FD

Matrix: Ground Water - Field Duplicate

Sampled: 10/27/23 13:40

Received: 10/27/23 16:49

PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	1.5	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:38	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:48	TJJ	EPA 6020A
Sodium	29	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:38	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:38	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/02/23 08:47	1	0.020	11/06/23 10:53	BRS	EPA 6010B



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B346859 - SW 3015 - EPA 6010B</u>									
Blank (B346859-BLK1)				Prepared: 10/19/23 Analyzed: 10/25/23					
Lithium	< 0.020	mg/L							
LCS (B346859-BS1)				Prepared: 10/19/23 Analyzed: 10/25/23					
Lithium	0.558	mg/L		0.5556		101	80-120		
Matrix Spike (B346859-MS1)				Prepared: 10/19/23 Analyzed: 10/25/23					
Lithium	0.556	mg/L		0.5556	ND	100	75-125		
Matrix Spike Dup (B346859-MSD1)				Prepared: 10/19/23 Analyzed: 10/25/23					
Lithium	0.560	mg/L		0.5556	ND	101	75-125	0.8	20
<u>Batch B346859 - SW 3015 - EPA 6020A</u>									
Blank (B346859-BLK1)				Prepared & Analyzed: 10/19/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B346859-BS1)				Prepared & Analyzed: 10/19/23					
Antimony	548	ug/L		555.6		99	80-120		
Arsenic	532	ug/L		555.6		96	80-120		
Barium	529	ug/L		555.6		95	80-120		
Beryllium	523	ug/L		555.6		94	80-120		
Boron	515	ug/L		555.6		93	80-120		
Cadmium	530	ug/L		555.6		95	80-120		
Calcium	5.69	mg/L		5.556		102	80-120		
Chromium	534	ug/L		555.6		96	80-120		
Cobalt	554	ug/L		555.6		100	80-120		
Lead	533	ug/L		555.6		96	80-120		
Magnesium	5.73	mg/L		5.556		103	80-120		
Mercury	50.2	ug/L		55.56		90	80-120		
Molybdenum	528	ug/L		555.6		95	80-120		
Potassium	5.76	mg/L		5.556		104	80-120		
Selenium	552	ug/L		555.6		99	80-120		
Sodium	5.58	mg/L		5.556		100	80-120		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B346859-BS1)				Prepared & Analyzed: 10/19/23					
Thallium	544	ug/L		555.6		98	80-120		
Matrix Spike (B346859-MS1)				Sample: GJ03182-01		Prepared & Analyzed: 10/19/23			
Antimony	561	ug/L		555.6	ND	101	75-125		
Arsenic	543	ug/L		555.6	ND	98	75-125		
Barium	705	ug/L		555.6	146	101	75-125		
Beryllium	534	ug/L		555.6	ND	96	75-125		
Boron	599	ug/L		555.6	16.0	105	75-125		
Cadmium	542	ug/L		555.6	ND	98	75-125		
Calcium	108	mg/L		5.556	102	108	75-125		
Chromium	541	ug/L		555.6	ND	97	75-125		
Cobalt	554	ug/L		555.6	ND	100	75-125		
Lead	540	ug/L		555.6	0.300	97	75-125		
Magnesium	57.6	mg/L		5.556	52.7	88	75-125		
Mercury	54.7	ug/L		55.56	ND	98	75-125		
Molybdenum	552	ug/L		555.6	1.79	99	75-125		
Potassium	6.63	mg/L		5.556	0.725	106	75-125		
Selenium	566	ug/L		555.6	1.31	102	75-125		
Sodium	12.9	mg/L		5.556	7.28	101	75-125		
Thallium	557	ug/L		555.6	ND	100	75-125		
Matrix Spike Dup (B346859-MSD1)				Sample: GJ03182-01		Prepared & Analyzed: 10/19/23			
Antimony	551	ug/L		555.6	ND	99	75-125	2	20
Arsenic	530	ug/L		555.6	ND	95	75-125	2	20
Barium	696	ug/L		555.6	146	99	75-125	1	20
Beryllium	514	ug/L		555.6	ND	92	75-125	4	20
Boron	592	ug/L		555.6	16.0	104	75-125	1	20
Cadmium	536	ug/L		555.6	ND	97	75-125	1	20
Calcium	106	mg/L		5.556	102	78	75-125	2	20
Chromium	535	ug/L		555.6	ND	96	75-125	1	20
Cobalt	544	ug/L		555.6	ND	98	75-125	2	20
Lead	522	ug/L		555.6	0.300	94	75-125	3	20
Magnesium	57.1	mg/L		5.556	52.7	79	75-125	0.9	20
Mercury	52.2	ug/L		55.56	ND	94	75-125	5	20
Molybdenum	542	ug/L		555.6	1.79	97	75-125	2	20
Potassium	6.50	mg/L		5.556	0.725	104	75-125	2	20
Selenium	557	ug/L		555.6	1.31	100	75-125	2	20
Sodium	12.7	mg/L		5.556	7.28	98	75-125	1	20
Thallium	533	ug/L		555.6	ND	96	75-125	4	20
<u>Batch B346878 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B346878-MS1)				Sample: GJ03182-01		Prepared & Analyzed: 10/18/23			
Sulfate	1.00E9	mg/L	Q4	1.500	14.1	NR	80-120		
Chloride	6.7	mg/L		1.500	5.3	93	80-120		
Fluoride	1.49	mg/L		1.500	ND	99	80-120		
Matrix Spike Dup (B346878-MSD1)				Sample: GJ03182-01		Prepared & Analyzed: 10/18/23			
Sulfate	1.00E9	mg/L	Q4	1.500	14.1	NR	80-120	0	20
Fluoride	1.52	mg/L		1.500	ND	102	80-120	2	20
Chloride	6.5	mg/L		1.500	5.3	83	80-120	2	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B346913 - No Prep - SM 2540C</u>									
Blank (B346913-BLK1)				Prepared & Analyzed: 10/19/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B346913-BS1)				Prepared & Analyzed: 10/19/23					
Solids - total dissolved solids (TDS)	913	mg/L		1000		91	84.9-109		
Duplicate (B346913-DUP1)				Prepared & Analyzed: 10/19/23					
Solids - total dissolved solids (TDS)	920	mg/L			930			1	5
Duplicate (B346913-DUP2)				Prepared & Analyzed: 10/19/23					
Solids - total dissolved solids (TDS)	< 17	mg/L			ND				5
<u>Batch B347107 - SW 3015 - EPA 6010B</u>									
Blank (B347107-BLK1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Lithium	< 0.020	mg/L							
LCS (B347107-BS1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Lithium	0.563	mg/L		0.5556		101	80-120		
Matrix Spike (B347107-MS1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Lithium	0.578	mg/L		0.5556	0.00626	103	75-125		
Matrix Spike Dup (B347107-MSD1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Lithium	0.549	mg/L		0.5556	0.00626	98	75-125	5	20
<u>Batch B347107 - SW 3015 - EPA 6020A</u>									
Blank (B347107-BLK1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B347107-BS1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Antimony	560	ug/L		555.6		101	80-120		
Arsenic	508	ug/L		555.6		91	80-120		
Barium	551	ug/L		555.6		99	80-120		
Beryllium	517	ug/L		555.6		93	80-120		
Boron	518	ug/L		555.6		93	80-120		
Cadmium	504	ug/L		555.6		91	80-120		
Calcium	5.61	mg/L		5.556		101	80-120		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B347107-BS1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Chromium	574	ug/L		555.6		103	80-120		
Cobalt	559	ug/L		555.6		101	80-120		
Lead	538	ug/L		555.6		97	80-120		
Magnesium	5.79	mg/L		5.556		104	80-120		
Mercury	50.4	ug/L		55.56		91	80-120		
Molybdenum	490	ug/L		555.6		88	80-120		
Potassium	5.80	mg/L		5.556		104	80-120		
Selenium	549	ug/L		555.6		99	80-120		
Sodium	5.71	mg/L		5.556		103	80-120		
Thallium	538	ug/L		555.6		97	80-120		
Matrix Spike (B347107-MS1)				Sample: GJ03740-01		Prepared: 10/23/23 Analyzed: 10/25/23			
Antimony	571	ug/L		555.6	ND	103	75-125		
Arsenic	529	ug/L		555.6	1.90	95	75-125		
Barium	610	ug/L		555.6	50.0	101	75-125		
Beryllium	529	ug/L		555.6	ND	95	75-125		
Boron	618	ug/L		555.6	80.6	97	75-125		
Cadmium	518	ug/L		555.6	ND	93	75-125		
Calcium	206	mg/L		5.556	201	88	75-125		
Chromium	568	ug/L		555.6	ND	102	75-125		
Cobalt	551	ug/L		555.6	0.517	99	75-125		
Lead	541	ug/L		555.6	ND	97	75-125		
Magnesium	106	mg/L	Q4	5.556	102	73	75-125		
Mercury	53.5	ug/L		55.56	ND	96	75-125		
Molybdenum	517	ug/L		555.6	2.04	93	75-125		
Potassium	8.20	mg/L		5.556	2.38	105	75-125		
Selenium	566	ug/L		555.6	ND	102	75-125		
Sodium	49.9	mg/L		5.556	44.9	91	75-125		
Thallium	544	ug/L		555.6	ND	98	75-125		
Matrix Spike Dup (B347107-MSD1)				Sample: GJ03740-01		Prepared: 10/23/23 Analyzed: 10/25/23			
Antimony	566	ug/L		555.6	ND	102	75-125	0.8	20
Arsenic	526	ug/L		555.6	1.90	94	75-125	0.5	20
Barium	604	ug/L		555.6	50.0	100	75-125	1	20
Beryllium	536	ug/L		555.6	ND	97	75-125	1	20
Boron	636	ug/L		555.6	80.6	100	75-125	3	20
Cadmium	517	ug/L		555.6	ND	93	75-125	0.1	20
Calcium	207	mg/L		5.556	201	110	75-125	0.6	20
Chromium	561	ug/L		555.6	ND	101	75-125	1	20
Cobalt	545	ug/L		555.6	0.517	98	75-125	1	20
Lead	538	ug/L		555.6	ND	97	75-125	0.6	20
Magnesium	106	mg/L	Q4	5.556	102	72	75-125	0.04	20
Mercury	53.7	ug/L		55.56	ND	97	75-125	0.4	20
Molybdenum	513	ug/L		555.6	2.04	92	75-125	0.7	20
Potassium	8.15	mg/L		5.556	2.38	104	75-125	0.7	20
Selenium	565	ug/L		555.6	ND	102	75-125	0.1	20
Sodium	50.1	mg/L		5.556	44.9	94	75-125	0.3	20
Thallium	541	ug/L		555.6	ND	97	75-125	0.5	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<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)				Prepared & Analyzed: 10/24/23					
Solids - total dissolved solids (TDS)	450	mg/L			430			5	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)				Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	555	mg/L			580			4	5
Duplicate (B347379-DUP2)				Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	2690	mg/L			2560			5	5
<u>Batch B347400 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B347400-MS2)				Prepared & Analyzed: 10/25/23					
Chloride	1.0E9	mg/L	Q4	1.500	8.3	NR	80-120		
Matrix Spike Dup (B347400-MSD2)				Prepared & Analyzed: 10/25/23					
Chloride	1.0E9	mg/L	Q4	1.500	8.3	NR	80-120	0	20
<u>Batch B347462 - SW 3015 - EPA 6010B</u>									
Blank (B347462-BLK1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Lithium	< 0.020	mg/L							
LCS (B347462-BS1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Lithium	0.580	mg/L		0.5556		104	80-120		
Matrix Spike (B347462-MS1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Lithium	0.585	mg/L		0.5556	0.0558	95	75-125		
Matrix Spike Dup (B347462-MSD1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Lithium	0.601	mg/L		0.5556	0.0558	98	75-125	3	20
<u>Batch B347462 - SW 3015 - EPA 6020A</u>									
Blank (B347462-BLK1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B347462-BLK1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B347462-BS1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Antimony	538	ug/L		555.6		97	80-120		
Arsenic	533	ug/L		555.6		96	80-120		
Barium	541	ug/L		555.6		97	80-120		
Beryllium	515	ug/L		555.6		93	80-120		
Boron	507	ug/L		555.6		91	80-120		
Cadmium	533	ug/L		555.6		96	80-120		
Calcium	5.48	mg/L		5.556		99	80-120		
Chromium	543	ug/L		555.6		98	80-120		
Cobalt	546	ug/L		555.6		98	80-120		
Lead	556	ug/L		555.6		100	80-120		
Magnesium	5.67	mg/L		5.556		102	80-120		
Mercury	52.0	ug/L		55.56		94	80-120		
Molybdenum	526	ug/L		555.6		95	80-120		
Potassium	5.60	mg/L		5.556		101	80-120		
Selenium	547	ug/L		555.6		98	80-120		
Sodium	5.59	mg/L		5.556		101	80-120		
Thallium	546	ug/L		555.6		98	80-120		
Matrix Spike (B347462-MS1)				Sample: GJ04373-01	Prepared: 10/26/23 Analyzed: 10/31/23				
Antimony	452	ug/L		555.6	1.29	81	75-125		
Arsenic	525	ug/L		555.6	44.0	87	75-125		
Barium	617	ug/L		555.6	101	93	75-125		
Beryllium	576	ug/L		555.6	1.12	104	75-125		
Boron	30600	ug/L		555.6	30500	20	75-125		
Cadmium	528	ug/L		555.6	ND	95	75-125		
Calcium	221	mg/L	Q4	5.556	224	NR	75-125		
Chromium	560	ug/L		555.6	21.9	97	75-125		
Cobalt	537	ug/L		555.6	12.7	94	75-125		
Lead	530	ug/L		555.6	19.4	92	75-125		
Magnesium	98.0	mg/L	Q4	5.556	96.4	30	75-125		
Mercury	51.2	ug/L		55.56	ND	92	75-125		
Molybdenum	575	ug/L		555.6	41.8	96	75-125		
Potassium	13.5	mg/L		5.556	8.61	89	75-125		
Selenium	491	ug/L		555.6	1.04	88	75-125		
Sodium	164	mg/L	Q4	5.556	164	NR	75-125		
Thallium	502	ug/L		555.6	ND	90	75-125		
Matrix Spike Dup (B347462-MSD1)				Sample: GJ04373-01	Prepared: 10/26/23 Analyzed: 10/31/23				
Antimony	480	ug/L		555.6	1.29	86	75-125	6	20
Arsenic	563	ug/L		555.6	44.0	93	75-125	7	20
Barium	649	ug/L		555.6	101	99	75-125	5	20
Beryllium	543	ug/L		555.6	1.12	98	75-125	6	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B347462-MSD1) Sample: GJ04373-01 Prepared: 10/26/23 Analyzed: 11/01/23									
Boron	30600	ug/L		555.6	30500	12	75-125	0.1	20
Cadmium	570	ug/L		555.6	ND	103	75-125	8	20
Calcium	239	mg/L	Q4	5.556	224	281	75-125	8	20
Chromium	601	ug/L		555.6	21.9	104	75-125	7	20
Cobalt	576	ug/L		555.6	12.7	101	75-125	7	20
Lead	560	ug/L		555.6	19.4	97	75-125	6	20
Magnesium	106	mg/L	Q4	5.556	96.4	171	75-125	8	20
Mercury	54.9	ug/L		55.56	ND	99	75-125	7	20
Molybdenum	624	ug/L		555.6	41.8	105	75-125	8	20
Potassium	14.5	mg/L		5.556	8.61	107	75-125	7	20
Selenium	536	ug/L		555.6	1.04	96	75-125	9	20
Sodium	176	mg/L	Q4	5.556	164	215	75-125	7	20
Thallium	533	ug/L		555.6	ND	96	75-125	6	20
Batch B347530 - IC No Prep - EPA 300.0 REV 2.1									
Matrix Spike (B347530-MS1) Sample: GJ04373-01 Prepared & Analyzed: 10/25/23									
Sulfate	1.00E9	mg/L	Q4	1.500	360	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	300	NR	80-120		
Matrix Spike Dup (B347530-MSD1) Sample: GJ04373-01 Prepared & Analyzed: 10/25/23									
Chloride	1.0E9	mg/L	Q4	1.500	300	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	360	NR	80-120	0	20
Batch B347595 - No Prep - SM 2540C									
Blank (B347595-BLK1) Prepared & Analyzed: 10/27/23									
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347595-BS1) Prepared & Analyzed: 10/27/23									
Solids - total dissolved solids (TDS)	970	mg/L		1000		97	84.9-109		
Batch B347621 - No Prep - SM 2540C									
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-DUP1) Sample: GJ04582-03 Prepared & Analyzed: 10/27/23									
Solids - total dissolved solids (TDS)	4240	mg/L			4030			5	5
Duplicate (B347621-DUP2) Sample: GJ04861-01 Prepared & Analyzed: 10/27/23									
Solids - total dissolved solids (TDS)	425	mg/L			425			0	5
Batch B347629 - IC No Prep - EPA 300.0 REV 2.1									
Matrix Spike (B347629-MS2) Sample: GJ04582-01 Prepared & Analyzed: 10/26/23									
Fluoride	3.06	mg/L	Q1	1.500	0.143	194	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	138	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120		
Matrix Spike Dup (B347629-MSD2) Sample: GJ04582-01 Prepared & Analyzed: 10/26/23									
Fluoride	1.61	mg/L	Q2, R	1.500	0.143	98	80-120	62	20
Chloride	1.0E9	mg/L	Q4, R	1.500	16	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4, R	1.500	138	NR	80-120	0	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B347669 - No Prep - SM 2320B 1997</u>									
Duplicate (B347669-DUP1)	Sample: GJ03182-01			Prepared & Analyzed: 10/27/23					
Alkalinity - bicarbonate as CaCO ₃	450	mg/L			438			3	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
<u>Batch B347726 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B347726-MS1)	Sample: GJ04861-11			Prepared & Analyzed: 10/28/23					
Sulfate	1.00E9	mg/L	Q4	1.500	ND	NR	80-120		
Chloride	< 1.0	mg/L	Q1	1.500	ND		80-120		
Fluoride	1.46	mg/L		1.500	ND	97	80-120		
Matrix Spike Dup (B347726-MSD1)	Sample: GJ04861-11			Prepared & Analyzed: 10/28/23					
Sulfate	1.00E9	mg/L	Q4	1.500	ND	NR	80-120	0	20
Fluoride	1.45	mg/L		1.500	ND	97	80-120	0.3	20
Chloride	< 1.0	mg/L	Q2	1.500	ND		80-120		20
<u>Batch B347854 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B347854-MS2)	Sample: GJ04131-02			Prepared & Analyzed: 10/30/23					
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120		
Matrix Spike Dup (B347854-MSD2)	Sample: GJ04131-02			Prepared & Analyzed: 10/30/23					
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120	0	20
<u>Batch B347939 - SW 3015 - EPA 6010B</u>									
Blank (B347939-BLK1)				Prepared: 11/01/23 Analyzed: 11/06/23					
Lithium	< 0.020	mg/L							
LCS (B347939-BS1)				Prepared: 11/01/23 Analyzed: 11/06/23					
Lithium	0.547	mg/L		0.5556		98	80-120		
Matrix Spike (B347939-MS1)	Sample: GJ04582-01			Prepared: 11/01/23 Analyzed: 11/06/23					
Lithium	0.523	mg/L		0.5556	ND	94	75-125		
Matrix Spike Dup (B347939-MSD1)	Sample: GJ04582-01			Prepared: 11/01/23 Analyzed: 11/06/23					
Lithium	0.522	mg/L		0.5556	ND	94	75-125	0.1	20
<u>Batch B347939 - SW 3015 - EPA 6020A</u>									
Blank (B347939-BLK1)				Prepared: 11/01/23 Analyzed: 11/06/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B347939-BLK1)				Prepared: 11/01/23 Analyzed: 11/06/23					
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B347939-BS1)				Prepared: 11/01/23 Analyzed: 11/06/23					
Antimony	554	ug/L		555.6		100	80-120		
Arsenic	548	ug/L		555.6		99	80-120		
Barium	564	ug/L		555.6		101	80-120		
Beryllium	541	ug/L		555.6		97	80-120		
Boron	518	ug/L		555.6		93	80-120		
Cadmium	556	ug/L		555.6		100	80-120		
Calcium	5.67	mg/L		5.556		102	80-120		
Chromium	566	ug/L		555.6		102	80-120		
Cobalt	561	ug/L		555.6		101	80-120		
Lead	561	ug/L		555.6		101	80-120		
Magnesium	5.84	mg/L		5.556		105	80-120		
Mercury	51.2	ug/L		55.56		92	80-120		
Molybdenum	545	ug/L		555.6		98	80-120		
Potassium	5.69	mg/L		5.556		102	80-120		
Selenium	565	ug/L		555.6		102	80-120		
Sodium	5.82	mg/L		5.556		105	80-120		
Thallium	557	ug/L		555.6		100	80-120		
Matrix Spike (B347939-MS1)				Sample: GJ04582-01		Prepared: 11/01/23 Analyzed: 11/06/23			
Antimony	544	ug/L		555.6	ND	98	75-125		
Arsenic	552	ug/L		555.6	2.25	99	75-125		
Barium	608	ug/L		555.6	52.7	100	75-125		
Beryllium	541	ug/L		555.6	ND	97	75-125		
Boron	573	ug/L		555.6	52.9	94	75-125		
Cadmium	555	ug/L		555.6	ND	100	75-125		
Calcium	159	mg/L	Q4	5.556	155	68	75-125		
Chromium	565	ug/L		555.6	ND	102	75-125		
Cobalt	546	ug/L		555.6	6.31	97	75-125		
Lead	549	ug/L		555.6	1.07	99	75-125		
Magnesium	81.7	mg/L	Q4	5.556	77.6	74	75-125		
Mercury	53.0	ug/L		55.56	0.478	95	75-125		
Molybdenum	553	ug/L		555.6	1.15	99	75-125		
Potassium	6.29	mg/L		5.556	0.602	102	75-125		
Selenium	564	ug/L		555.6	ND	102	75-125		
Sodium	20.2	mg/L		5.556	14.9	96	75-125		
Thallium	546	ug/L		555.6	ND	98	75-125		
Matrix Spike Dup (B347939-MSD1)				Sample: GJ04582-01		Prepared: 11/01/23 Analyzed: 11/06/23			
Antimony	541	ug/L		555.6	ND	97	75-125	0.6	20
Arsenic	548	ug/L		555.6	2.25	98	75-125	0.9	20
Barium	604	ug/L		555.6	52.7	99	75-125	0.7	20
Beryllium	544	ug/L		555.6	ND	98	75-125	0.5	20
Boron	578	ug/L		555.6	52.9	95	75-125	0.8	20
Cadmium	552	ug/L		555.6	ND	99	75-125	0.4	20
Calcium	158	mg/L	Q4	5.556	155	55	75-125	0.5	20



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B347939-MSD1)				Sample: GJ04582-01		Prepared: 11/01/23 Analyzed: 11/06/23			
Chromium	561	ug/L	Q4	555.6	ND	101	75-125	0.8	20
Cobalt	543	ug/L		555.6	6.31	97	75-125	0.4	20
Lead	543	ug/L		555.6	1.07	98	75-125	1	20
Magnesium	81.5	mg/L		5.556	77.6	71	75-125	0.2	20
Mercury	52.3	ug/L		55.56	0.478	93	75-125	1	20
Molybdenum	550	ug/L		555.6	1.15	99	75-125	0.5	20
Potassium	6.20	mg/L		5.556	0.602	101	75-125	1	20
Selenium	557	ug/L		555.6	ND	100	75-125	1	20
Sodium	20.2	mg/L		5.556	14.9	96	75-125	0.1	20
Thallium	540	ug/L		555.6	ND	97	75-125	1	20
Batch B347952 - No Prep - SM 2540C									
Blank (B347952-BLK1)				Prepared & Analyzed: 11/01/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347952-BS1)				Prepared & Analyzed: 11/01/23					
Solids - total dissolved solids (TDS)	1030	mg/L		1000		103	84.9-109		
Duplicate (B347952-DUP1)				Sample: GJ04997-11		Prepared & Analyzed: 11/01/23			
Solids - total dissolved solids (TDS)	1400	mg/L	M		1330			5	5
Batch B347965 - No Prep - SM 2320B 1997									
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
Batch B347985 - No Prep - SM 2540C									
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		
Batch B348049 - SW 3015 - EPA 6010B									
Blank (B348049-BLK1)				Prepared: 11/02/23 Analyzed: 11/06/23					
Lithium	< 0.020	mg/L							
LCS (B348049-BS1)				Prepared: 11/02/23 Analyzed: 11/06/23					
Lithium	0.523	mg/L		0.5556		94	80-120		
Matrix Spike (B348049-MS1)				Sample: GJ04997-11		Prepared: 11/02/23 Analyzed: 11/06/23			
Lithium	0.542	mg/L		0.5556	0.0233	93	75-125		
Matrix Spike Dup (B348049-MSD1)				Sample: GJ04997-11		Prepared: 11/02/23 Analyzed: 11/06/23			
Lithium	0.565	mg/L		0.5556	0.0233	98	75-125	4	20
Batch B348049 - SW 3015 - EPA 6020A									
Blank (B348049-BLK1)				Prepared: 11/02/23 Analyzed: 11/09/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B348049-BLK1)				Prepared: 11/02/23 Analyzed: 11/09/23					
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
Blank (B348049-BLK2)				Prepared: 11/02/23 Analyzed: 11/14/23					
Selenium	< 1.0	ug/L							
LCS (B348049-BS1)				Prepared: 11/02/23 Analyzed: 11/09/23					
Antimony	563	ug/L		555.6		101	80-120		
Arsenic	552	ug/L		555.6		99	80-120		
Barium	540	ug/L		555.6		97	80-120		
Beryllium	534	ug/L		555.6		96	80-120		
Boron	500	ug/L		555.6		90	80-120		
Cadmium	532	ug/L		555.6		96	80-120		
Calcium	5.60	mg/L		5.556		101	80-120		
Chromium	548	ug/L		555.6		99	80-120		
Cobalt	544	ug/L		555.6		98	80-120		
Lead	539	ug/L		555.6		97	80-120		
Magnesium	5.60	mg/L		5.556		101	80-120		
Mercury	52.1	ug/L		55.56		94	80-120		
Molybdenum	530	ug/L		555.6		95	80-120		
Potassium	5.47	mg/L		5.556		99	80-120		
Selenium	582	ug/L		555.6		105	80-120		
Sodium	5.59	mg/L		5.556		101	80-120		
Thallium	536	ug/L		555.6		97	80-120		
LCS (B348049-BS4)				Prepared: 11/02/23 Analyzed: 11/14/23					
Selenium	587	ug/L		555.6		106	80-120		
Matrix Spike (B348049-MS1)				Sample: GJ04997-11		Prepared: 11/02/23 Analyzed: 11/09/23			
Antimony	438	ug/L		555.6	0.594	79	75-125		
Arsenic	522	ug/L		555.6	28.5	89	75-125		
Barium	727	ug/L		555.6	219	92	75-125		
Beryllium	514	ug/L		555.6	1.36	92	75-125		
Boron	5440	ug/L		555.6	4970	85	75-125		
Cadmium	529	ug/L		555.6	ND	95	75-125		
Calcium	233	mg/L	Q4	5.556	229	70	75-125		
Chromium	570	ug/L		555.6	36.7	96	75-125		
Cobalt	542	ug/L		555.6	24.4	93	75-125		
Lead	563	ug/L		555.6	33.7	95	75-125		
Magnesium	93.0	mg/L	Q4	5.556	89.6	60	75-125		
Mercury	52.0	ug/L		55.56	0.156	93	75-125		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B348049-MS1) Sample: GJ04997-11 Prepared: 11/02/23 Analyzed: 11/09/23									
Molybdenum	538	ug/L	Q4	555.6	9.36	95	75-125		
Potassium	9.46	mg/L		5.556	4.16	95	75-125		
Selenium	491	ug/L		555.6	3.09	88	75-125		
Sodium	104	mg/L		5.556	101	58	75-125		
Thallium	521	ug/L		555.6	0.422	94	75-125		
Matrix Spike Dup (B348049-MSD1) Sample: GJ04997-11 Prepared: 11/02/23 Analyzed: 11/09/23									
Antimony	413	ug/L	Q2	555.6	0.594	74	75-125	6	20
Arsenic	521	ug/L	Q4	555.6	28.5	89	75-125	0.3	20
Barium	737	ug/L		555.6	219	93	75-125	1	20
Beryllium	501	ug/L		555.6	1.36	90	75-125	3	20
Boron	5330	ug/L		555.6	4970	66	75-125	2	20
Cadmium	533	ug/L		555.6	ND	96	75-125	0.8	20
Calcium	235	mg/L	Q4	5.556	229	108	75-125	0.9	20
Chromium	574	ug/L		555.6	36.7	97	75-125	0.6	20
Cobalt	540	ug/L		555.6	24.4	93	75-125	0.3	20
Lead	557	ug/L		555.6	33.7	94	75-125	1	20
Magnesium	93.8	mg/L		5.556	89.6	76	75-125	0.9	20
Mercury	53.8	ug/L	Q4	55.56	0.156	96	75-125	3	20
Molybdenum	543	ug/L		555.6	9.36	96	75-125	1	20
Potassium	9.90	mg/L		5.556	4.16	103	75-125	5	20
Selenium	482	ug/L		555.6	3.09	86	75-125	2	20
Sodium	104	mg/L		5.556	101	58	75-125	0.002	20
Thallium	521	ug/L		555.6	0.422	94	75-125	0.05	20
<u>Batch B348151 - No Prep - SM 2320B 1997</u>									
Duplicate (B348151-DUP1) Sample: GJ04131-02 Prepared & Analyzed: 11/02/23									
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	350	mg/L			338			4	10
Duplicate (B348151-DUP3) Sample: GJ04373-01 Prepared & Analyzed: 11/02/23									
Alkalinity - bicarbonate as CaCO3	500	mg/L			500			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
<u>Batch B348438 - No Prep - SM 2320B 1997</u>									
Duplicate (B348438-DUP1) Sample: GJ04582-01 Prepared & Analyzed: 11/07/23									
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	525	mg/L			525			0	10
Duplicate (B348438-DUP2) Sample: GJ04582-05 Prepared & Analyzed: 11/07/23									
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	575	mg/L			588			2	10
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 B348569 - No Prep - SM 4500F C 1997</u>									
Matrix Spike (B348569-MS1) Sample: GJ03740-02 Prepared & Analyzed: 11/08/23									
Fluoride	1.25	mg/L		1.000	0.231	102	80-120		
Matrix Spike Dup (B348569-MSD1) Sample: GJ03740-02 Prepared & Analyzed: 11/08/23									



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B348569-MSD1)									
Sample: GJ03740-02				Prepared & Analyzed: 11/08/23					
Fluoride	1.26	mg/L		1.000	0.231	102	80-120	0.2	20
<u>Batch B348781 - No Prep - SM 2320B 1997</u>									
Duplicate (B348781-DUP1)									
Sample: GJ04997-01				Prepared & Analyzed: 11/09/23					
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	362	mg/L	M		325			11	10
Duplicate (B348781-DUP2)									
Sample: GJ04997-11				Prepared & Analyzed: 11/09/23					
Alkalinity - bicarbonate as CaCO ₃	525	mg/L			512			2	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				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.
- 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.
- R Matrix Spike/Matrix Spike Duplicate Failed %Relative Percent Difference criterion.

Certified by: Diane Billings, Project Manager



CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 6 of 10

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 Clibo Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com	Company Name:	Vistra Corp
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:	Daryl Johnson: Robert.Johnson@vistracorp.com	Address:	see Section A
Phone:	(217) 753-8911 Fax:	Project Name:		Quote Reference:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Project Manager:	
				Profile #:	

Section D Requested Client Information		Valid Matrix Codes		Matrix CODE (see valid codes to left)		SAMPLE TYPE (G=GRAB C=COMB)		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Analysis Test		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	Requested Client Information	Valid Matrix Codes	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	Matrix CODE	
1	OM23S	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
2	OM24D	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
3	OM25D	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
4	OM25S	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
5	OR02	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
6	OR03D	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
7	OR03S	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
8	OR04D	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
9	OR05D	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
10	OR06A	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
11	OR11	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
12	OR13D	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
13	OR13S	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
14	OR14S	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
15	OR14S	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	
16	OR18	Drinking Water- DW	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	WV	

Section E Additional Comments		Section F Relinquished By / Affiliation		Section G Date		Section H Time		Section I Accepted By / Affiliation		Section J Date		Section K Time		Section L Temp in °C		Section M Received on		Section N Cooler (Y/N)		Section O Sealed (Y/N)		Section P Intact (Y/N)	
DC-23Q4 Rev 0		[Signature]		10/17/23		1651		[Signature]		10/17/23		1651		16.3		10/17/23		N		N		N	
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		DATE Signed (mm/dd/yyyy):		SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		DATE Signed (mm/dd/yyyy):		SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		DATE Signed (mm/dd/yyyy):		SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		DATE Signed (mm/dd/yyyy):	
[Signature]		Legend R 035		10/17/2023		[Signature]		Legend R 035		10/17/2023		[Signature]		Legend R 035		10/17/2023		[Signature]		Legend R 035		10/17/2023	

CHAIN-OF-CUSTODY / Analytical Request Document

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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:	samantha.daves@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:	
Requested Due Date/TAT:	10 day	Project Name:		Project Manager:	
		Project Number:	2285	Profile #	

Section D Required Client Information		Valid Matrix Codes		Requested Analysis Filtered (Y/N)		REGULATORY AGENCY	
SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		DRINKING WATER DW WASTE WATER WW PRODUCT P SOIL SOLID SL CRUDE OIL CO AIR A OTHER OT TISSUE TS		NPDES UST RCRA OTHER		GROUND WATER DRINKING WATER OTHER	
ITEM #	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED	DATE	TIME	ANALYSIS TEST	Project No. / Lab I.D.
1	G53S			10/17/23	1504		
2	G54L						
3	G54S						
4	G55L			10/17/23	1337		
5	G55S			10/17/23	1335		
6	G56L			10/17/23			
7	G56S						
8	G57L						
9	G57S						
10	G58L						
11	G58S						
12	G59L						
13	G59S						
14	G60L						
15	G60S						
16	G61S						

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)	
PRINT Name of SAMPLER: Logan Ross		10/17/23	
SIGNATURE of SAMPLER:		10/17/23	

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information		Section B Required Project Information		Section C Invoice Information		Page: 2 of 10	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker		
Address	17751 North Ciko 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:			
	Fax:	Project Number:	2285	Profile #			
Requested Due Date/TAT:		10 day					
				REGULATORY AGENCY			
				GROUND WATER		DRINKING WATER	
				NPDES		OTHER	
				UST		RCRA	
				Site Location		IL	
				STATE:		6503182	

[illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A

Section B

Section C

Required Client Information:		Required Project Information:		Invoice Information:	
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:	
	Fax:	Project Number:	2285	Profile #:	
Requested Due Date/TAT:		10 day			

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		Requested Analysis Filtered (Y/N)		Regulatory Agency	
ITEM #	Required Client Information	MATRIX CODE	Valid Matrix Codes	MATRIX CODE	SAMPLE TYPE	COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Requested Analysis Filtered (Y/N)	Regulatory Agency	NPDES	GROUND WATER	RCRA	OTHER	Drinking Water	Project No. / Lab I.D.		
1	BA01																		
2	BA02																		
3	BA02L																		
4	BA03																		
5	BA03L																		
6	BA04																		
7	BA05																		
8	BA06																		
9	G02D																		
10	G02L																		
11	G02S																		
12	G03L																		
13	G03S																		
14	G04L																		
15	G06L																		
16	G06S																		

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

Section C

Page: 1 of 10

Company: Vistra Corp-Duck Creek		Report To: Brian Voelker	Attention: Brian Voelker	REGULATORY AGENCY		
Address: 17751 North Cilco 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	NPDES	GROUND WATER	DRINKING WATER
Email To: <u>Brian.Voelker@VistraCorp.com</u>		Purchase Order No.:	Quote Reference:	UST	RCRA	OTHER
Phone: (217) 753-8911	Fax:	Project Name:	Project Manager:	Site Location	IL	6503740
Requested Due Date/TAT: 10 day		Project Number: 2285	Profile #:	STATE:		AKA

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								$\downarrow$ Analysis Test $\uparrow$ Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		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		BA01																											
2		BA02																											
3		BA02L																											
4		BA03																											
5		BA03L																											
6		BA04																											
7		BA05																											
8		BA06																											
9		G02D																											
10		G02L																											
11		G02S																											
12		G03L																											
13		G03S																											
14		G04L																											
15		G06L																											
16		G06S																											
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS														
DC-23Q4 Rev 0			Joseph R. Ruiz		10/19/23		1642		g4wccj		10/19/23		1642		M.9 Y N Y														
SAMPLER NAME AND SIGNATURE															Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)											
PRINT Name of SAMPLER:																													
SIGNATURE of SAMPLER:																													
															DATE Signed (MM/DD/YYYY): 10/19/23														

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 UST RCRA OTHER Site Location STATE: IL	
---	--	---	--	---	--	---	--

ITEM #	Valid Matrix Codes MATRIX CODE DW WATER WASTE WATER PRODUCT SOIL/SOLID OIL WASTE AIR OTHER TSS	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	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: **Daryl Johnson**
 SIGNATURE of SAMPLER:
 DATE Signed (MM/DD/YYYY): **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 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:
 Profile #

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: 0304131

Requested Analysis Filtered (Y/N)

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTEWATER P SOLIDIFIED S OIL OIL WPE WPE AIR AR 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 Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ SO ₄ 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.
1																							
2																							
3																							
4																							
5																							
6																							
7																							
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9																							
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16																							

Requested Analysis Filtered (Y/N)

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTEWATER P SOLIDIFIED S OIL OIL WPE WPE AIR AR 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 Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ SO ₄ 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.
1																							
2																							
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4																							
5																							
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16																							

Requested Analysis Filtered (Y/N)

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTEWATER P SOLIDIFIED S OIL OIL WPE WPE AIR AR 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 Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ SO ₄ 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.
1																							
2																							
3																							
4																							
5																							
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16																							

Requested Analysis Filtered (Y/N)

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTEWATER P SOLIDIFIED S OIL OIL WPE WPE AIR AR 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 Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ SO ₄ 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.
1																							
2																							
3																							
4																							
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16																							

Requested Analysis Filtered (Y/N)

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTEWATER P SOLIDIFIED S OIL OIL WPE WPE AIR AR 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 Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ SO ₄ 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.
1																							
2																							
3																							
4																							
5																							
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15																							
16																							

Requested Analysis Filtered (Y/N)

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTEWATER P SOLIDIFIED S OIL OIL WPE WPE AIR AR 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 Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ SO ₄ 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.
1																							
2																							
3																							
4																							
5																							

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 Cicero 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: G304131	
---	--	--	--	--	--	---	--

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	Residual Chlorine (Y/N)	Project No./ Lab I.D.								
	MATRIX	CODE	DRAINING WATER DW	WATER WT			WASTE WATER WW	PRODUCT P			SOIL/SOLID SL	OIL OL	WPE	WASTE WA	OTHER OT	TISSUE TS	Unpreserved	H ₂ SO ₄	HNO ₃	HCl				NaOH	Na ₂ S ₂ O ₃	Methanol	Other				
1																															
2																															
3																															
4																															
5																															
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14																															
15																															
16																															

ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION 		DATE 10/23/23	TIME 1739	ACCEPTED BY / AFFILIATION 		DATE 10/23/23	TIME 1734	Temp in °C 1.4	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.

Page: 5 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker
Address:	17751 North Cilco Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com
Email To:	Brian.Voelker@VistraCorp.com	Address:	see Section A
Phone: (217) 753-8911	Fax:	Quote Reference:	
Requested Due Date/TAT:	10 day	Project Manager:	
		Profile #:	

Section B Required Project Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

Section C Requested Analysis:

NPDES	GROUND WATER	RCRA	DRINKING WATER	OTHER
UST				
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		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)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on	Custody	Sealed	Intact (Y/N)
DC-23Q4 Rev 0		10/23/23	1734		10/23/23	1734	1.0	Y	N	Y	Y

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER:
 SIGNATURE of SAMPLER:
 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:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Clico 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	Fax:	Project Name:		Project Manager:	
Requested Due Date/TAT:		Project Number:	2285	Profile #:	

REGULATORY AGENCY	
NPDES	GROUND WATER
UST	RCRA
Site Location	OTHER
STATE:	IL
GJ04131	

ITEM #	Section D Required Client Information		Valid Matrix Codes		COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (*** valid codes to left)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓ Y/N ↓	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	MATRIX	CODE	DRINKING WATER	WATER	WASTE WATER	PRODUCT							SOIL/SOLID	OIL	WIPE	AIR	OTHER	TISSUE	Unpreserved	H ₂ SO ₄		HNO ₃	HCl	NaOH	Na ₂ O ₂	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
DC-23Q4 Rev 0			10/23/23	1730		10/23/23	1734	Temp in °C	1.4
								Received on	Y
								Custody	N
								Sealed	N
								Intact (Y/N)	Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	DATE Signed: 10/23/23
SIGNATURE of SAMPLER:	(MM/DD/YY): 10/23/23

6J04373 ~~SB~~

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 10					
Company: Vistra Corp-Duck Creek						Report To: Brian Voelker						Attention: Brian Voelker											
Address: 17751 North Cilco Rd Canton, IL 61520						Copy To: Sam Davies; samantha.davies@vistracorp.com Daryl Johnson; Robert.Johnson@vistracorp.com						Company Name: Vistra Corp Address: see Section A											
Email To: Brian.Voelker@VistraCorp.com						Purchase Order No.:						Quote Reference:											
IPhone: (217) 753-8911 Fax:						Project Name:						Project Manager:											
Requested Due Date/TAT: 10 day						Project Number: 2285						Profile #:											
												NPDES				GROUND WATER				DRINKING WATER			
												UST				RCRA				OTHER			
												Site Location				IL				STATE:			

[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: 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: (217) 753-8911 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> Address: <u>Daryl Johnson: 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 #: Requested Analysis Filtered (Y/N)	
REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location STATE: IL					

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WW WASTE WATER WP PRODUCT P SOIL/SOLID SL OIL OL WIPE WIP 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 O ₃ Methanol Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.
				DATE	TIME															
1	OM23S																			
2	OM24D																			
3	OM25D																			
4	OM25S																			
5	OR02																			
6	OR03D																			
7	OR03S																			
8	OR04D																			
9	OR05D																			
10	OR06A																			
11	OR11																			
12	OR13D																			
13	OR13S																			
14	OR14D																			
15	OR14S																			
16	OR18																			

ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION 	DATE 10/24/23	TIME 1634	ACCEPTED BY / AFFILIATION [Signature]	DATE 10/24/23	TIME 1634	Temp in °C 5.3	Received on Y	Custody Sealed N	Cooler (Y/N) Y	Samples Intact (Y/N) Y
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <u>Aaron Pemberton</u> SIGNATURE of SAMPLER:  DATE Signed (MM/DD/YY): <u>10/24/23</u>												

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: <u>Vistra Corp-Duck Creek</u> Address: <u>17751 North Cicco Rd</u> <u>Canton, IL 61520</u> Email To: <u>Brian.Voelker@VistraCorp.com</u> Phone: <u>(217) 753-8911</u> Fax: _____ Requested Due Date/TAT: 10 day		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 #: _____	
REGULATORY AGENCY NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER ☐		Site Location STATE: <u>IL</u>			

Section D Required Client Information		Valid Matrix Codes MATRIX CODE DW DRINKING WATER WT WASTE WATER WW WASTEWATER P PRODUCT SL SOLID OL OIL WPE WASTE WATER P AIR OTHER T TISSUE										MATRIX CODE (see valid codes to left)		SAMPLE TYPE (G=GRAB C=COMP)		COLLECTED DATE TIME		SAMPLE TEMP AT COLLECTION		Preservatives Y/N Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ SO ₃ Methanol Other ↓ Analysis Test ↓										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.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION 	DATE <u>10/24/23</u>	TIME <u>1634</u>	ACCEPTED BY / AFFILIATION 	DATE <u>10/24/23</u>	TIME <u>1639</u>	Temp in °C <u>5.3</u>	Received on Y	Custody Sealed (Y/N) N	Samples Intact (Y/N) Y
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The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 10 of 10

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 Cilco 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	
Phone:	(217) 753-8911	Project Name:		Reference:	
	Fax:			Project	
				Manager:	
		Project Number:	2285	Profile #	
Requested Due Date/TAT:		10 day			

[illegible]

88

subskin

6204582

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		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:	
Fax:		Project Number: 2285		Profile #:	
Requested Due Date/TAT: 10 day					

Section B Required Project Information:

Regulatory Agency	
NPDES	GROUND WATER
UST	RCRA
Site Location	OTHER
STATE:	IL

Section C Requested Analysis Filtered (Y/N)

ITEM #	Valid Matrix Codes	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED	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 (Y/N)	Samples Intact (Y/N)
1	L103																			
2	OM01																			
3	OM04S				10/25/23	10:15		11	X	X										
4	OM05S																			
5	OM07																			
6	OM08																			
7	OM09																			
8	OM10																			
9	OM12																			
10	OM15																			
11	OM16																			
12	OM17																			
13	OM21				10/25/23	15:38		11	X	X										
14	OM22D																			
15	OM22S																			
16	OM23D																			

Section D Additional Comments

DC-23Q4 Rev 0	
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Section E Sampler Name and Signature

PRINT Name of SAMPLER: Aaron Rembert	
SIGNATURE of SAMPLER: [Signature]	
DATE Signed (MM/DD/YYYY): 10/25/23	

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:		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		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:	
Fax:		Project Number: 2285		Profile #:	
Requested Due Date/TAT: 10 day					

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)		Regulatory Agency	
ITEM #	Sample ID (A-Z, 0-9 / -)	Matrix	Code	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
1	OM23S	DRINKING WATER	DW																		
2	OM24D	WASTE WATER	WW																		
3	OM25D	PRODUCT	P																		
4	OM25S	SOL/SOLID	SL																		
5	OR02	OIL	OL																		
6	OR03D	WIPE	WP																		
7	OR03S	AIR	AK																		
8	OR04D	OTHER	OT																		
9	OR05D	TISSUE	TS																		
10	OR06A																				
11	OR11																				
12	OR13D																				
13	OR13S																				
14	OR14D																				
15	OR14S																				
16	OR18																				
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		DATE		TIME		DATE		TIME	
DC-23Q4 Rev 0		<i>[Signature]</i>		10/25/23		1656		<i>[Signature]</i>		10/25/23		1656		10/25/23		1656		10/25/23		1656	
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		DATE Signed (MM/DD/YY):				SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		DATE Signed (MM/DD/YY):									
<i>[Signature]</i>		Agren Rembertson		10/25/23				<i>[Signature]</i>		Agren Rembertson		10/25/23									

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: Visira Corp-Duck Creek		Report To: Brian Voelker		Attention: Brian Voelker	
Address: 17751 North Cilco Rd		Copy To: 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:	
Fax:		Project Number: 2285		Profile #	
Requested Due Date/TAT: 10 day		Site Location: IL			
		STATE:			

Section B Required Project Information:

Regulatory Agency	
NPDES	GROUND WATER
UST	RCRA
	OTHER

Section C Invoice Information:

Requested Analysis Filtered (Y/N)	
Y	N

Section D Required Client Information:

Valid Matrix Codes	
MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTEWATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	MATRIX	CODE	DRINKING WATER	DW			WATER	WT			WASTE WATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW		WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW		WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER	WW	WASTEWATER

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on	Custody Sealed	Cooler (Y/N)	Intact (Y/N)
DC-23Q4 Rev 0		<i>[Signature]</i>	10/25/23	1656	<i>[Signature]</i>	10/25/23	1656	6.0	X	N	N	Y

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: *Aaron Penber*
 SIGNATURE of SAMPLER: *[Signature]*
 DATE Signed (MM/DD/YY): 10/25/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 10 of 13

Section A
Requested Client Information:
 Company: Vistra Corp-Duck Creek
 Address: 17751 North Clito Rd
 Canton, IL 61520
 Email To: Brian.Voelker@VistraCorp.com
 Phone: (217) 753-8911 Fax:
 Requested Due Date/TAT: 10 day

Section B
Requested 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
 STATE: IL

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE GROUND WATER DW WASTE WATER WW PRODUCT P SOL/SOLID SL OIL OL WIFE WP AIR AT 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	Residual Chlorine (Y/N)	Project No./ L.H. I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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ADDITIONAL COMMENTS
 DC-23Q4 Rev 0

RELINQUISHED BY / AFFILIATION
 [Signature] 10/25/23 1656

ACCEPTED BY / AFFILIATION
 [Signature] 10/25/23 1656

SAMPLE CONDITIONS
 Temp in °C: 6.0
 Received on: 10/25/23
 Cooled (Y/N): N
 Sealed (Y/N): N
 Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: [Signature]
 SIGNATURE of SAMPLER: [Signature]
 DATE Signed (MM/DD/YYYY): 10/25/23

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:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco Rd	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.:		Circle Reference:	
Fax:		Project Name:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #	

Valid Matrix Codes		Valid Matrix Codes	
MATRIX	SCOE	MATRIX	SCOE
DRINKING WATER	DW	DRINKING WATER	DW
WASTE WATER	WW	WASTE WATER	WW
PRODUCT	P	PRODUCT	P
SOLID	SL	SOLID	SL
OIL	OL	OIL	OL
WASTE	WT	WASTE	WT
AIR	AR	AIR	AR
OTHER	OT	OTHER	OT
TISSUE	TS	TISSUE	TS

Section D Required Client Information		Section E Required Project Information	
SAMPLE ID (A-Z, 0-9 / -)		SAMPLE ID (A-Z, 0-9 / -)	
Sample IDs MUST BE UNIQUE		Sample IDs MUST BE UNIQUE	

ITEM #	DATE	TIME	COLLECTED	SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (use wild codes to left)	DATE	TIME	ANALYSIS TEST	Y/N	Request 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	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on	Custody	Sealed	Samples
DC-23Q4 Rev 0		10/26/23	1645		10/27/23	715	2.0	4	N		4

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@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 #:	
Valid Matrix Codes		Valid Matrix Codes		Valid Matrix Codes	
MATRIX CODE		MATRIX CODE		MATRIX CODE	
DRINKING WATER DW		DRINKING WATER DW		DRINKING WATER DW	
WASTE WATER WT		WASTE WATER WT		WASTE WATER WT	
PRODUCT P		PRODUCT P		PRODUCT P	
SOLID S		SOLID S		SOLID S	
WIRE WP		WIRE WP		WIRE WP	
AIR AR		AIR AR		AIR AR	
OTHER OT		OTHER OT		OTHER OT	
TISSUE TS		TISSUE TS		TISSUE TS	
SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE	
Section D Required Client Information		Section E Required Project Information		Section F Requested Analysis	
Valid Matrix Codes		Valid Matrix Codes		Valid Matrix Codes	
MATRIX CODE		MATRIX CODE		MATRIX CODE	
DRINKING WATER DW		DRINKING WATER DW		DRINKING WATER DW	
WASTE WATER WT		WASTE WATER WT		WASTE WATER WT	
PRODUCT P		PRODUCT P		PRODUCT P	
SOLID S		SOLID S		SOLID S	
WIRE WP		WIRE WP		WIRE WP	
AIR AR		AIR AR		AIR AR	
OTHER OT		OTHER OT		OTHER OT	
TISSUE TS		TISSUE TS		TISSUE TS	
SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE	
Section G Requested Analysis		Section H Requested Analysis		Section I Requested Analysis	
MATRIX CODE		MATRIX CODE		MATRIX CODE	
DRINKING WATER DW		DRINKING WATER DW		DRINKING WATER DW	
WASTE WATER WT		WASTE WATER WT		WASTE WATER WT	
PRODUCT P		PRODUCT P		PRODUCT P	
SOLID S		SOLID S		SOLID S	
WIRE WP		WIRE WP		WIRE WP	
AIR AR		AIR AR		AIR AR	
OTHER OT		OTHER OT		OTHER OT	
TISSUE TS		TISSUE TS		TISSUE TS	
SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE	
Section J Requested Analysis		Section K Requested Analysis		Section L Requested Analysis	
MATRIX CODE		MATRIX CODE		MATRIX CODE	
DRINKING WATER DW		DRINKING WATER DW		DRINKING WATER DW	
WASTE WATER WT		WASTE WATER WT		WASTE WATER WT	
PRODUCT P		PRODUCT P		PRODUCT P	
SOLID S		SOLID S		SOLID S	
WIRE WP		WIRE WP		WIRE WP	
AIR AR		AIR AR		AIR AR	
OTHER OT		OTHER OT		OTHER OT	
TISSUE TS		TISSUE TS		TISSUE TS	
SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE	
Section M Requested Analysis		Section N Requested Analysis		Section O Requested Analysis	
MATRIX CODE		MATRIX CODE		MATRIX CODE	
DRINKING WATER DW		DRINKING WATER DW		DRINKING WATER DW	
WASTE WATER WT		WASTE WATER WT		WASTE WATER WT	
PRODUCT P		PRODUCT P		PRODUCT P	
SOLID S		SOLID S		SOLID S	
WIRE WP		WIRE WP		WIRE WP	
AIR AR		AIR AR		AIR AR	
OTHER OT		OTHER OT		OTHER OT	
TISSUE TS		TISSUE TS		TISSUE TS	
SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE	
Section P Requested Analysis		Section Q Requested Analysis		Section R Requested Analysis	
MATRIX CODE		MATRIX CODE		MATRIX CODE	
DRINKING WATER DW		DRINKING WATER DW		DRINKING WATER DW	
WASTE WATER WT		WASTE WATER WT		WASTE WATER WT	
PRODUCT P		PRODUCT P		PRODUCT P	
SOLID S		SOLID S		SOLID S	
WIRE WP		WIRE WP		WIRE WP	
AIR AR		AIR AR		AIR AR	
OTHER OT		OTHER OT		OTHER OT	
TISSUE TS		TISSUE TS		TISSUE TS	
SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE	
Section S Requested Analysis		Section T Requested Analysis		Section U Requested Analysis	
MATRIX CODE		MATRIX CODE		MATRIX CODE	
DRINKING WATER DW		DRINKING WATER DW		DRINKING WATER DW	
WASTE WATER WT		WASTE WATER WT		WASTE WATER WT	
PRODUCT P		PRODUCT P		PRODUCT P	
SOLID S		SOLID S		SOLID S	
WIRE WP		WIRE WP		WIRE WP	
AIR AR		AIR AR		AIR AR	
OTHER OT		OTHER OT		OTHER OT	
TISSUE TS		TISSUE TS		TISSUE TS	
SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE		SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE	
Section V Requested Analysis		Section W Requested Analysis		Section X Requested Analysis	
MATRIX CODE		MATRIX CODE		MATRIX CODE	
DRINKING WATER DW		DRINKING WATER DW		DRINKING WATER DW	
WASTE WATER WT		WASTE WATER WT		WASTE WATER WT	
PRODUCT P		PRODUCT P		PRODUCT P	
SOLID S		SOLID S		SOLID S	
WIRE WP		WIRE WP		WIRE WP	
AIR AR		AIR AR		AIR AR	
OTHER OT		OTHER			

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A

Section A
Required Client Information:

Section B

Section B
Required Project Information:

Section C

Section C
Invoice Information:

Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com	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:		Project #	
Requested Due Date/TAT:	10 day	Project Number:	2285	Site Location	IL
			STATE:		
			RCRA		
			NPDES		
			OTHER		
			GTOUSK1		
			513B		

[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 Report To: Brian Voelker						Section C Invoice Information:																																			
Company:			Vistra Corp-Duck Creek			Copy To:			Sam Davies: samantha.davies@vistracorp.com			Attention:			Brian Voelker																																
Address:			17751 North Cicco Rd Canton, IL 61520						Daryl Johnson: Robert.Johnson@vistracorp.com			Company Name:			Vistra Corp																																
Email To:			Brian.Voelker@VistraCorp.com			Purchase Order No.:						Quote Reference			Address:			see Section A																													
Phone:			(217) 753-8911			Project Name:						Project Manager:																																			
Fax:						Project Number:			2285			Profile #																																			
Requested Due Date/TAT:						10 day						Site Location						STATE:																													
												IL						GJD4821 SAB																													
												REGULATORY AGENCY																																			
												NPOES												GROUND WATER												DRINKING WATER											
																								RCRA												OTHER											
																								UST																							

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		Project No./ Lab I.D.	
	MATRIX	CODE	DRINKING WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER	WASTE WATER
1	OM23S																					
2	OM24D																					
3	OM25D																					
4	OM25S																					
5	OR02																					
6	OR03D																					
7	OR03S																					
8	OR04D																					
9	OR05D																					
10	OR06A																					
11	OR11																					
12	OR13D																					
13	OR13S																					
14	OR14D																					
15	OR14S																					
16	OR18																					

DC-23Q4 Rev 0

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION

DATE

TIME

ACCEPTED BY / AFFILIATION

DATE

TIME

TEMP IN °C

RECEIVED ON

COOLER (Y/N)

CUSTODY

SEALED (Y/N)

SAMPLES

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 Cicco 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.:	
Requested Due Date/TAT:	10 day	Project Name:	
		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
UST	RCRA
Other	DRINKING WATER
Site Location	IL
STATE:	303

ITEM #	Valid Matrix Codes MATRIX CODE DW WT WASTE WATER P SL SOIL/SOLID OIL MINE AIR OTHER TISSUE	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	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	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		10/26/23	15:30		10/27/23	7:15	20.0	4	Y	Y	Y

SAMPLER NAME AND SIGNATURE	DATE SIGNED
PRINT Name of SAMPLER:	10/26/23
SIGNATURE of SAMPLER:	10/26/23

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:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Visira Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Clibo 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	Fax:	Project Name:		Quote 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		# OF CONTAINERS		Preservatives		Analysis Test		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	Sample ID (A-Z, 0-9, / -)	Valid Matrix Codes	CODE	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
1	XTPW02	DRINKING WATER	DW	10/12/23	1525			WT	G												
2	Field Blank	WASTE WATER	WW																		
3	12-16 Equipment Blank	WASTE WATER	WW	10/12/23	1458			WT	G												
4	12-16 Equipment Blank	WASTE WATER	WW	10/12/23	1435			WT	G												
5	12-16 Equipment Blank	WASTE WATER	WW	10/12/23	1525			WT	G												
6	12-16 Equipment Blank	WASTE WATER	WW																		
7		WASTE WATER	WW																		
8		WASTE WATER	WW																		
9		WASTE WATER	WW																		
10		WASTE WATER	WW																		
11		WASTE WATER	WW																		
12		WASTE WATER	WW																		
13		WASTE WATER	WW																		
14		WASTE WATER	WW																		
15		WASTE WATER	WW																		
16		WASTE WATER	WW																		

6504999

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: samantha.davies@visiracorp.com	Company Name:	Visira Corp
Email To:	Brian.Voelker@VisiraCorp.com	Purchase Order No.:	Daryl Johnson: Robert.Johnson@visiracorp.com	Address:	see Section A
Phone:	(217) 753-8911	Project Name:		Quota Reference	
Requested Due Date/TAT:	10 day	Project Number:	2285	Project Manager	
				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 DW WASTE WATER
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ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
DC-23Q4 Rev 0			10/27/23	16:09		10/27/23	16:49	Temp in °C	8.0
								Received on	Y
								Custody Sealed	Y
								Cooler (Y/N)	Y
								Samples	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:	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cicero 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.:		Quote Reference	
	Fax:	Project Name:		Project Manager	
Requested Due Date/TAI:	10 day	Project Number:	2285	Profile #	

Section D Required Client Information		Valid Matrix Codes		Matrix Code		Sample Type		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Analysis Test		Requested Analysis Filtered (Y/N)		Regulatory Agency	
ITEM #		DRINKING WATER	WASTE WATER	PRODUCT	WATER	WASTE WATER	WATER	WASTE WATER	DATE	TIME											
1	G53S																				
2	G54L								10/27/23	1338											
3	G54S								10/27/23	1154											
4	G55L																				
5	G55S																				
6	G56L																				
7	G56S																				
8	G57L								10/27/23	1402											
9	G57S																				
10	G58L								10/27/23	1431											
11	G58S																				
12	G59L								10/27/23	1512											
13	G59S																				
14	G60L																				
15	G60S																				
16	G61S																				

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-23Q4 Rev 0		<i>[Signature]</i>	10/27/23	1644	<i>[Signature]</i>	10/27/23	1649

SAMPLER NAME AND SIGNATURE		DATE SIGNED	MODIFY
<i>[Signature]</i>		10/27/23	10/27/23

PRINT Name of SAMPLER:	DATE SIGNED	MODIFY
<i>[Signature]</i>	10/27/23	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:	
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
			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:	
	Fax:			Profile #:	
Requested Due Date/TAT:		10 day		Project Number: 2285	

Section D Required Client Information		Section E Requested Analysis Filtered (Y/N)	
Valid Matrix Codes		Requested Analysis Filtered (Y/N)	
MATRIX	CODE		
Drinking Water	DW		
Waste Water	WW		
Product	P		
Solid	S		
Oil	OL		
Wipe	WP		
Air	AR		
Other	OT		
Tissue	TS		

ITEM #	DATE	TIME	SAMPLE TYPE (G-GRAB C-COMP)	MATRIX CODE (see valid codes to left)	COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Y/N	DATE	TIME	Temp in °C	Received on	Custody	Sealed	Samples
1								Unpreserved	H ₂ SO ₄								
2								HNO ₃									
3								HCl									
4								NaOH									
5								Na ₂ S ₂ O ₃									
6								Methanol									
7								Other									
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		Samples	
DC-23Q4 Rev 0		[Signature]		10/27/23		1644		[Signature]		10/27/23		1644		8.0		7		Y		Y		Y	

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: *Hanson Remington*
 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:	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco 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		Matrix Code		Sample Type (G=GRAB C=COMP)		Collected		Sample Temp at Collection		# of Containers		Preservatives		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
Item #	Sample ID (A-Z, 0-9 / .)	Matrix Code	Valid Matrix Codes	Matrix Code	Sample Type	Collected	Sample Temp at Collection	# of Containers	Preservatives	Requested Analysis Filtered (Y/N)	Project No./ Lab I.D.								
1	OM23S		DRINKING WATER WASTE WATER PRODUCT SOLID WASTE AIR OTHER TSS																
2	OM24D																		
3	OM25D																		
4	OM25S																		
5	OR02																		
6	OR03D																		
7	OR03S																		
8	OR04D																		
9	OR05D																		
10	OR06A																		
11	OR11																		
12	OR13D																		
13	OR13S																		
14	OR14D																		
15	OR14S																		
16	OR18																		

CHAIN-OF-CUSTODY / Analytical Request Document

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

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.:		Quota Reference:	
Phone: (217) 753-8911		Project Name:		Project Manager:	
Fax:		Project Number: 2285		Profile #:	
Requested Due Date/TAT: 10 day					

Section D Required Client Information		Valid Matrix Codes		Section E Requested Analysis Filtered (Y/N)		Requested Analysis Filtered (Y/N)	
SAMPLE ID (A-Z, 0-9 / -)		Sample IDs MUST BE UNIQUE		Y/N		Y/N	
ITEM #		Matrix Code (See valid codes to left)		DATE		TIME	
1		OR19					
2		OR20					
3		P011					
4		P01L					
5		P01S					
6		P02S					
7		P04S					
8		P05D					
9		P05L					
10		P05S					
11		P36D					
12		P36L		10/27/23		1507	
13		P36S				2 X	
14		P37D					
15		P37L		10/27/23		1247	
16		P38L				2 X	
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME	
DC-23Q4 Rev 0		[Signature]		10/27/23		1644	

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YYYY)		SAMPLE CONDITIONS	
[Signature]		10/27/23		Received on	
PRINT Name of SAMPLER:		[Signature]		Temp in °C	
SIGNATURE of SAMPLER:		10/27/23		8.0	
				Custody Sealed	
				Cooler (Y/N)	
				Intact (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: **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
 STATE: **IL**

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTE WATER P PRODUCT P SOL/SOLID SL OIL OL WPE WP AIR AR OTHER OT TSS TS	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test	Residual Chlorine (Y/N)	Project No./ Lab I.D.
						H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other						
1	L103		10/27/23 1340		6	X	X	X										
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: **10/27/23 1644** DATE: **10/27/23 1644** TIME: **10/27/23 1644**

SAMPLER NAME AND SIGNATURE: **10/27/23 1644**

PRINT Name of SAMPLER: **10/27/23 1644**

SIGNATURE of SAMPLER: **10/27/23 1644**

Temp in °C: **8.0**

Received on: **10/27/23**

Custody Sealed: **Y**

Cooler (Y/N): **Y**

Intact (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:	Vistra Corp-Duck Creek	Report To:	Brian Voelker
Address:	17751 North Cicero 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:

Invoice Information:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Guide Reference	
Project Manager	
Profile #	

Section C Requested Analysis Filtered (Y/N)

Requested Analysis Filtered (Y/N)	NPDES	GROUND WATER	DRINKING WATER	OTHER
	UST	RCRA		
	Site Location	IL		
	STATE:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DOMESTIC WATER WASTE WATER PRODUCT OIL WASTE AIR OTHER TSS	MATRIX CODE (see vird codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Y / N	Analysis Test	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.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other														
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 Ice (Y/N)	Custody Sealed (Y/N)	Samples Intact (Y/N)
DC-23Q4 Rev 0		10/27/23	1649		10/27/23	1649	8.0	Y	Y	Y
SAMPLER NAME AND SIGNATURE 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

Page: 10 of 10

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 Cilco Rd Carlton, 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.:		Quote Reference	
Fax:		Project Name:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #	

Section D Required Client Information		Valid Matrix Codes		Section E Requested Analysis Filtered (Y/N)		Requested Analysis Filtered (Y/N)	
ITEM #	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	MATRIX CODE	DATE	TIME	DATE	TIME	Project No./ Lab I.D.
1	XTPW02						
2	Field Blank						
3	0101 FD	WT 6	10/27/23	13:40	DC-845-203	DC-845-201-202	
4	0101 FD	WT 6	10/27/23	15:43	DC-845-205	DC-845-201-202	
5	0101 FD	WT 6	10/27/23	15:40	DC-845-203	DC-845-201-202	
6	0101 FD	WT 6	10/27/23	15:40	DC-845-205	DC-845-201-202	
7	0101 FD	WT 6	10/27/23	15:40	DC-845-203	DC-845-201-202	
8	0101 FD	WT 6	10/27/23	15:40	DC-845-205	DC-845-201-202	
9	0101 FD	WT 6	10/27/23	15:40	DC-845-203	DC-845-201-202	
10	0101 FD	WT 6	10/27/23	15:40	DC-845-205	DC-845-201-202	
11	0101 FD	WT 6	10/27/23	15:40	DC-845-203	DC-845-201-202	
12	0101 FD	WT 6	10/27/23	15:40	DC-845-205	DC-845-201-202	
13	0101 FD	WT 6	10/27/23	15:40	DC-845-203	DC-845-201-202	
14	0101 FD	WT 6	10/27/23	15:40	DC-845-205	DC-845-201-202	
15	0101 FD	WT 6	10/27/23	15:40	DC-845-203	DC-845-201-202	
16	0101 FD	WT 6	10/27/23	15:40	DC-845-205	DC-845-201-202	

Section F Requested Analysis Filtered (Y/N)		Section G Requested Analysis Filtered (Y/N)		Section H Requested Analysis Filtered (Y/N)	
ITEM #	DATE	TIME	DATE	TIME	DATE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

DC-23Q4 Rev 0

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 Chico Rd Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone:	(217) 753-8911
Requested Due Date/TAT:	10 day

Section B

Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
Purchase Order No.:	Daryl Johnson: Robert.Johnson@vistracorp.com
Project Name:	
Project Number:	2285

Section C

Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Project Manager:	
Project #:	

Page: 7 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 (A-Z, 0-9, /, ^) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Project No./Lab I.D.
									H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other								
1	OR 11	OR 11	WTG	11/3/23	1328	2X																	
2	OR 22	OR 22			1211	2X																	
3	OR 11	OR 11			1100	2X																	
4	OR 11	OR 11			1345	2X																	
5	OR 11	OR 11																					
6	OR 11	OR 11																					
7	OR 11	OR 11																					
8	OR 11	OR 11																					
9	OR 11	OR 11																					
10	OR 11	OR 11																					
11	OR 11	OR 11																					
12	OR 11	OR 11																					
13	OR 11	OR 11																					
14	OR 11	OR 11																					
15	OR 11	OR 11																					
16	OR 11	OR 11																					

ADDITIONAL COMMENTS

DC-2304 Rev 0	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	George R. Reed	11/3/23	1523	George R. Reed	11/8/23	1523	Y

SAMPLER NAME AND SIGNATURE	DATE Signed (MM/DD/YY)	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
George R. Reed	11/3/23		Y	N	Y

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 10/18/23 BG	
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	BC
BA02	DC-BA02	205	BAB		1423	13.03	21615636	Y	—	—	—	NOT connected	
BA02L	DC-BA02IL	205	BAB		1425	PUMP	21615682	Y	00.01	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)	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)		
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			Y		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			Y		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		L	1142	25.80	21615634	Y	571.80	Y	M		
OR20	DC-OR20	201-AP1/ 202 2		L	1205	22.30	21615610	Y	565.16	Y	M		L

Notes:

Batt = battery

bmp = below measuring point

ft = feet

H = high

L = low

M = medium

R = replaced

Duck Creek

WELL/SAMPLE POINT **BA06**

Purge Method: Bladder

Date: 10/19/23

Start Time: 1143

Finish/Sample Time: 1309

Well Depth (Bottom) From MP: 24.76 ft

Min. Purge Volume: 1.5 Gal / mL

Depth to Water From MP: 24.76 ft

Total Purge Volume: 1.8 Gal / mL

Water Column Length: 24.76 ft

Well Water Volume: 10/19/23 Gal / L

Total Drawdown: 5.42 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	1208	2710	100	6.59	3200	13.29	-37	0.0	2.9
2	1209	2721	100	6.57	3180	13.30	-37	0.0	3.4
3	1210	2731	100	6.57	3170	13.30	-38	0.0	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	☒	☐
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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - Over Range mg/L

Final DTW: 30.18 ft

Comments

Sampler's Signature: Joseph R. Reed

Duck Creek

WELL/SAMPLE POINT OM01

Purge Method: beiler BG 11/10/23

Date: 10/27/23 Start Time: 1111

Finish/Sample Time: 1150 1340

Well Depth (Bottom) From MP: 27.79 ft

Min. Purge Volume: 9 Gal 0 mL

Depth to Water From MP: 13.42 ft

Total Purge Volume: 9 Gal 0 mL

Water Column Length: 14.37 ft

Well Water Volume: 8.70 Gal / L

Total Drawdown: 13.72 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	1130	96.03	22.22	6.80	3590	16.01	+33	2.18	209
2									
3		BG 11/10/23							
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
	Metals (P, 250mL, HNO3)
	Ammonia (P, 250mL, H2SO4)
	General (P, 500mL)
	TOC (A,V 40mL, H2SO4)

Ferrous Iron - mg/L

Final DTW: 27.14 ft

Comments Insignificant recharge - 1 well volume only take

Let water recharge enough to get unfiltered samples

Sampler's Signature: [Signature]

BG 120

Duck Creek

WELL/SAMPLE POINT **OR02**

Purge Method: Submersible pump

Date: 10/27/23 Start Time: 1208 Finish/Sample Time: 1330

Well Depth (Bottom) From MP: 22.11 ft Min. Purge Volume: 1.5 Gal / L / mL

Depth to Water From MP: 7.01 ft Total Purge Volume: 1.8 Gal / L / mL

Water Column Length: 15.1 ft

Well Water Volume: 9.14 Gal / L Total Drawdown: 0.11 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	1225	7.41	100	7.16	1920	15.71	-20	2.60	>1000
2	1226	7.44	100	7.10	1910	15.78	-11	2.55	>1000
3	1227	7.45	100	7.01	1920	15.68	-15	2.31	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter:

Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☐ Slight ☐ Mod. ☒ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

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

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

Ferrous Iron - 0.292 mg/L

Final DTW: 7.12 ft

Comments

Sampler's Signature:

Joseph R Red

Duck Creek

WELL/SAMPLE POINT OR03D

Purge Method: portable pump w/ lubricated tubing

Date: 10/23/2023 Start Time: 1414 Finish/Sample Time: 1530

Well Depth (Bottom) From MP: 77.77 ft Min. Purge Volume: - Gal / L / mL

Depth to Water From MP: 45.26 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 32.51 ft

Well Water Volume: 14.66 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	1431	46.40	100	7.46	3683.0	22.23	-32.8	9.01	6464.7
2	1433	46.40	100	7.44	3683.7	22.24	-33.9	8.95	6560.3
3	1435	46.40	100	7.45	3683.6	22.25	-29.2	8.89	6675.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

>1000
>1000
>1000
11/10/23
B5

Field Meter: A1600

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) 1000mL
	Ammonia (P,250 mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 3.352 mg/L

Final DTW: 46.40 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM04S

Purge Method: Peristaltic Pump w/ Disinfectant

Date: 10/25/2023

Start Time: 0930

Finish/Sample Time: 1015

Well Depth (Bottom) From MP: 35.85 ft

Min. Purge Volume: - Gal / L / mL

Depth to Water From MP: 21.31 ft

Total Purge Volume: 1000 Gal / L / ml

Water Column Length: 14.54 ft

Well Water Volume: 8.74 Gal (L)

Total Drawdown: 8.69 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	0940	27.00	100	7.66	1890	15.64	7	8.47	17.0
2	0942	27.00	100	7.56	1560	15.23	-3	8.41	29.0
3	0944	27.00	100	7.45	1480	15.20	-2	8.34	22.7
4	0946	27.00	100	7.40	1490	15.14	-1	8.31	25.7
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(11)

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

Ferrous Iron - unknown range mg/L

Final DTW: 30.00 ft

Comments

* below pump possible kink in well
around 29 ft preventing the pump from collecting water
completely. switched to boiler to fill remaining bottles

Sampler's Signature: [Signature]

B33a

Duck Creek

WELL/SAMPLE POINT OR04D

Purge Method: portable pump w/ 1/2 in. cased tubing

Date: 10/24/2023
10/25/23 AP

Start Time: 10:18

Finish/Sample Time: 11:37

Well Depth (Bottom) From MP: 67.98 ft

Min. Purge Volume: - Gal / L / mL

Depth to Water From MP: 21.83 ft

Total Purge Volume: 1800 Gal / L / mL

Water Column Length: 46.15 ft

Well Water Volume: 27.01 Gal / L

Total Drawdown: 0.05 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	1032	21.88	100	6.45	6540	15.45	-28	3.42	71000
2	1034	21.88	100	6.46	6500	15.47	-27	3.37	71000
3	1036	21.88	100	6.47	6410	15.49	-27	3.31	821
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

10/25/23
AP

Field Meter: HO:6a

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 3.957 mg/L

Final DTW: 21.88 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR06A

Purge Method: portable pump with Decksat tubing

Date: 10/26/2023

Start Time: 09:29

Finish/Sample Time: 1440

Well Depth (Bottom) From MP: 25.65 ft

Min. Purge Volume: — Gal / L / mL

Depth to Water From MP: 15.06 ft

Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 10.59 ft

Well Water Volume: 6.40 Gal (L)

Total Drawdown: 0.16 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	1341	15.22	100	6.62	3420	17.31	-30	3.07	418
2	1343	15.22	100	6.62	3430	17.31	-30	3.00	396
3	1345	15.22	100	6.62	3430	17.31	-30	2.93	368
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Ferrous Iron - 5.845 mg/L

Final DTW: 15.22 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM07

Purge Method: portable pump w/ dedicated tubing

Date: 10/26/2023 Start Time: 1050 Finish/Sample Time: 1204

Well Depth (Bottom) From MP: 29.92 ft Min. Purge Volume: ✓ Gal / L / mL

Depth to Water From MP: 13.12 ft Total Purge Volume: 1000 Gal / L / ml

Water Column Length: 16.80 ft

Well Water Volume: 10.16 Gal / 0 Total Drawdown: 1.10 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	1104	14.12	100	6.85	1270	15.79	-67	1.80	22.0
2	1106	14.13	100	6.85	1260	15.68	-66	1.78	8.9
3	1108	14.14	100	6.84	1260	15.63	-63	1.69	10.9
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	✓	
Casing locked/secure		X
Well cap fits securely.	✓	
Good seal/drainage		X
Well has weep holes		X

BOTTLE INFORMATION:

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

(10)

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

Ferrous Iron - 0.065 mg/L

Final DTW: 14.22 ft

Comments

Sampler's Signature: [Signature]

BG

Duck Creek

WELL/SAMPLE POINT OR11

Purge Method: portable pump with dedicated tubing

Date: 10/24/2023 Start Time: 0925 Finish/Sample Time: 1129

Well Depth (Bottom) From MP: 43.85 ft Min. Purge Volume: - Gal / L / mL

Depth to Water From MP: 32.35 ft Total Purge Volume: 1000 Gal / L / ML

Water Column Length: 11.50 ft

Well Water Volume: 6.96 Gal / 0 Total Drawdown: 0.15 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	0940	32.50	100	7.34	1360	15.51	3	5.31	508
2	0942	32.50	100	7.33	1360	15.48	3	5.29	493
3	0944	32.50	100	7.32	1350	15.46	2	5.18	450
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)
323	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
121	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
121	General (P, 500mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
121	Rad (P, 2.5L, HNO3)

(11)
+
(11)

Filtered	
Qty	Bottles
121	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
121	General (P, 500mL) 1000mL
323	TOC (A,V, 40mL, H2SO4)

Ferrous Iron - under range mg/L

Final DTW: 32.50 ft

Comments Field dup bottles here

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR 11

Purge Method: submersible pump

Date: 11/3/23 Start Time: 1223 Finish/Sample Time: 1328

Well Depth (Bottom) From MP: 43.51 ft Min. Purge Volume: 1.5 Gal / L / mL

Depth to Water From MP: 32.26 ft Total Purge Volume: 1.95 Gal / L / mL

Water Column Length: 11.25 ft

Well Water Volume: 6.81 Gal / L Total Drawdown: 0.04 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1238	32.30	130	7.50	1330	12.20	10	1.66	510
2	1239	32.30	130	7.41	1310	12.11	5	1.55	499
3	1240	32.30	130	7.35	1300	12.09	1	1.49	550
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 500mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1+1	General (P, 250 mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - mg/L

Final DTW: 32.30 ft

Comments

Duplicate taken here

Sampler's Signature:

Joseph A Rad

Duck Creek

WELL/SAMPLE POINT OM12

Purge Method: pollubly pump w/ Dedicated Tubing

Date: 10/26/2023 Start Time: 0929 Finish/Sample Time: 1045

Well Depth (Bottom) From MP: 43.19 ft Min. Purge Volume: 4 Gal / L / mL

Depth to Water From MP: 17.98 ft Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 25.21 ft

Well Water Volume: 15.25 Gal (L) Total Drawdown: 1.12 ft

APP 10/26/23

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	0943	19.10	100	6.50	1680	15.94	-27	4.81	716
2	0945	19.10	100	6.50	1680	15.85	-28	4.78	645
3	0947	19.10	100	6.50	161700	15.77	-29	4.72	514
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) <u>1000mL</u>
	Ammonia (P,250mL H2SO4)
1	Rad (P, 2.5L, HNO3)

11

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

Ferrous Iron - Over range mg/L

Final DTW: 19.10 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR13D

Purge Method: portable pump w/ Det:unk 1 7-L bag

Date: 10/26/2023 Start Time: 12:12 Finish/Sample Time: 13:23

Well Depth (Bottom) From MP: 50.23 ft Min. Purge Volume: - Gal / L / mL

Depth to Water From MP: 14.66 ft Total Purge Volume: 1000 Gal / L / mL

Water Column Length: 35.57 ft

Well Water Volume: 21.51 Gal / L Total Drawdown: 0.12 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	12:24	14.78	100	6.84	1910	15.77	-52	3.38	>1000
2	12:26	14.78	100	6.84	1910	15.75	-53	3.33	>1000
3	12:28	14.78	100	6.83	1920	15.74	-53	3.29	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

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

BOTTLE INFORMATION:

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

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

Ferrous Iron - 1.044 mg/L

Final DTW: 14.78 ft

Comments Wasps in well

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT **OR13S**

Purge Method: Submersible

Date: 10/17/23 Start Time: 1007 Finish/Sample Time: 1114

Well Depth (Bottom) From MP: 29.55 ft Min. Purge Volume: 1.0 Gal (L) mL

Depth to Water From MP: 14.74 ft Total Purge Volume: 1.3 Gal (L) mL

Water Column Length: 14.81 ft

Well Water Volume: 8.968 Gal (L) Total Drawdown: 0.01 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	1019	14.75	100	6.05	1930	15.10	35	4.10	213
2	1020	14.75	100	6.08	1910	15.05	29	3.95	207
3	1021	14.75	100	6.10	1900	15.03	20	3.81	210
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Ferrous Iron - 3.853 mg/L

Final DTW: 14.75 ft

Comments

Sampler's Signature: Joseph R Reed

Duck Creek

WELL/SAMPLE POINT OR14D

Purge Method: portable pump w/ Delicate tubing

Date: 10/25/2023 Start Time: 1307 Finish/Sample Time: 1420

Well Depth (Bottom) From MP: 48.78 ft Min. Purge Volume: Gal / L / mL

Depth to Water From MP: 11.99 ft Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 36.79 ft

Well Water Volume: 22.25 Gal / () Total Drawdown: 0.33 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1320	12.32	100	7.07	3140	16.72	-43	2.39	71000
2	1322	12.32	100	7.03	3140	16.73	-43	2.36	71000
3	1324	12.32	100	7.00	3180	16.73	-42	2.32	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	☒	☐
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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 1.659 mg/L

Final DTW: 12.32 ft

Comments

Sampler's Signature: [Signature]

B123

Duck Creek

WELL/SAMPLE POINT OM16

Purge Method: portable pump w/ dedicated tubing

Date: 10/24/2023 Start Time: 1349 Finish/Sample Time: 1503

Well Depth (Bottom) From MP: 43.54 ft Min. Purge Volume: — Gal / L / mL

Depth to Water From MP: 27.10 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 16.44 ft

Well Water Volume: 0.44 Gal / (L) 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	1404	24.90	100	6.72	4090	15.53	-14	2.54	71000
2	1406	30.03	100	6.69	4080	15.49	-15	2.57	71000
3	1408	30.12	100	6.68	4020	15.50	-16	2.53	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	☒	☐
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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - under range mg/L

Final DTW: 32.10 ft

Comments Arts in well

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM 16

Purge Method: Submersible pump

Date: 11/3/23 Start Time: 1000 Finish/Sample Time: 1100

Well Depth (Bottom) From MP: 43.61 ft Min. Purge Volume: 1.5 Gal L mL

Depth to Water From MP: 27.30 ft Total Purge Volume: 1.8 Gal L mL

Water Column Length: 16.31 ft

Well Water Volume: 988 Gal / L Total Drawdown: 0.60 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	1030	28.34	100	6.70	3790	11.44	45	2.29	771
2	1031	28.32	100	6.69	3790	11.45	45	2.20	700
3	1032	28.34	100	6.67	3790	11.44	45	2.13	780
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 500mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL) <u>1000mL</u>
	Ammonia (P, 250mL, H2SO4)
	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - mg/L

Final DTW: 27.90 ft

Comments

Sampler's Signature: Joseph R Rad

Duck Creek

WELL/SAMPLE POINT OM17

Purge Method: portable pump w/ dedicated tubing

Date: 10/24/2023 Start Time: 1302 Finish/Sample Time: 1346

Well Depth (Bottom) From MP: 17.46 ft Min. Purge Volume: — Gal / L / mL

Depth to Water From MP: 15.52 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 1.94 ft

Well Water Volume: 1.17 Gal / (ft) Total Drawdown: 1.46 ft

Reading (Units)	Time	Depth	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1315	15.00	100	6.72	1540	23.73	-33	2.12	545
2	1317	15.00	100	6.72	1550	23.72	-33	2.10	568
3	1319	15.00	100	6.72	1540	23.70	-34	2.07	532
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 500mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)
	TOC (A,V, 40mL, H2SO4)

Ferrous Iron - mg/L

Final DTW: 16.98 ft

Comments * water level below pump ran out of water
after reads, tried sampling with bailer with no success
well dried up

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR19

Purge Method: 1300

*Portable Pump
w/ Dedicated Tubing*

Date: 10/25/2023 Start Time: 1146

Finish/Sample Time: 1300

Well Depth (Bottom) From MP: 55.03 ft

Min. Purge Volume: — Gal / L / mL

Depth to Water From MP: 25.98 ft

Total Purge Volume: 1000 Gal / L / 6 mL

Water Column Length: 29.05 ft

Well Water Volume: 17.57 Gal / 10

Total Drawdown: 0.10 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	1159	26.08	100	7.08	3020	16.40	-51	7.60	71000
2	1201	26.08	100	7.05	2980	16.30	-53	7.58	71000
3	1203	26.08	100	7.03	2950	16.30	-53	7.54	71000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Hori

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 5.942 mg/L

Final DTW: 26.08 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR20

Purge Method: portable pump with dedicated tubing

Date: 10/24/2023 Start Time: 1135 Finish/Sample Time: 1248

Well Depth (Bottom) From MP: 57.55 ft Min. Purge Volume: ✓ Gal / L / mL

Depth to Water From MP: 22.42 ft Total Purge Volume: 1000 Gal / L / ML

Water Column Length: 35.13 ft

Well Water Volume: 21.4 Gal / 0 Total Drawdown: 0.13 ft
21.25 App 10/24/23

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	1148	22.55	100	6.87	2630	14.51	-48	2.35	71000
2	1150	22.55	100	6.86	2610	14.60	-48	2.33	71000
3	1152	22.55	100	6.85	2590	14.68	-48	2.30	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	☒	☐
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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 0.152 mg/L

Final DTW: 22.55 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OR 20

Purge Method: Submersible pump

Date: 11/3/23 Start Time: 1120 Finish/Sample Time: 1211

Well Depth (Bottom) From MP: 57.55 ft Min. Purge Volume: 1.5 Gal / L / mL

Depth to Water From MP: 22.29 ft Total Purge Volume: 1.8 Gal / L / mL

Water Column Length: 35.26 ft

Well Water Volume: 2135 Gal / L Total Drawdown: -0.01 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	1140	22.28	100	7.53	2710	12.40	-2	2.29	173
2	1141	22.28	100	7.41	2700	12.42	-4	2.15	155
3	1142	22.28	100	7.39	2690	12.42	-5	1.99	109
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 500mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL) <u>1000 mL</u>
	Ammonia (P, 250mL, H2SO4)
	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - mg/L

Final DTW: 22.28 ft

Comments

no cap - cover w/ nitrile glove

Sampler's Signature:

Joseph R Reed

Duck Creek

WELL/SAMPLE POINT OM21

Purge Method: portable pump w/ descaler tubing

Date: 10/25/2023 Start Time: 1423 Finish/Sample Time: 1538

Well Depth (Bottom) From MP: 60.55 ft Min. Purge Volume: - Gal / L / mL

Depth to Water From MP: 12.64 ft Total Purge Volume: 1000 Gal / L / (M)

Water Column Length: 47.91 ft

Well Water Volume: 28.98 Gal (M) Total Drawdown: 0.42 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	1436	13.06	100	6.71	3850	15.26	-35	0.76	323
2	1438	13.06	100	6.71	3840	15.29	-35	0.69	228
3	1440	13.06	100	6.70	3840	15.29	-35	0.59	209
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Ferrous Iron - 4.454 mg/L

Final DTW: 13.06 ft

Comments

Sampler's Signature: [Signature]

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Duck Creek

WELL/SAMPLE POINT OM22D

Purge Method: portable pump with Detschert tubing

Date: 10/23/2023 Start Time: 1300 Finish/Sample Time: 1411

Well Depth (Bottom) From MP: 65.19 ft Min. Purge Volume: ✓ Gal / L / mL

Depth to Water From MP: 20.22 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 44.97 ft

Well Water Volume: 27.20 Gal / () Total Drawdown: 0.00 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	1312	20.22	100	6.80	4422.2	14.20	-15.1	0.37	909.45
2	1314	20.22	100	6.86	4428.2	14.25	-14.3	0.38	866.16
3	1316	20.22	100	6.88	4426.2	14.26	-13.8	0.38	889.41
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: A7600

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) <u>1000 mL</u>
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 0.679 mg/L

Final DTW: 20.22 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM23D

Purge Method: portable pump with Dedicated tubing

Date: 10/23/2023 Start Time: 1140 Finish/Sample Time: 1254

Well Depth (Bottom) From MP: 82.91 ft Min. Purge Volume: — Gal / L / mL

Depth to Water From MP: 39.06 ft Total Purge Volume: 1000 Gal / L / (M)

Water Column Length: 43.85 ft

Well Water Volume: 26.52 Gal / (L) Total Drawdown: 0.00 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	1155	39.06	100	7.07	1768.7	14.62	-44.0	0.74	2468
2	1157	39.06	100	7.03	1766.0	14.60	-43.8	0.73	2370.6
3	1159	39.06	100	7.00	1770.7	14.58	-42.9	0.73	2243.4
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

71000
71000
71000
Bg
11/10/23

Field Meter: A7600

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

App 10/23/23

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

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500 mL) 1000mL
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 0.300 mg/L

Final DTW: 39.06 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM24D

Purge Method: portable pump w/ Dedscaled Tubing

Date: 10/23/2023 Start Time: 0936 Finish/Sample Time: 1049

Well Depth (Bottom) From MP: 19.66 ft Min. Purge Volume: - Gal / L / mL

Depth to Water From MP: 5.40 ft Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 14.26 ft

Well Water Volume: 8.62 Gal (L) Total Drawdown: 0.00 ft

10/23/23

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		s.u.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	0950	<u>5.40</u>	100	<u>6.72</u>	<u>3342.4</u>	<u>15.50</u>	<u>-46.8</u>	<u>1.41</u>	<u>347.13</u>
2	0952	<u>5.40</u>	100	<u>6.74</u>	<u>3341.2</u>	<u>15.53</u>	<u>-46.3</u>	<u>1.34</u>	<u>376.13</u>
3	0954	<u>5.40</u>	100	<u>6.74</u>	<u>3344.0</u>	<u>15.55</u>	<u>-45.2</u>	<u>1.29</u>	<u>370.98</u>
4		<u>5.40</u>							
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: AT600

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)
<u>3</u>	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
<u>1</u>	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
<u>1</u>	General (P, 500mL) <u>1000mL</u>
	Ammonia (P,250mL, H2SO4)
<u>1</u>	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 6.134 mg/L
Over Range 06/11/10/23

Final DTW: 5.40 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT OM25S

Purge Method: barrier

Date: 10/23/2023 Start Time: 1053 Finish/Sample Time: 1130

Well Depth (Bottom) From MP: 63.97 ft Min. Purge Volume: _____ Gal / L / mL

Depth to Water From MP: 58.25 ft Total Purge Volume: 4 Gal 10 mL

Water Column Length: 5.72 ft

Well Water Volume: 3.46 Gal (L) Total Drawdown: 1.35 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	1104	58.40	-	6.82	335.8	14.51	-14.5	2.55	894.73
2	1106	58.75	-	6.82	354.3	14.48	-12.0	2.50	745.1
3	1108	58.80	-	6.82	365.9	14.37	-9.3	2.46	167.1
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

>1000
8/11/2023
>1000

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	☒	☐
Casing locked/secure	☒	☐
Well cap fits securely.	☒	☐
Good seal/drainage	☒	☐
Well has weep holes	☒	☐

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 500mL) 1000 mL
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - under range mg/L

Final DTW: 89.60 ft

Comments: barrier used due to little water, poor recharge
and significant sediment that makes sampling with pump impossible
only 1 well volume purged to save
water/readings
taken consecutively

Sampler's Signature: _____

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				
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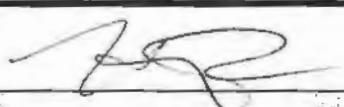
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NA	—	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P	NA	—	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NA	—	MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%	P	NA	—	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:				
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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
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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 9-17 mph</u>		Environment: <u>grassy</u>	
Multiparameter Water Meter	Make: <u>Haniba</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 A Reed</u>	Date: <u>10/18/23</u>
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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-23 <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-23 <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-23 <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>
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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>1AFF211192HB</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>	
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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>	
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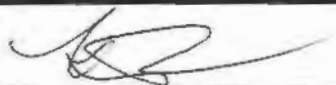
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.92</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	023051-02	2/21/2025
pH 10.00a	<u>9.96</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	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:	
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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: <u>10-20-23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>	Location: <u>Duck Creek</u>
Weather: <u>57° - 64° sunny wind NW at 12 mph</u>	Environment: <u>grass, dirt</u>

Multiparameter Water Meter	Make: <u>A7</u>	Model: <u>600</u>	Serial Number: <u>762215</u>
Water Level Meter	Make: <u>Hera</u>	Model: <u>D.MIT</u>	Serial Number: <u>3717-7</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.15</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>7.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>YES</u>	<u>7.00</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.35</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>YES</u>	<u>10.00</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>1.42</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>1079.7</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>-</u>	Geotech	3GF1197	Jun-24
ORP	<u>245.8</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	<u>-</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.10</u>	mg/L	±0.1	<u>P</u>	<u>NO</u>	<u>-</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.72</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

ICV (Initial Calibration Verification)					Time: <u>0941</u>				
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.01</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>-</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>6.92</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>-</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>10.98</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>-</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>108.1</u>	µS/cm	±5%	<u>P</u>	<u>-</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1445</u>				
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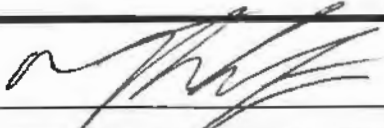
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>-</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>-</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>-</u>	MSI	022361-01	12/27/2024
SC 1000	<u>987.36</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>-</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>-</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.08</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

CCV (Continued Calibration Verification):					Time:				
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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: <u>10/20/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Remberhon</u>	Location: <u>Duck Creek</u>
Weather: <u>52°-75°F Sunny Wind SE 12 mph</u>	Environment: <u>grass, woods, farm field</u>

Multiparameter Water Meter	Make: <u>AT</u>	Model: <u>600</u>	Serial Number: <u>762215</u>
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Water Level Meter	Make: <u>Heron</u>	Model: <u>Dipnet</u>	Serial Number: <u>3717-7</u>
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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>7.05</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>0.81</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>2020.1</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Geotech	3GF1197	Jun-24
ORP	<u>242.8</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>98.73</u>	%	97-100%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</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: 0915			
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: <u>1600</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>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.05</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>10.09</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>998.34</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>0.00</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	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	023067-01	3/14/2025
7.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	023051-02	2/21/2025
10.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	022361-01	12/27/2024
SC 1000	<u>/</u>	µS/cm	±5%	<u>/</u>	<u>/</u>	<u>/</u>	Ricca	4209A12	Aug-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)

Comments:

Signature: <u>[Signature]</u>	Date: <u>10/23/2023</u>
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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
pH 4.00b	<u>3.93</u>	s.u.	±0.15 s.u.	<u>P</u>	-	Geotech
pH 7.00b	<u>7.07</u>	s.u.	±0.15 s.u.	<u>P</u>	-	Geotech
pH 10.00b	<u>10.15</u>	s.u.	±0.15 s.u.	<u>P</u>	-	Geotech
SC 1000	<u>997</u>	µS/cm	±5%	<u>P</u>	-	Ricca

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
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>
pH 7.00a	<u>6.92</u>	s.u.	±0.1 s.u.	<u>P</u>	-	-
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	-	-
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	-	-
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1 mg/L	<u>P</u>	-	-
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	-	-

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading
4.00a		s.u.	±0.1 s.u.			
7.00a		s.u.	±0.1 s.u.			
10.00a		s.u.	±0.1 s.u.			
SC 1000		µS/cm	±5%			
DO (Zero pt)		mg/L	±0.1 mg/L			
Turbidity (DI)		NTU	<2 NTU			

Comments:

Signature: <u>Logan Ross</u>	Date: <u>10/23/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Rembert</u>		Location: <u>Duck Creek</u>	
Weather: <u>67°-77° mostly sunny w/ some SW 12 mph</u>		Environment: <u>woods, grass, dirt, gravel</u>	
Multiparameter Water Meter	Make: <u>Horsbon</u>	Model: <u>US000</u>	Serial Number: <u>PV26Y503</u>
Water Level Meter	Make: <u>Heron</u>	Model: <u>Differ 7</u>	Serial Number: <u>3717-7 PV26Y503</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>7.04</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>10.06</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>2000</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Geotech	3GF1197	Jun-24
ORP	<u>237</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>97.1</u>	%	97-100%	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.5</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>		238 @ 18°C		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer			
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>I</u>	<u>I</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>10.09</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>1513</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading			
pH 4.00a	<u>4.03</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>7.05</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>10.09</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			
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>10/24/2023</u>
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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>
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Water Level Meter	Make: <u>Heron</u>	Model: <u>Digport</u>	Serial Number: <u>3717-T</u>
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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

ICV (Initial Calibration Verification)					Time:			
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	6.89	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	10.13	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: <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>
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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>
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Water Level Meter	Make: <u>Hean</u>	Model: <u>Dipart</u>	Serial Number: <u>3717-7</u>
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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:	0915		
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	6.87	s.u.	±0.15 s.u.	I	I	Geotech	2GF113	Jun-24
pH 10.00b	9.92	s.u.	±0.15 s.u.	I	I	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	I	I	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>6.93</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>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>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>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: Logan Ross				Location: DUCK CREEK					
Weather: 70°-84° 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: 0908				
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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: —				
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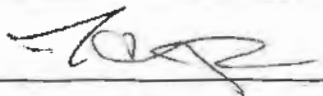
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	—	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.82	s.u.	±0.1 s.u.	P	—	NA	MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	—	NA	MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P	—	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: —				
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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
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Logan Ross

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>				
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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>				
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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:				
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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>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <i>Aaron Penabaz</i>		Location: <i>Duck Creek</i>	
Weather: <i>68°-71° R. cloudy with SW 11 mph</i>		Environment: <i>grass, mud</i>	
Multiparameter Water Meter	Make: <i>Horiba</i>	Model: <i>VS000</i>	Serial Number: <i>WUG63685</i>
Water Level Meter	Make: <i>Heron</i>	Model: <i>D-1000</i>	Serial Number: <i>3717-7</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>NO</i>	<i>N/A</i>	MSI	023067-01	3/14/2025
pH 7.00a	<i>6.92</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	023051-02	2/21/2025
pH 10.00a	<i>10.01</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	022361-01	12/27/2024
SC Zero (DI)	<i>0.0</i>	µS/cm	0<25 µS/cm	<i>P</i>	<i>NO</i>	<i>N/A</i>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<i>2010</i>	µS/cm	±5%	<i>P</i>	<i>NO</i>	<i>N/A</i>	Geotech	3GF1197	Jun-24
ORP	<i>231</i>	mV	±15 mV	<i>P</i>	<i>NO</i>	<i>N/A</i>	InSitu	3GD927	Jan-24
DO (Zero pt)	<i>0.04</i>	mg/L	±0.1	<i>P</i>	<i>NO</i>	<i>N/A</i>	Macron	#000228049	8/26/2025
DO (Saturated)	<i>98.7</i>	%	97-100%	<i>P</i>	<i>NO</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>NO</i>	<i>N/A</i>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

236 @ 20°C

ICV (Initial Calibration Verification)					Time: <i>0930</i>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<i>4.01</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>NO</i>	Geotech	3GB1049	Feb-25	
pH 7.00b	<i>6.85</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>NO</i>	Geotech	2GF113	Jun-24	
pH 10.00b	<i>9.89</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>NO</i>	Geotech	3GA1134	Jan-25	
SC 1000	<i>1000</i>	µS/cm	±5%	<i>P</i>	<i>NO</i>	Ricca	4209A12	Aug-24	

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>4.04</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	023067-01	3/14/2025
pH 7.00a	<i>7.08</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	023051-02	2/21/2025
pH 10.00a	<i>10.04</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	022361-01	12/27/2024
SC 1000	<i>1030</i>	µS/cm	±5%	<i>P</i>	<i>NO</i>	<i>N/A</i>	Ricca	4209A12	Aug-24
DO (Zero pt)	<i>0.09</i>	mg/L	±0.1 mg/L	<i>P</i>	<i>NO</i>	<i>N/A</i>	Macron	#000228049	8/26/2025
Turbidity (DI)	<i>0.0</i>	NTU	<2 NTU	<i>P</i>	<i>NO</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	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: <i>[Signature]</i>	Date: <i>10/27/2023</i>
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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>PW264JD3</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>			
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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>			
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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:			
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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>
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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>
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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 11mp2</u>	Environment: <u>grass, mud, gravel</u>

Multiparameter Water Meter	Make: <u>AT</u>	Model: <u>600</u>	Serial Number: <u>606127</u>
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Water Level Meter	Make: <u>Hecon</u>	Model: <u>Dipart</u>	Serial Number: <u>3117-T</u>
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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: 1000			
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	7.06	s.u.	±0.15 s.u.	P	I	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	I	I	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	I	I	Ricca	4209A12	Aug-24

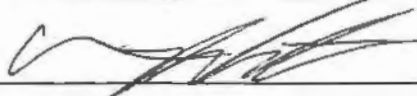
Approx. every 4 hrs, unless only one well

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>4.05</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>1012</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: 	Date: <u>10/30/2023</u>
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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	

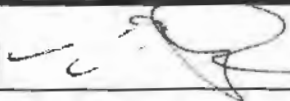
Approx. every 4 hrs, unless only one well

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: <u> </u>			
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></u>	Date: <u>10/30/23</u>
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BG

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Amberley</u>	Location: <u>Duck Creek</u>
Weather: <u>32-40° Sunny Wind NWS 15mph</u>	Environment: <u>grass, mud</u>

Multiparameter Water Meter	Make: <u>Hanna</u>	Model: <u>U5000</u>	Serial Number: <u>60583085</u>
Water Level Meter	Make: <u>Herm</u>	Model: <u>Dipper 7</u>	Serial Number: <u>3717-T</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.04</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>7.03</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>2020</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Geotech	3GF1197	Jun-24
ORP	<u>230</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	<u>N/A</u>	InSitu	3GD927	Jan-24
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>98.9</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>0910</u>				
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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>6.88</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>10.10</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>1030</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>1420</u>				
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.04</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>NO</u>	<u>N/A</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.03</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>987</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Ricca	4209A12	Aug-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:				
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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>10/31/2023</u>
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OG

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

December 11, 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". The signature is written in dark ink and is positioned below the word "Sincerely,".

Diane Billings
Project Manager

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order GJ03211

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



Work Order GJ03501

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



Work Order GJ03741

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
NO	Trip blank(s) received
NO	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



Work Order GJ04132

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



Work Order GJ04134

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



Work Order GJ04374

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



Work Order GJ04588

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



Work Order GJ04862

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



Work Order GJ04998

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



Work Order GJ05392

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



ANALYTICAL RESULTS

Sample: GJ03211-01
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 10/17/23 11:14
Received: 10/17/23 16:51
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.55	pCi/L			1	1.16	11/08/23 19:09	PACE	904.0 903.0
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Sample: GJ03211-02
Name: EB-1
Matrix: Ground Water - Grab

Sampled: 10/17/23 16:45
Received: 10/17/23 16:51
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.510 J	pCi/L			1	0.55	11/08/23 19:09	PACE	904.0 903.0
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Sample: GJ03501-01
Name: BA01
Matrix: Ground Water - Grab

Sampled: 10/18/23 13:25
Received: 10/18/23 17:13
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.192 U	pCi/L			1	0.773	11/08/23 19:09	PACE	904.0 903.0
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Sample: GJ03501-02
Name: BA02
Matrix: Ground Water - Grab

Sampled: 10/18/23 14:34
Received: 10/18/23 17:13
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.246 U	pCi/L			1	0.504	11/08/23 19:09	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ03501-03
Name: BA03
Matrix: Ground Water - Grab

Sampled: 10/18/23 09:45
Received: 10/18/23 17:13
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.697	pCi/L			1	0.511	11/07/23 13:38	PACE	904.0 903.0
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Sample: GJ03501-04
Name: BA03L
Matrix: Ground Water - Grab

Sampled: 10/18/23 09:50
Received: 10/18/23 17:13
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.102 U	pCi/L			1	0.542	11/07/23 13:38	PACE	904.0 903.0
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Sample: GJ03501-05
Name: BA04
Matrix: Ground Water - Grab

Sampled: 10/18/23 15:40
Received: 10/18/23 17:13
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1	pCi/L			1	0.564	11/07/23 13:38	PACE	904.0 903.0
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Sample: GJ03501-06
Name: BA01 DUP
Matrix: Ground Water - Grab

Sampled: 10/18/23 13:25
Received: 10/18/23 17:13
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.644	pCi/L			1	0.462	11/07/23 13:38	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ03741-01
Name: BA05
Matrix: Ground Water - Grab

Sampled: 10/19/23 11:40
Received: 10/19/23 16:42
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.501	pCi/L			1	0.43	11/07/23 13:38	PACE	904.0 903.0
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Sample: GJ03741-02
Name: BA06
Matrix: Ground Water - Grab

Sampled: 10/19/23 13:09
Received: 10/19/23 16:42
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.409 J	pCi/L			1	0.426	11/07/23 13:38	PACE	904.0 903.0
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Sample: GJ03741-03
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.753	pCi/L			1	0.402	11/07/23 13:38	PACE	904.0 903.0
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Sample: GJ04132-01
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.776	pCi/L			1	0.48	11/07/23 19:19	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04132-02
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.919	pCi/L			1	0.433	11/07/23 19:19	PACE	904.0 903.0
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Sample: GJ04132-03
Name: G61S
Matrix: Ground Water - Grab

Sampled: 10/23/23 13:35
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.04	pCi/L			1	0.517	11/07/23 19:19	PACE	904.0 903.0
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Sample: GJ04132-04
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 10/23/23 14:11
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	2.45	pCi/L			1	0.707	11/07/23 19:19	PACE	904.0 903.0
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Sample: GJ04132-05
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 10/23/23 12:54
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.26	pCi/L			1	0.447	11/08/23 22:56	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04132-06
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 10/23/23 10:49
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.74	pCi/L			1	0.439	11/08/23 22:53	PACE	904.0 903.0
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Sample: GJ04132-07
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 10/23/23 11:30
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	7.02	pCi/L			1	1.18	11/08/23 22:53	PACE	904.0 903.0
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Sample: GJ04132-08
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 10/23/23 15:30
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	6.16	pCi/L			1	1.03	11/08/23 22:53	PACE	904.0 903.0
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Sample: GJ04132-09
Name: EB-3
Matrix: DI Water - Equipment Blank

Sampled: 10/23/23 15:45
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.914	pCi/L			1	0.452	11/08/23 22:53	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04134-01
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.88	pCi/L			1	0.584	11/07/23 19:19	PACE	904.0 903.0
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Sample: GJ04374-01
Name: OR20
Matrix: Ground Water - Grab

Sampled: 10/24/23 12:48
Received: 10/24/23 16:39
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.493 J	pCi/L			1	1.11	11/11/23 11:15	PACE	904.0 903.0
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Sample: GJ04374-02
Name: OR11
Matrix: Ground Water - Grab

Sampled: 10/24/23 11:29
Received: 10/24/23 16:39
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.1	pCi/L			1	0.717	11/11/23 11:15	PACE	904.0 903.0
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Sample: GJ04374-03
Name: OM16
Matrix: Ground Water - Grab

Sampled: 10/24/23 15:03
Received: 10/24/23 16:39
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.972 J	pCi/L			1	1.26	11/11/23 11:15	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04374-04
Name: EB-4
Matrix: DI Water - Equipment Blank

Sampled: 10/24/23 15:30
Received: 10/24/23 16:39
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.878	pCi/L			1	0.523	11/11/23 11:15	PACE	904.0 903.0
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Sample: GJ04374-05
Name: OR-11 FD
Matrix: Ground Water - Grab

Sampled: 10/24/23 11:29
Received: 10/24/23 16:39
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.86	pCi/L			1	0.398	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04588-01
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 10/25/23 10:15
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.23	pCi/L			1	0.493	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04588-02
Name: OM21
Matrix: Ground Water - Grab

Sampled: 10/25/23 15:38
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.39	pCi/L			1	0.702	11/13/23 17:36	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04588-03
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 10/25/23 11:37
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.500 J	pCi/L			1	0.752	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04588-04
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 10/25/23 14:20
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	2.65	pCi/L			1	0.943	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04588-05
Name: OR19
Matrix: Ground Water - Grab

Sampled: 10/05/23 13:00
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	2.15	pCi/L			1	0.906	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04588-06
Name: EB-5
Matrix: DI Water - Equipment Blank

Sampled: 10/25/23 15:53
Received: 10/25/23 16:56
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.0747 U	pCi/L			1	0.485	11/13/23 17:36	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04862-01
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.3	pCi/L			1	0.496	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04862-02
Name: G62L
Matrix: Ground Water - Grab

Sampled: 10/26/23 15:31
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.0485 U	pCi/L			1	0.593	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04862-03
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.812	pCi/L			1	0.597	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04862-04
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.492 J	pCi/L			1	0.568	11/13/23 17:36	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04862-05
Name: OM07
Matrix: Ground Water - Grab

Sampled: 10/26/23 12:04
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.681	pCi/L			1	0.68	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04862-06
Name: OM12
Matrix: Ground Water - Grab

Sampled: 10/26/23 10:45
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.24	pCi/L			1	0.609	11/15/23 17:04	PACE	904.0 903.0
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Sample: GJ04862-07
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 10/26/23 14:40
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.17	pCi/L			1	0.525	11/15/23 17:04	PACE	904.0 903.0
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Sample: GJ04862-08
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 10/26/23 13:23
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.440 J	pCi/L			1	0.63	11/15/23 17:04	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04862-09
Name: EB-6
Matrix: DI Water - Equipment Blank

Sampled: 10/26/23 14:58
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.58	pCi/L			1	0.577	11/15/23 17:04	PACE	904.0 903.0
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Sample: GJ04862-10
Name: EB-7
Matrix: DI Water - Equipment Blank

Sampled: 10/26/23 15:25
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.179 U	pCi/L			1	0.631	11/15/23 17:04	PACE	904.0 903.0
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Sample: GJ04998-01
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.178 J	pCi/L			1	0.393	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04998-02
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	2.14	pCi/L			1	0.383	11/13/23 17:36	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04998-03
Name: OR02
Matrix: Ground Water - Grab

Sampled: 10/27/23 13:30
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	4.54	pCi/L			1	0.882	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04998-04
Name: OMO1
Matrix: Ground Water - Grab

Sampled: 10/27/23 13:40
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	2.13	pCi/L			1	1.04	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04998-05
Name: OM01 DUP
Matrix: Ground Water - Grab

Sampled: 10/27/23 13:40
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.19	pCi/L			1	0.549	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ04998-06
Name: EB-8
Matrix: Ground Water - Grab

Sampled: 10/27/23 15:43
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.212 J	pCi/L			1	0.448	11/13/23 17:36	PACE	904.0 903.0
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ANALYTICAL RESULTS

Sample: GJ04998-07
Name: EB-9
Matrix: DI Water - Equipment Blank

Sampled: 10/27/23 15:40
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.155 U	pCi/L			1	0.505	11/13/23 17:36	PACE	904.0 903.0
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Sample: GJ05392-01
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
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	1.55	pCi/L			1	1.15	11/21/23 14:19	PACE	904.0 903.0
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Sample: GJ05392-02
Name: R61L
Matrix: Ground Water - Grab

Sampled: 10/31/23 11:40
Received: 10/31/23 15:25
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.636	pCi/L			1	0.511	11/21/23 14:19	PACE	904.0 903.0
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Sample: GJ05392-03
Name: EB-11
Matrix: DI Water - Equipment Blank

Sampled: 10/31/23 14:27
Received: 10/31/23 15:25
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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Miscellaneous - Pace Analytical - Mt Juliet, Tn

Rad 226 and 228-Subcontract	0.739	pCi/L			1	0.61	11/21/23 14:19	PACE	904.0 903.0
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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
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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

Certified by: Diane Billings, Project Manager





ANALYTICAL REPORT

December 11, 2023

Revised Report

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1670204
Samples Received: 10/25/2023
Project Number: GJ03211
Description:
Site: 001
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

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ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GJ03211

SDG:
L1670204

DATE/TIME:
12/11/23 15:25

PAGE:
1 of 12

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SAMPLE SUMMARY

GJ03211-01 L1670204-01 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/17/23 11:14

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2161389	1	10/31/23 15:17	11/08/23 19:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/08/23 19:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GJ03211-02 L1670204-02 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/17/23 16:45

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2161389	1	10/31/23 15:17	11/08/23 19:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/08/23 19:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

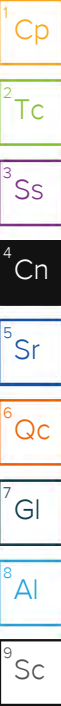
[Preliminary Report]


Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 11/21/23 09:25

Project Narrative



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.992	J	0.625		1.11		11/08/2023 19:09	WG2161389
(T) Barium	115					30.0-143	11/08/2023 19:09	WG2161389
(T) Yttrium	118					30.0-136	11/08/2023 19:09	WG2161389

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.55		0.711	1.16	11/08/2023 19:09	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.559		0.338		0.338		11/03/2023 17:30	WG2161518
(T) Barium-133	95.8					30.0-143	11/03/2023 17:30	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.434		0.212		0.376		11/08/2023 19:09	WG2161389
(T) Barium	138					30.0-143	11/08/2023 19:09	WG2161389
(T) Yttrium	121					30.0-136	11/08/2023 19:09	WG2161389

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.510	J	0.319	0.550	11/08/2023 19:09	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0766	U	0.239		0.402		11/03/2023 17:30	WG2161518
(T) Barium-133	90.8					30.0-143	11/03/2023 17:30	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3997990-1 11/08/23 13:58

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.0155	U	0.169	0.316	
(T) Barium	99.1		99.1		
(T) Yttrium	111		111		

L1665082-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1665082-05 11/08/23 13:58 • (DUP) R3997990-5 11/08/23 13:58

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.21	0.341	0.600		0.340	0.327	0.601		112	1.83	J	20	3
(T) Barium	105				101	101							
(T) Yttrium	118				121	121							

Laboratory Control Sample (LCS)

(LCS) R3997990-2 11/08/23 13:58

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.56	111	80.0-120	
(T) Barium			101		
(T) Yttrium			109		

L1670206-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670206-01 11/08/23 19:09 • (MS) R3997990-3 11/08/23 13:58 • (MSD) R3997990-4 11/08/23 13:58

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.120	16.1	16.9	96.6	101	1	70.0-130			4.30		20
(T) Barium		86.2			99.6	105							
(T) Yttrium		123			126	121							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4002321-5 11/03/23 17:34

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0128		0.0187	0.0299	
(T) Barium-133	66.9		66.9		

L1670206-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1670206-02 11/03/23 17:30 • (DUP) R4002321-4 11/03/23 17:23

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.159	0.204	0.291		0.0183	0.113	0.264		159	0.604		20	3
(T) Barium-133	92.4				81.5	81.5							

Laboratory Control Sample (LCS)

(LCS) R4002321-1 11/03/23 17:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.89	118	80.0-120	
(T) Barium-133			73.0		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/03/23 17:23 • (MS) R4002321-2 11/03/23 17:23 • (MSD) R4002321-3 11/03/23 17:23

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0717	22.0	23.2	110	116	1	75.0-125			5.26		20
(T) Barium-133		72.7			69.8	67.7							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

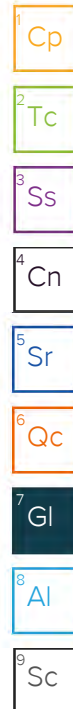
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

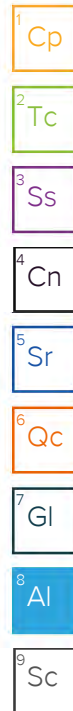
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GJ03211

F033

SENDING LABORATORY

PDC Laboratories, Inc.
 2231 W Altorfer Dr
 Peoria, IL 61615
 (800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
 12065 Lebanon Rd
 Mt Juliet, TN 37122
 (615) 758-5858

L1670204

Sample: GJ03211-01
Name: OR13S

Sampled: 10/17/23 11:14
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/23 16:00	04/14/24 11:14	

Sample: GJ03211-02
Name: EB-1

Sampled: 10/17/23 11:14
Matrix: Ground Water
Preservative: HNO3, pH <2

10/17/23 1643 -02 10/17/23 deb

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/23 16:00	04/14/24 11:14	

CLAB 11-310

Sample Receipt Checklist
 COC Seal Present/Intact: ☒ Y ☐ N
 COC Signed/Accurate: ☒ Y ☐ N
 COC Use Active Intact: ☒ Y ☐ N
 Correct bottles used: ☒ Y ☐ N
 Sufficient volume sent: ☒ Y ☐ N
 RA Screen <0.5 mR/hr: ☒ Y ☐ N
 If Applicable
 VOA Zero Headspace: ☒ Y ☐ N
 Pres. Correct/Check: ☒ Y ☐ N
2 RECEIVED

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/24/23 Total # of Containers: 2 Sample Origin (State): IL PO #:

Turn-Around Time Requested ☒ NORMAL ☐ RUSH Date Results Needed:

 Relinquished By _____ Date/Time <u>10/24/23 16:22</u>	Received By _____ Date/Time _____	Sample Temperature Upon Receipt _____ °C
		Sample(s) Received on Ice Y or N
 Relinquished By _____ Date/Time _____	Received By <u>Christopher L. Hallin</u> Date/Time <u>10/24/23 16:22</u>	Proper Bottles Received in Good Condition Y or N
		Bottles Filled with Adequate Volume Y or N
		Samples Received Within Hold Time Y or N
		Date/Time Taken From Sample Bottle Y or N



ANALYTICAL REPORT

November 20, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1670206
Samples Received: 10/25/2023
Project Number: GJ03501
Description:
Site: 001
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

38

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GJ03501

SDG:
L1670206

DATE/TIME:
11/20/23 09:25

PAGE:
1 of 17

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

GJ03501-01 L1670206-01 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/18/23 13:25

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2161389	1	10/31/23 15:17	11/08/23 19:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/08/23 19:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GJ03501-02 L1670206-02 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/18/23 14:34

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2161389	1	10/31/23 15:17	11/08/23 19:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/08/23 19:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03501-03 L1670206-03 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/18/23 09:45

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03501-04 L1670206-04 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/18/23 09:50

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03501-05 L1670206-05 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/18/23 15:40

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03501-06 L1670206-06 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/18/23 13:25

10/25/23 09:00

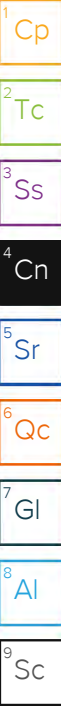
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.120	U	0.185		0.634		11/08/2023 19:09	WG2161389
(T) Barium	86.2					30.0-143	11/08/2023 19:09	WG2161389
(T) Yttrium	123					30.0-136	11/08/2023 19:09	WG2161389

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.192	U	0.350	0.773	11/08/2023 19:09	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.192	J	0.297		0.443		11/03/2023 17:30	WG2161518
(T) Barium-133	79.6					30.0-143	11/03/2023 17:30	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.0866	U	0.123		0.411		11/08/2023 19:09	WG2161389
(T) Barium	92.1					30.0-143	11/08/2023 19:09	WG2161389
(T) Yttrium	114					30.0-136	11/08/2023 19:09	WG2161389

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.246	U	0.238	0.504	11/08/2023 19:09	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.159	J	0.204		0.291		11/03/2023 17:30	WG2161518
(T) Barium-133	92.4					30.0-143	11/03/2023 17:30	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.506		0.199		0.365		11/07/2023 13:38	WG2162456
(T) Barium	105					30.0-143	11/07/2023 13:38	WG2162456
(T) Yttrium	108					30.0-136	11/07/2023 13:38	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.697		0.320	0.511	11/07/2023 13:38	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.192	J	0.250		0.357		11/03/2023 17:30	WG2161518
(T) Barium-133	85.2					30.0-143	11/03/2023 17:30	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.298	U	0.215		0.424		11/07/2023 13:38	WG2162456
(T) Barium	108					30.0-143	11/07/2023 13:38	WG2162456
(T) Yttrium	107					30.0-136	11/07/2023 13:38	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.102	U	0.300	0.542	11/07/2023 13:38	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.102	U	0.209		0.337		11/03/2023 17:30	WG2161518
(T) Barium-133	97.2					30.0-143	11/03/2023 17:30	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.615		0.218		0.397		11/07/2023 13:38	WG2162456
(T) Barium	111					30.0-143	11/07/2023 13:38	WG2162456
(T) Yttrium	121					30.0-136	11/07/2023 13:38	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.00		0.394	0.564	11/07/2023 13:38	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.389	J	0.328		0.400		11/03/2023 17:30	WG2161518
(T) Barium-133	87.4					30.0-143	11/03/2023 17:30	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.307	J	0.205		0.384		11/07/2023 13:38	WG2162456
(T) Barium	119					30.0-143	11/07/2023 13:38	WG2162456
(T) Yttrium	92.6					30.0-136	11/07/2023 13:38	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.644		0.326	0.462	11/07/2023 13:38	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.338		0.253		0.256		11/03/2023 17:30	WG2161518
(T) Barium-133	94.2					30.0-143	11/03/2023 17:30	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3997990-1 11/08/23 13:58

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.0155	U	0.169	0.316	
(T) Barium	99.1		99.1		
(T) Yttrium	111		111		

L1665082-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1665082-05 11/08/23 13:58 • (DUP) R3997990-5 11/08/23 13:58

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.21	0.341	0.600		0.340	0.327	0.601		112	1.83	J	20	3
(T) Barium	105				101	101							
(T) Yttrium	118				121	121							

Laboratory Control Sample (LCS)

(LCS) R3997990-2 11/08/23 13:58

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.56	111	80.0-120	
(T) Barium			101		
(T) Yttrium			109		

L1670206-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670206-01 11/08/23 19:09 • (MS) R3997990-3 11/08/23 13:58 • (MSD) R3997990-4 11/08/23 13:58

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.120	16.1	16.9	96.6	101	1	70.0-130			4.30		20
(T) Barium		86.2			99.6	105							
(T) Yttrium		123			126	121							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R3997981-1 11/07/23 13:38

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.382		0.158	0.290	
(T) Barium	105		105		
(T) Yttrium	108		108		

L1665889-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1665889-08 11/07/23 13:38 • (DUP) R3997981-5 11/07/23 13:38

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	3.18	0.306	0.454		3.82	0.366	0.575		18.2	1.34		20	3
(T) Barium	114				115	115							
(T) Yttrium	98.3				129	129							

Laboratory Control Sample (LCS)

(LCS) R3997981-2 11/07/23 13:38

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.22	84.3	80.0-120	
(T) Barium			121		
(T) Yttrium			101		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/07/23 13:38 • (MS) R3997981-3 11/07/23 13:38 • (MSD) R3997981-4 11/07/23 13:38

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.203	8.85	8.31	86.5	81.1	1	70.0-130			6.30		20
(T) Barium		103			125	124							
(T) Yttrium		104			105	117							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4002321-5 11/03/23 17:34

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0128	⬇	0.0187	0.0299	
(T) Barium-133	66.9		66.9		

L1670206-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1670206-02 11/03/23 17:30 • (DUP) R4002321-4 11/03/23 17:23

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.159	0.204	0.291		0.0183	0.113	0.264		159	0.604	⬇	20	3
(T) Barium-133	92.4				81.5	81.5							

Laboratory Control Sample (LCS)

(LCS) R4002321-1 11/03/23 17:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.89	118	80.0-120	
(T) Barium-133			73.0		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/03/23 17:23 • (MS) R4002321-2 11/03/23 17:23 • (MSD) R4002321-3 11/03/23 17:23

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0717	22.0	23.2	110	116	1	75.0-125			5.26		20
(T) Barium-133		72.7			69.8	67.7							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

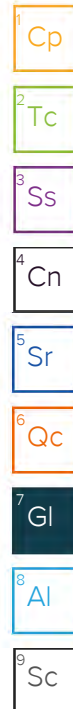
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

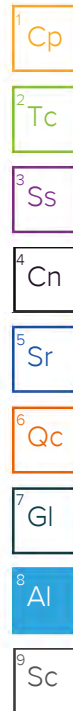
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



SUBCONTRACT ORDER
Transfer Chain of Custody

F034

Pace Analytical Services, LLC

GJ03501

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

U670204

Sample: GJ03501-01
Name: BA01

Sampled: 10/18/23 13:25
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

10/31/23 16:00

04/15/24 13:25

Sample: GJ03501-02
Name: BA02

Sampled: 10/18/23 14:34
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

10/31/23 16:00

04/15/24 14:34

Sample: GJ03501-03
Name: BA03

Sampled: 10/18/23 09:45
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

10/31/23 16:00

04/15/24 09:45

Sample: GJ03501-04
Name: BA03L

Sampled: 10/18/23 09:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

10/31/23 16:00

04/15/24 09:50

Sample: GJ03501-05
Name: BA04

Sampled: 10/18/23 15:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

10/31/23 16:00

04/15/24 15:40

SUBCONTRACT ORDER Transfer Chain of Custody

Pace Analytical Services, LLC

GJ03501

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

61670204

Sample: GJ03501-06
Name: BA01 DUP

Sampled: 10/18/23 13:25
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/31/23 16:00	04/15/24 13:25	

LC48 16.34D

Sample Receipt Checklist

sol Present/Intact: ☒ Y ☐ N If Applicable

Cap Signed Accurate: ☒ Y ☐ N

Bottles arrive intact: ☒ Y ☐ N

Correct bottles used: ☒ Y ☐ N

Seal/Leak Volume Sent: ☒ Y ☐ N

HA Screen <0.5 m/hc: ☒ Y ☐ N

VOL Zero Headspace: ☒ Y ☐ N

Pres. Correct/Check: ☒ Y ☐ N

6 RECEIVED

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/24/23 Total # of Containers: 16 Sample Origin (State): IL PO #:

Turn-Around Time Requested ☒ NORMAL ☐ RUSH Date Results Needed:

Relinquished By	Date/Time	Received By	Date/Time	Sample Temperature Upon Receipt	°C
	<u>10/24/23 16:28</u>		<u>10/24/23 16:28</u>	Sample(s) Received on Ice	☐ Y ☐ N
				Proper Bottles Received in Good Condition	☐ Y ☐ N
				Bottles Filled with Adequate Volume	☐ Y ☐ N
				Samples Received Within Hold Time	☐ Y ☐ N
				Date/Time Taken From Sample Bottle	☐ Y ☐ N

Relinquished By

Date/Time

Received By

Date/Time

Sample Temperature Upon Receipt

°C



ANALYTICAL REPORT

November 20, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1670207
Samples Received: 10/25/2023
Project Number: GJ03741
Description:
Site: 001
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

55

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GJ03741

SDG:
L1670207

DATE/TIME:
11/20/23 09:28

PAGE:
1 of 12

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Cn: Case Narrative	4	
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GJ03741-02 L1670207-02	6	⁴ Cn
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Qc: Quality Control Summary	8	
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Gl: Glossary of Terms	10	⁷ Gl
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SAMPLE SUMMARY

GJ03741-01 L1670207-01 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/19/23 11:40

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:34	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GJ03741-02 L1670207-02 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/19/23 13:09

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:34	RGT	Mt. Juliet, TN

GJ03741-03 L1670207-03 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/19/23 14:30

10/25/23 09:00

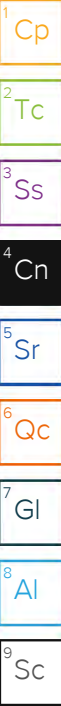
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:34	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.443		0.195		0.359		11/07/2023 13:38	WG2162456
(T) Barium	113					30.0-143	11/07/2023 13:38	WG2162456
(T) Yttrium	110					30.0-136	11/07/2023 13:38	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.501		0.234	0.430	11/07/2023 13:38	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0573	U	0.129		0.237		11/03/2023 17:34	WG2161518
(T) Barium-133	82.6					30.0-143	11/03/2023 17:34	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.0758	U	0.207		0.396		11/07/2023 13:38	WG2162456
(T) Barium	106					30.0-143	11/07/2023 13:38	WG2162456
(T) Yttrium	120					30.0-136	11/07/2023 13:38	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.409	J	0.297	0.426	11/07/2023 13:38	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.333		0.213		0.157		11/03/2023 17:34	WG2161518
(T) Barium-133	91.9					30.0-143	11/03/2023 17:34	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.598		0.196		0.356		11/07/2023 13:38	WG2162456
(T) Barium	106					30.0-143	11/07/2023 13:38	WG2162456
(T) Yttrium	102					30.0-136	11/07/2023 13:38	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.753		0.255	0.402	11/07/2023 13:38	WG2161518

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.154	J	0.163		0.187		11/03/2023 17:34	WG2161518
(T) Barium-133	85.1					30.0-143	11/03/2023 17:34	WG2161518

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3997981-1 11/07/23 13:38

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.382		0.158	0.290	
(T) Barium	105		105		
(T) Yttrium	108		108		

L1665889-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1665889-08 11/07/23 13:38 • (DUP) R3997981-5 11/07/23 13:38

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	3.18	0.306	0.454		3.82	0.366	0.575		18.2	1.34		20	3
(T) Barium	114				115	115							
(T) Yttrium	98.3				129	129							

Laboratory Control Sample (LCS)

(LCS) R3997981-2 11/07/23 13:38

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.22	84.3	80.0-120	
(T) Barium			121		
(T) Yttrium			101		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/07/23 13:38 • (MS) R3997981-3 11/07/23 13:38 • (MSD) R3997981-4 11/07/23 13:38

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.203	8.85	8.31	86.5	81.1	1	70.0-130			6.30		20
(T) Barium		103			125	124							
(T) Yttrium		104			105	117							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R4002321-5 11/03/23 17:34

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0128		0.0187	0.0299	
(T) Barium-133	66.9		66.9		

L1670206-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1670206-02 11/03/23 17:30 • (DUP) R4002321-4 11/03/23 17:23

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.159	0.204	0.291		0.0183	0.113	0.264		159	0.604		20	3
(T) Barium-133	92.4				81.5	81.5							

Laboratory Control Sample (LCS)

(LCS) R4002321-1 11/03/23 17:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.89	118	80.0-120	
(T) Barium-133			73.0		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/03/23 17:23 • (MS) R4002321-2 11/03/23 17:23 • (MSD) R4002321-3 11/03/23 17:23

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0717	22.0	23.2	110	116	1	75.0-125			5.26		20
(T) Barium-133		72.7			69.8	67.7							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

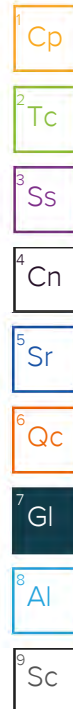
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

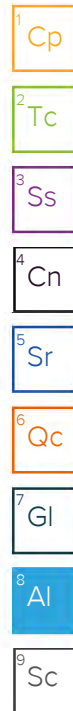
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



CUB IL-340

SAMPLE RECEIPT CHECKLIST

GOC Seal Present/Intact: ☒ Y ☐ N

100 Signed/Accurate: ☒ Y ☐ N

3+ 100 Active Alerts: ☒ Y ☐ N

Correct bottles used: ☒ Y ☐ N

Sufficient volume sent: ☒ Y ☐ N

RA screen <0.5 mR/hr: ☒ Y ☐ N

VOL Zero Headspace: ☒ Y ☐ N

Pres. Correct/Check: ☒ Y ☐ N

30621207

CT ORDER

of Custody

Services, LLC

F035

GU03741

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, TN
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

4470207

Sample: GU03741-01

Name: BA05

Sampled: 10/19/23 11:49

Matrix: Ground Water

Preservative: HNO₃, pH <2

-01

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/01/23 16:00

04/16/24 11:49

Sample: GU03741-02

Name: BA06

Sampled: 10/19/23 13:09

Matrix: Ground Water

Preservative: HNO₃, pH <2

-02

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/01/23 16:00

04/16/24 13:09

Sample: GU03741-03

Name: G02S

Sampled: 10/19/23 14:30

Matrix: Ground Water

Preservative: HNO₃, pH <2

-03

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/01/23 16:00

04/16/24 14:30

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/24/23

Total # of Containers: 3

Sample Origin (State): IL

PO #: _____

Turn-Around Time Requested ☒ NORMAL☐ RUSH

Date Results Needed: _____

Relinquished By

Date/Time

Received By

Date/Time

Sample Temperature Upon Receipt

____ °C

Sample(s) Received on Ice

Y or N

Proper Bottles Received in Good Condition

Y or N

Bottles Filled with Adequate Volume

Y or N

Samples Received Within Hold Time

Y or N

Relinquished By

Date/Time

Received By

Date/Time

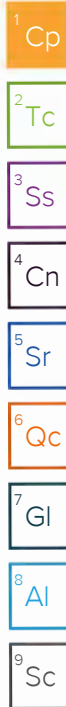
Date/Time Taken From Sample Bottle

Y or N



ANALYTICAL REPORT

November 20, 2023



Pace IR - Peoria, IL

Sample Delivery Group: L1670210
Samples Received: 10/25/2023
Project Number: GJ04132
Description:
Site: 001
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

67

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GJ04132

SDG:
L1670210

DATE/TIME:
11/20/23 09:23

PAGE:
1 of 24

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¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

SAMPLE SUMMARY

GJ04132-01 L1670210-01 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/23/23 16:09

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162602	1	11/02/23 10:28	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162602	1	11/02/23 10:28	11/04/23 14:43	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GJ04132-02 L1670210-02 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/23/23 11:48

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162602	1	11/02/23 10:28	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162602	1	11/02/23 10:28	11/04/23 14:43	RGT	Mt. Juliet, TN

GJ04132-03 L1670210-03 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/23/23 13:35

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162604	1	11/02/23 16:28	11/07/23 19:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162604	1	11/02/23 16:28	11/06/23 16:56	RGT	Mt. Juliet, TN

GJ04132-04 L1670210-04 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/23/23 14:11

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162604	1	11/02/23 16:28	11/07/23 19:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162604	1	11/02/23 16:28	11/06/23 16:56	RGT	Mt. Juliet, TN

GJ04132-05 L1670210-05 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/23/23 12:54

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:56	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:56	RGT	Mt. Juliet, TN

GJ04132-06 L1670210-06 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/23/23 10:49

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

GJ04132-07 L1670210-07 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/23/23 11:30

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GJ04132-08 L1670210-08 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/23/23 15:30

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04132-09 L1670210-09 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/23/23 15:45

10/25/23 09:00

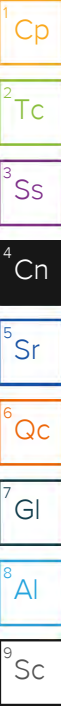
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.579		0.264		0.459		11/07/2023 19:19	WG2162456
(T) Barium	102					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	104					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.776		0.306	0.480	11/07/2023 19:19	WG2162602

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.198		0.154		0.142		11/04/2023 14:43	WG2162602
(T) Barium-133	93.5					30.0-143	11/04/2023 14:43	WG2162602

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.835		0.240		0.407		11/07/2023 19:19	WG2162456
(T) Barium	101					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	129					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.919		0.264	0.433	11/07/2023 19:19	WG2162602

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0846	J	0.109		0.149		11/04/2023 14:43	WG2162602
(T) Barium-133	90.3					30.0-143	11/04/2023 14:43	WG2162602

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.819		0.250		0.427		11/07/2023 19:19	WG2162456
(T) Barium	126					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	125					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.04		0.338	0.517	11/07/2023 19:19	WG2162604

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.224	J	0.228		0.291		11/06/2023 16:56	WG2162604
(T) Barium-133	81.2					30.0-143	11/06/2023 16:56	WG2162604

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.99		0.371		0.607		11/07/2023 19:19	WG2162456
(T) Barium	82.0					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	78.2					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.45		0.516	0.707	11/07/2023 19:19	WG2162604

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.463		0.359		0.362		11/06/2023 16:56	WG2162604
(T) Barium-133	51.5					30.0-143	11/06/2023 16:56	WG2162604

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.13		0.227		0.372		11/07/2023 19:19	WG2162456
(T) Barium	98.9					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	131					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.26		0.284	0.447	11/08/2023 22:56	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.130	J	0.171		0.248		11/08/2023 22:56	WG2164135
(T) Barium-133	75.1					30.0-143	11/08/2023 22:56	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.44		0.235		0.376		11/07/2023 19:19	WG2162456
(T) Barium	95.9					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	107					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.74		0.330	0.439	11/08/2023 22:53	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.303		0.231		0.227		11/08/2023 22:53	WG2164135
(T) Barium-133	67.3					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	4.52		0.719		1.17		11/07/2023 19:19	WG2162456
(T) Barium	95.1					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	116					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	7.02		0.936	1.18	11/08/2023 22:53	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	2.49		0.600		0.181		11/08/2023 22:53	WG2164135
(T) Barium-133	66.7					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	4.49		0.650		1.02		11/07/2023 19:19	WG2162456
(T) Barium	95.6					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	85.5					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	6.16		0.807	1.03	11/08/2023 22:53	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	1.68		0.478		0.170		11/08/2023 22:53	WG2164135
(T) Barium-133	77.9					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.914		0.249		0.423		11/07/2023 19:19	WG2162456
(T) Barium	109					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	102					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.914		0.251	0.452	11/08/2023 22:53	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	-0.00828	U	0.0325		0.160		11/08/2023 22:53	WG2164135
(T) Barium-133	81.8					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3997981-1 11/07/23 13:38

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.382		0.158	0.290	
(T) Barium	105		105		
(T) Yttrium	108		108		

L1665889-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1665889-08 11/07/23 13:38 • (DUP) R3997981-5 11/07/23 13:38

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	3.18	0.306	0.454		3.82	0.366	0.575		18.2	1.34		20	3
(T) Barium	114				115	115							
(T) Yttrium	98.3				129	129							

Laboratory Control Sample (LCS)

(LCS) R3997981-2 11/07/23 13:38

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.22	84.3	80.0-120	
(T) Barium			121		
(T) Yttrium			101		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/07/23 13:38 • (MS) R3997981-3 11/07/23 13:38 • (MSD) R3997981-4 11/07/23 13:38

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.203	8.85	8.31	86.5	81.1	1	70.0-130			6.30		20
(T) Barium		103			125	124							
(T) Yttrium		104			105	117							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3997977-1 11/04/23 14:43

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00492	U	0.0167	0.0346	
(T) Barium-133	76.0		76.0		

L1670210-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1670210-02 11/04/23 14:43 • (DUP) R3997977-5 11/04/23 14:43

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0846	0.109	0.149		0.207	0.131	0.115		84.1	0.720		20	3
(T) Barium-133	90.3				79.8	79.8							

Laboratory Control Sample (LCS)

(LCS) R3997977-2 11/04/23 14:43

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.53	111	80.0-120	
(T) Barium-133			76.2		

L1664280-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-03 11/04/23 14:43 • (MS) R3997977-6 11/09/23 17:07 • (MSD) R3997977-4 11/04/23 14:43

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.00810	22.4	23.7	112	119	1	75.0-125			5.72		20
(T) Barium-133		82.3			71.2	71.8							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3999285-1 11/06/23 16:56

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0179	<u>U</u>	0.0277	0.0846	
(T) Barium-133	77.2		77.2		

L1671796-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671796-01 11/06/23 16:56 • (DUP) R3999285-5 11/06/23 16:56

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	-0.0628	0.162	0.385		-0.0512	0.0915	0.296		0.000	0.0625	<u>U</u>	20	3
(T) Barium-133	84.5				85.6	85.6							

Laboratory Control Sample (LCS)

(LCS) R3999285-2 11/06/23 16:56

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.51	110	80.0-120	
(T) Barium-133			79.2		

L1664280-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-06 11/06/23 16:56 • (MS) R3999285-3 11/06/23 16:56 • (MSD) R3999285-4 11/06/23 16:56

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.235	21.2	25.1	105	124	1	75.0-125			16.8		20
(T) Barium-133		72.7			82.2	62.4							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R4002379-1 11/08/23 22:53

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0217	U	0.0449	0.0811	
(T) Barium-133	51.7		51.7		

L1672545-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-01 11/08/23 22:53 • (DUP) R4002379-5 11/08/23 22:53

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0851	0.109	0.150		0.167	0.180	0.215		64.9	0.388	J	20	3
(T) Barium-133	85.8				70.8	70.8							

Laboratory Control Sample (LCS)

(LCS) R4002379-2 11/08/23 22:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.50	110	80.0-120	
(T) Barium-133			67.9		

L1670210-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670210-09 11/08/23 22:53 • (MS) R4002379-3 11/08/23 22:53 • (MSD) R4002379-4 11/08/23 22:53

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.00828	21.9	22.8	109	114	1	75.0-125			4.12		20
(T) Barium-133		81.8			82.8	76.6							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

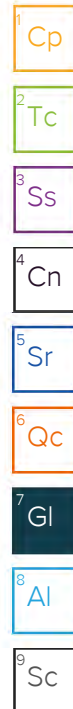
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

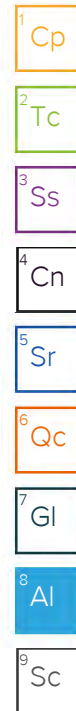
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GJ04132

F032

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1670210

Sample: GJ04132-01
Name: G50S

Sampled: 10/23/23 16:09
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 16:09	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 16:09	

Sample: GJ04132-02
Name: G60L

Sampled: 10/23/23 11:48
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 11:48	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 11:48	

Sample: GJ04132-03
Name: G61S

Sampled: 10/23/23 13:35
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 13:35	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 13:35	

Sample: GJ04132-04
Name: OM22D

Sampled: 10/23/23 14:11
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 14:11	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 14:11	

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GJ04132

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1670210

Sample: GJ04132-05 -
Name: OM23D

Sampled: 10/23/23 12:54
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 12:54	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 12:54	

Sample: GJ04132-06 -
Name: OM24D

Sampled: 10/23/23 10:49
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 10:49	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 10:49	

Sample: GJ04132-07 -
Name: OM25S

Sampled: 10/23/23 11:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 11:30	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 11:30	

Sample: GJ04132-08 -
Name: OR03D

Sampled: 10/23/23 15:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 15:30	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 15:30	

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GJ04132

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

4670210

Sample: GJ04132-09

Name: Equipment Blank

EB-3 10/23/23 Job

Sampled: 10/23/23 15:45

Matrix: DI Water

Preservative: HNO₃, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 15:45	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 15:45	

COAG 19.750

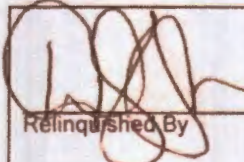
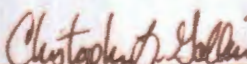
Sample Receipt Checklist	
☒ Seal Present/Intact	☒ If Applicable
☒ Vial Signed/Accurate	VIA Date/Headspace: ☒ Y ☒ N
☒ Anticline arrival intact	Pres Correct/Check: ☒ Y ☒ N
☒ Anticline volume sent	
☒ Anticline 40.5 mL/50 mL	

9 RECEIVED

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/24/23 Total # of Containers: 8 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

	<u>10/24/23</u>	<u>16:00</u>		
Relinquished By	Date/Time	Received By	Date/Time	
			<u>10/25/23</u>	
Relinquished By	Date/Time	Received By	Date/Time	

Sample Temperature Upon Receipt	_____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N



ANALYTICAL REPORT

November 14, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1670209
Samples Received: 10/25/2023
Project Number: GJ04134
Description:
Site: 001
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

90

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GJ04134

SDG:
L1670209

DATE/TIME:
11/14/23 12:33

PAGE:
1 of 10

TABLE OF CONTENTS

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Radiochemistry by Method SM7500Ra B M	7
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Al: Accreditations & Locations	9
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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

GJ04134-01 L1670209-01 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/20/23 12:47

10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162604	1	11/02/23 16:28	11/07/23 19:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162604	1	11/02/23 16:28	11/06/23 16:57	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

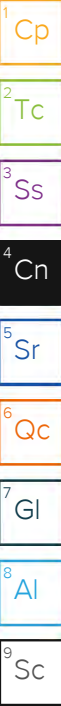
⁹Sc

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.60		0.287		0.469		11/07/2023 19:19	WG2162456
(T) Barium	92.8					30.0-143	11/07/2023 19:19	WG2162456
(T) Yttrium	95.1					30.0-136	11/07/2023 19:19	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.88		0.395	0.584	11/07/2023 19:19	WG2162604

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.275	J	0.272		0.348		11/06/2023 16:57	WG2162604
(T) Barium-133	85.8					30.0-143	11/06/2023 16:57	WG2162604

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3997981-1 11/07/23 13:38

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.382		0.158	0.290	
(T) Barium	105		105		
(T) Yttrium	108		108		

L1665889-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1665889-08 11/07/23 13:38 • (DUP) R3997981-5 11/07/23 13:38

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	3.18	0.306	0.454		3.82	0.366	0.575		18.2	1.34		20	3
(T) Barium	114				115	115							
(T) Yttrium	98.3				129	129							

Laboratory Control Sample (LCS)

(LCS) R3997981-2 11/07/23 13:38

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.22	84.3	80.0-120	
(T) Barium			121		
(T) Yttrium			101		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/07/23 13:38 • (MS) R3997981-3 11/07/23 13:38 • (MSD) R3997981-4 11/07/23 13:38

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.203	8.85	8.31	86.5	81.1	1	70.0-130			6.30		20
(T) Barium		103			125	124							
(T) Yttrium		104			105	117							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3999285-1 11/06/23 16:56

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0179	<u>U</u>	0.0277	0.0846	
(T) Barium-133	77.2		77.2		

L1671796-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671796-01 11/06/23 16:56 • (DUP) R3999285-5 11/06/23 16:56

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	-0.0628	0.162	0.385		-0.0512	0.0915	0.296		0.000	0.0625	<u>U</u>	20	3
(T) Barium-133	84.5				85.6	85.6							

Laboratory Control Sample (LCS)

(LCS) R3999285-2 11/06/23 16:56

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.51	110	80.0-120	
(T) Barium-133			79.2		

L1664280-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-06 11/06/23 16:56 • (MS) R3999285-3 11/06/23 16:56 • (MSD) R3999285-4 11/06/23 16:56

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.235	21.2	25.1	105	124	1	75.0-125			16.8		20
(T) Barium-133		72.7			82.2	62.4							

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

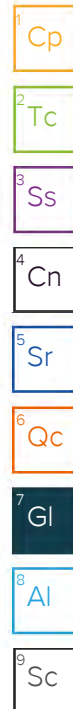
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

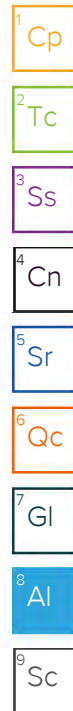
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



SUBCONTRACT ORDER
Transfer Chain of Custody

F036

Pace Analytical Services, LLC

GJ04134

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Allorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, TN
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

11670209

Sample: GJ04134-01
Name: G57S

Sampled: 10/20/23 12:47
Matrix: Ground Water
Preservative: HNO₃, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/02/23 16:00	04/17/24 12:47	

CEAS 18.0TD

Sample Receipt Checklist

✓ Seal Present/Intact: *Y* N

✓ Label/Accession: *Y* N

✓ Bottles Secure/Intact: *Y* N

✓ Correct bottles used: *Y* N

✓ Sufficient volume sent: *Y* N

✓ A Screen <0.5 µR/hr: *Y* N

VOL Zero Headspace: *Y* N

Pres. Correct/Check: *Y* N

1260000

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/24/23 Total # of Containers: 1 Sample Origin (State): IL PO #:

Turn-Around Time Requested ☒ NORMAL ☐ RUSH Date Results Needed:

Relinquished By <i>[Signature]</i>	Date/Time <i>10/24/23 1:00</i>	Received By	Date/Time	Sample Temperature Upon Receipt	____ °C
				Sample(s) Received on Ice	<u> </u> Y or N
				Proper Bottles Received in Good Condition	<u> </u> Y or N
				Bottles Filled with Adequate Volume	<u> </u> Y or N
				Samples Received Within Hold Time	<u> </u> Y or N
Relinquished By	Date/Time	Received By <i>Christopher J. Helms</i>	Date/Time <i>10/23/23 6:00</i>	Date/Time Taken From Sample Bottle	<u> </u> Y or N



ANALYTICAL REPORT

November 20, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1672534

Samples Received: 10/31/2023

Project Number: GH04374

Description:

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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Pace Analytical National

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

100

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GH04374

SDG:
L1672534

DATE/TIME:
11/20/23 09:35

PAGE:
1 of 17

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³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SAMPLE SUMMARY

GJ04374-01 L1672534-01 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/24/23 12:48

10/31/23 00:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2165571	1	11/06/23 18:28	11/11/23 11:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/11/23 11:15	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GJ04374-02 L1672534-02 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/24/23 11:29

10/31/23 00:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2165571	1	11/06/23 18:28	11/11/23 11:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/11/23 11:15	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04374-03 L1672534-03 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/24/23 15:03

10/31/23 00:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2165571	1	11/06/23 18:28	11/11/23 11:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/11/23 11:15	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04374-04 L1672534-04 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/24/23 15:30

10/31/23 00:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2165571	1	11/06/23 18:28	11/11/23 11:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/11/23 11:15	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04374-05 L1672534-05 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/24/23 11:29

10/31/23 00:00

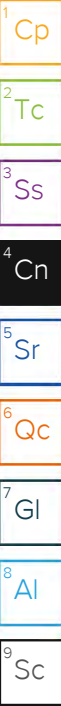
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.280	U	0.607		1.10		11/11/2023 11:15	WG2165571
(T) Barium	108					30.0-143	11/11/2023 11:15	WG2165571
(T) Yttrium	109					30.0-136	11/11/2023 11:15	WG2165571

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.493	J	0.659	1.11	11/11/2023 11:15	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.493		0.256		0.162		11/08/2023 22:53	WG2164135
(T) Barium-133	81.5					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.913		0.404		0.699		11/11/2023 11:15	WG2165571
(T) Barium	124					30.0-143	11/11/2023 11:15	WG2165571
(T) Yttrium	106					30.0-136	11/11/2023 11:15	WG2165571

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.10		0.436	0.717	11/11/2023 11:15	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.191		0.163		0.161		11/08/2023 22:53	WG2164135
(T) Barium-133	81.9					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.721	J	0.707		1.25		11/11/2023 11:15	WG2165571
(T) Barium	128					30.0-143	11/11/2023 11:15	WG2165571
(T) Yttrium	95.9					30.0-136	11/11/2023 11:15	WG2165571

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.972	J	0.729	1.26	11/11/2023 11:15	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.251		0.178		0.165		11/08/2023 22:53	WG2164135
(T) Barium-133	89.9					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.744		0.288		0.496		11/11/2023 11:15	WG2165571
(T) Barium	118					30.0-143	11/11/2023 11:15	WG2165571
(T) Yttrium	114					30.0-136	11/11/2023 11:15	WG2165571

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.878		0.319	0.523	11/11/2023 11:15	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.134	J	0.137		0.166		11/08/2023 22:53	WG2164135
(T) Barium-133	88.9					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.782		0.215		0.357		11/13/2023 17:36	WG2166563
(T) Barium	112					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	106					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.860		0.244	0.398	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0782	J	0.115		0.175		11/08/2023 22:53	WG2164135
(T) Barium-133	85.0					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3999853-1 11/11/23 11:15

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.392		0.180	0.312	
(T) Barium	125		125		
(T) Yttrium	117		117		

L1667014-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1667014-01 11/11/23 11:15 • (DUP) R3999853-5 11/11/23 11:15

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.0114	0.271	0.487		0.783	0.335	0.580		200	1.84		20	3
(T) Barium	122				105	105							
(T) Yttrium	107				115	115							

Laboratory Control Sample (LCS)

(LCS) R3999853-2 11/11/23 11:15

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.69	114	80.0-120	
(T) Barium			107		
(T) Yttrium			110		

L1666683-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-09 11/11/23 11:15 • (MS) R3999853-3 11/11/23 11:15 • (MSD) R3999853-4 11/11/23 11:15

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.175	9.64	10.1	94.7	98.9	1	70.0-130			4.32		20
(T) Barium		116			119	121							
(T) Yttrium		98.7			98.7	98.5							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R3999867-1 11/13/23 17:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.110	U	0.183	0.323	
(T) Barium	114		114		
(T) Yttrium	94.9		94.9		

L1672545-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-07 11/13/23 17:36 • (DUP) R3999867-5 11/13/23 17:36

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.273	0.267	0.480		0.546	0.345	0.598		200	1.88	J	20	3
(T) Barium	118				111	111							
(T) Yttrium	103				109	109							

Laboratory Control Sample (LCS)

(LCS) R3999867-2 11/13/23 17:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.96	99.1	80.0-120	
(T) Barium			114		
(T) Yttrium			98.7		

L1666683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-01 11/13/23 17:36 • (MS) R3999867-3 11/13/23 17:36 • (MSD) R3999867-4 11/13/23 17:36

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.63	8.90	10.1	72.6	84.4	1	70.0-130			12.4		20
(T) Barium		125			122	122							
(T) Yttrium		110			113	106							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4002379-1 11/08/23 22:53

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0217	U	0.0449	0.0811	
(T) Barium-133	51.7		51.7		

L1672545-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-01 11/08/23 22:53 • (DUP) R4002379-5 11/08/23 22:53

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0851	0.109	0.150		0.167	0.180	0.215		64.9	0.388	J	20	3
(T) Barium-133	85.8				70.8	70.8							

Laboratory Control Sample (LCS)

(LCS) R4002379-2 11/08/23 22:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.50	110	80.0-120	
(T) Barium-133			67.9		

L1670210-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670210-09 11/08/23 22:53 • (MS) R4002379-3 11/08/23 22:53 • (MSD) R4002379-4 11/08/23 22:53

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.00828	21.9	22.8	109	114	1	75.0-125			4.12		20
(T) Barium-133		81.8			82.8	76.6							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

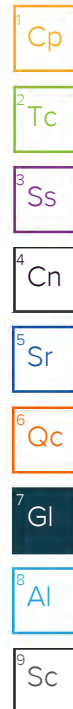
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

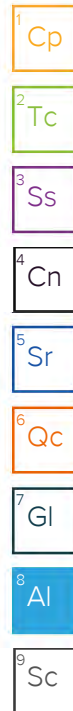
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

A221

GJ04374

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altoner Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

4672531

Sample: GJ04374-01
Name: OR20

Sampled: 10/24/23 12:48
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/06/23 16:00

04/21/24 12:48

Sample: GJ04374-02
Name: OR11

Sampled: 10/24/23 11:29
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/06/23 16:00

04/21/24 11:29

Sample: GJ04374-03
Name: OM16

Sampled: 10/24/23 15:03
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/06/23 16:00

04/21/24 15:03

Sample: GJ04374-04
Name: EB-4

Sampled: 10/24/23 15:30
Matrix: DI Water
Preservative: HNO3, pH <2

-04

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/06/23 16:00

04/21/24 15:30

Sample: GJ04374-05
Name: OR-11 FD

Sampled: 10/24/23 11:29
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/06/23 16:00

04/21/24 11:29

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04374

4472534

Sample Receipt Checklist

COC Seal Present/Intact:	<u>Y</u> <u>N</u>	If Applicable
COC Signed/Accurate:	<u>Y</u> <u>N</u>	VOA Zero Headspace:
Bottles active intact:	<u>Y</u> <u>N</u>	Pres. Correct/Check:
Correct bottles used:	<u>Y</u> <u>N</u>	
Sufficient volume sent:	<u>Y</u> <u>N</u>	
PA Screen <0.5 mR/hr:	<u>Y</u> <u>N</u>	

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/27/23 Total # of Containers: 5 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time	Sample Temperature Upon Receipt	_____ °C
				Sample(s) Received on Ice	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Proper Bottles Received in Good Condition	Y or N
				Bottles Filled with Adequate Volume	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Samples Received Within Hold Time	Y or N
				Date/Time Taken From Sample Bottle	Y or N



ANALYTICAL REPORT

November 20, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1672539

Samples Received: 10/31/2023

Project Number: GH04588

Description:

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

116

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GH04588

SDG:
L1672539

DATE/TIME:
11/20/23 09:36

PAGE:
1 of 17

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¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

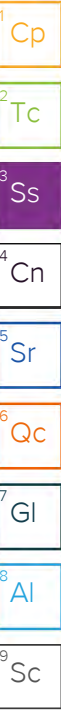
SAMPLE SUMMARY

GJ04588-01 L1672539-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/25/23 10:15 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN



GJ04588-02 L1672539-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/25/23 15:38 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04588-03 L1672539-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/25/23 11:37 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04588-04 L1672539-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/25/23 14:20 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04588-05 L1672539-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/05/23 13:00 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04588-06 L1672539-06 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/25/23 15:53 10/31/23 09:00

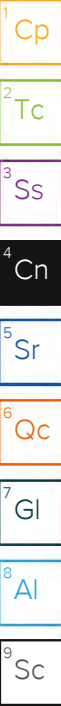
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.837		0.278		0.469		11/13/2023 17:36	WG2166563
(T) Barium	113					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	109					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.23		0.347	0.493	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.392		0.208		0.151		11/08/2023 22:53	WG2164135
(T) Barium-133	95.6					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.793		0.401		0.689		11/13/2023 17:36	WG2166563
(T) Barium	108					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	78.8					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.39		0.474	0.702	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.596		0.253		0.133		11/08/2023 22:53	WG2164135
(T) Barium-133	93.9					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.0183	U	0.413		0.733		11/13/2023 17:36	WG2166563
(T) Barium	106					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	84.4					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.500	J	0.487	0.752	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.482		0.259		0.170		11/08/2023 22:53	WG2164135
(T) Barium-133	78.4					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.77		0.556		0.934		11/13/2023 17:36	WG2166563
(T) Barium	98.5					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	108					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.65		0.635	0.943	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.873		0.306		0.133		11/08/2023 22:53	WG2164135
(T) Barium-133	103					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.12		0.522		0.896		11/13/2023 17:36	WG2166563
(T) Barium	108					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	95.1					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.15		0.620	0.906	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	1.03		0.335		0.136		11/08/2023 22:53	WG2164135
(T) Barium-133	92.1					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.127	U	0.258		0.467		11/13/2023 17:36	WG2166563
(T) Barium	126					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	79.4					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0747	U	0.275	0.485	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0747	J	0.0960		0.132		11/08/2023 22:53	WG2164135
(T) Barium-133	98.6					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3999867-1 11/13/23 17:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.110	U	0.183	0.323	
(T) Barium	114		114		
(T) Yttrium	94.9		94.9		

L1672545-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-07 11/13/23 17:36 • (DUP) R3999867-5 11/13/23 17:36

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.273	0.267	0.480		0.546	0.345	0.598		200	1.88	J	20	3
(T) Barium	118				111	111							
(T) Yttrium	103				109	109							

Laboratory Control Sample (LCS)

(LCS) R3999867-2 11/13/23 17:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.96	99.1	80.0-120	
(T) Barium			114		
(T) Yttrium			98.7		

L1666683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-01 11/13/23 17:36 • (MS) R3999867-3 11/13/23 17:36 • (MSD) R3999867-4 11/13/23 17:36

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.63	8.90	10.1	72.6	84.4	1	70.0-130			12.4		20
(T) Barium		125			122	122							
(T) Yttrium		110			113	106							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R4002379-1 11/08/23 22:53

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0217	U	0.0449	0.0811	
(T) Barium-133	51.7		51.7		

L1672545-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-01 11/08/23 22:53 • (DUP) R4002379-5 11/08/23 22:53

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0851	0.109	0.150		0.167	0.180	0.215		64.9	0.388	J	20	3
(T) Barium-133	85.8				70.8	70.8							

Laboratory Control Sample (LCS)

(LCS) R4002379-2 11/08/23 22:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.50	110	80.0-120	
(T) Barium-133			67.9		

L1670210-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670210-09 11/08/23 22:53 • (MS) R4002379-3 11/08/23 22:53 • (MSD) R4002379-4 11/08/23 22:53

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.00828	21.9	22.8	109	114	1	75.0-125			4.12		20
(T) Barium-133		81.8			82.8	76.6							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

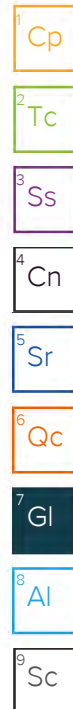
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

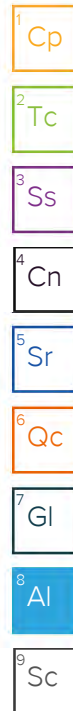
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04588

A220

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LU72589

Sample: GJ04588-01
Name: OM04S

Sampled: 10/25/23 10:15
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/07/23 16:00

04/22/24 10:15

Sample: GJ04588-02
Name: OM21

Sampled: 10/25/23 15:38
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/07/23 16:00

04/22/24 15:38

Sample: GJ04588-03
Name: OR04D

Sampled: 10/25/23 11:37
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/07/23 16:00

04/22/24 11:37

Sample: GJ04588-04
Name: OR14D

Sampled: 10/25/23 14:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/07/23 16:00

04/22/24 14:20

Sample: GJ04588-05
Name: OR19

Sampled: 10/05/23 13:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/07/23 16:00

04/02/24 13:00

SUBCONTRACT ORDER Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04588

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Alton Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

U67581

Sample: GJ04588-06
Name: EB-5

Sampled: 10/25/23 15:53
Matrix: DI Water
Preservative: HNO3, pH <2

-OK

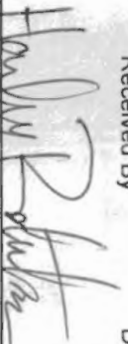
Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/07/23 16:00	04/22/24 15:53	

Sample Receipt Checklist
If Applicable

COT seal present/Intact:	☒	VCA Zero Headspace:	☒
COT signed/Accurate:	☒	Eres. Correct/Check:	☒
Bottles active intact:	☒		
Correct bottles used:	☒		
Sufficient volume sent:	☒		
PA screen < 0.5 mR/hr:	☒		

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/27/23 Total # of Containers: 5 Sample Origin (State): IL PO #: _____
Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time	Sample Temperature Upon Receipt	____ °C
	10/27/23 1830		10/31/23 0900	Sample(s) Received on Ice	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Proper Bottles Received in Good Condition	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Bottles Filled with Adequate Volume	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Samples Received Within Hold Time	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or N



ANALYTICAL REPORT

December 01, 2023

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group: L1672549

Samples Received: 10/31/2023

Project Number: GJ04862

Description:

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

132

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GJ04862

SDG:
L1672549

DATE/TIME:
12/01/23 10:08

PAGE:
1 of 25

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

GJ04862-01 L1672549-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/26/23 11:55 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN



GJ04862-02 L1672549-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/26/23 15:31 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-03 L1672549-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/26/23 13:53 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-04 L1672549-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/26/23 13:38 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-05 L1672549-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/26/23 12:04 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-06 L1672549-06 Non-Potable Water

Collected by
Collected date/time
Received date/time

10/26/23 10:45 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

GJ04862-07 L1672549-07 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/26/23 14:40

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GJ04862-08 L1672549-08 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/26/23 13:23

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

EB-6 L1672549-09 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/26/23 14:58

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

EB-7 L1672549-10 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/26/23 15:25

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

CASE NARRATIVE

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

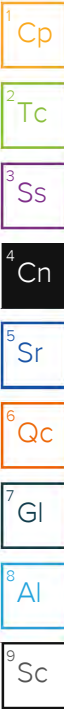
[Preliminary Report]


Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 11/29/23 14:34
Level II Report - Version 2: 11/30/23 11:10

Project Narrative



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.881		0.282		0.476		11/13/2023 17:36	WG2166563
(T) Barium	113					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	119					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.30		0.357	0.496	11/13/2023 17:36	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.422		0.219		0.138		11/07/2023 23:36	WG2164497
(T) Barium-133	87.6					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.112	U	0.304		0.541		11/13/2023 17:36	WG2166563
(T) Barium	113					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	87.2					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0485	U	0.332	0.593	11/13/2023 17:36	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0485	U	0.134		0.243		11/07/2023 23:36	WG2164497
(T) Barium-133	87.4					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.771		0.320		0.545		11/13/2023 17:36	WG2166563
(T) Barium	111					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	90.4					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.812		0.348	0.597	11/13/2023 17:36	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0416	U	0.138		0.244		11/07/2023 23:36	WG2164497
(T) Barium-133	94.3					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.101	U	0.299		0.525		11/13/2023 17:36	WG2166563
(T) Barium	125					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	105					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.492	J	0.380	0.568	11/13/2023 17:36	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.391		0.235		0.218		11/07/2023 23:36	WG2164497
(T) Barium-133	88.1					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.434	J	0.306		0.530		11/13/2023 17:36	WG2166563
(T) Barium	104					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	97.3					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.681		0.430	0.680	11/13/2023 17:36	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.247	J	0.302		0.426		11/07/2023 23:36	WG2164497
(T) Barium-133	73.9					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.666		0.312		0.531		11/15/2023 17:04	WG2168338
(T) Barium	92.8					30.0-143	11/15/2023 17:04	WG2168338
(T) Yttrium	98.7					30.0-136	11/15/2023 17:04	WG2168338

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.24		0.437	0.609	11/15/2023 17:04	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.574		0.306		0.299		11/07/2023 23:36	WG2164497
(T) Barium-133	96.0					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.620		0.272		0.462		11/15/2023 17:04	WG2168338
(T) Barium	100					30.0-143	11/15/2023 17:04	WG2168338
(T) Yttrium	103					30.0-136	11/15/2023 17:04	WG2168338

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.17		0.396	0.525	11/15/2023 17:04	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.549		0.288		0.250		11/07/2023 23:36	WG2164497
(T) Barium-133	91.1					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.286	U	0.316		0.561		11/15/2023 17:04	WG2168338
(T) Barium	97.2					30.0-143	11/15/2023 17:04	WG2168338
(T) Yttrium	110					30.0-136	11/15/2023 17:04	WG2168338

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.440	J	0.419	0.630	11/15/2023 17:04	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.440		0.275		0.287		11/07/2023 23:36	WG2164497
(T) Barium-133	84.9					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.540		0.298		0.509		11/15/2023 17:04	WG2168338
(T) Barium	104					30.0-143	11/15/2023 17:04	WG2168338
(T) Yttrium	101					30.0-136	11/15/2023 17:04	WG2168338

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.580		0.328	0.577	11/15/2023 17:04	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0408	U	0.138		0.272		11/07/2023 23:36	WG2164497
(T) Barium-133	73.1					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.215	U	0.307		0.543		11/15/2023 17:04	WG2168338
(T) Barium	114					30.0-143	11/15/2023 17:04	WG2168338
(T) Yttrium	110					30.0-136	11/15/2023 17:04	WG2168338

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.179	U	0.380	0.631	11/15/2023 17:04	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.179	J	0.224		0.321		11/07/2023 23:36	WG2164497
(T) Barium-133	69.9					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3999867-1 11/13/23 17:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.110	U	0.183	0.323	
(T) Barium	114		114		
(T) Yttrium	94.9		94.9		

L1672545-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-07 11/13/23 17:36 • (DUP) R3999867-5 11/13/23 17:36

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.273	0.267	0.480		0.546	0.345	0.598		200	1.88	J	20	3
(T) Barium	118				111	111							
(T) Yttrium	103				109	109							

Laboratory Control Sample (LCS)

(LCS) R3999867-2 11/13/23 17:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.96	99.1	80.0-120	
(T) Barium			114		
(T) Yttrium			98.7		

L1666683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-01 11/13/23 17:36 • (MS) R3999867-3 11/13/23 17:36 • (MSD) R3999867-4 11/13/23 17:36

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.63	8.90	10.1	72.6	84.4	1	70.0-130			12.4		20
(T) Barium		125			122	122							
(T) Yttrium		110			113	106							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R4005409-1 11/15/23 17:04

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.187	J	0.171	0.298	
(T) Barium	102		102		
(T) Yttrium	99.6		99.6		

L1672549-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1672549-10 11/15/23 17:04 • (DUP) R4005409-3 11/15/23 17:04

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.215	0.307	0.543		0.257	0.342	0.598		200	1.03	J	20	3
(T) Barium	114				112	112							
(T) Yttrium	110				101	101							

Laboratory Control Sample (LCS)

(LCS) R4005409-2 11/15/23 17:04

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.23	84.7	80.0-120	
(T) Barium			118		
(T) Yttrium			107		

L1668230-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1668230-08 11/22/23 21:28 • (MS) R4005409-6 11/22/23 21:28 • (MSD) R4005409-7 11/22/23 21:28

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	6.02	11.7	12.9	57.2	68.6	1	70.0-130	J6	J6	9.26		20
(T) Barium		84.8			104	103							
(T) Yttrium		105			98.9	114							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3999792-1 11/07/23 23:35

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.000	U	0.0489	0.0955	
(T) Barium-133	67.9		67.9		

L1672549-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1672549-09 11/07/23 23:36 • (DUP) R3999792-5 11/07/23 23:35

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0408	0.138	0.272		0.118	0.298	0.471		97.1	0.234	U	20	3
(T) Barium-133	73.1				61.6	61.6							

Laboratory Control Sample (LCS)

(LCS) R3999792-2 11/07/23 23:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.47	109	80.0-120	
(T) Barium-133			78.8		

L1671796-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671796-01 11/07/23 23:36 • (MS) R3999792-3 11/07/23 23:35 • (MSD) R3999792-4 11/07/23 23:35

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.202	21.0	22.6	104	112	1	75.0-125			7.07		20
(T) Barium-133		70.2			67.7	71.3							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

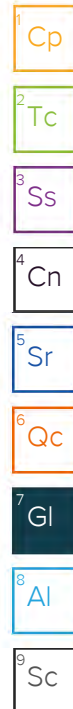
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
U	Below Detectable Limits: Indicates that the analyte was not detected.



ACCREDITATIONS & LOCATIONS

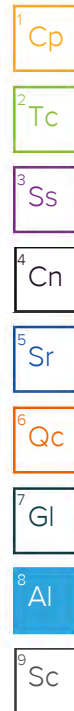
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



SUBCONTRACT ORDER Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04862

11072549

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GJ04862-06 Name: OM12				Sampled: 10/26/23 10:45 Matrix: Ground Water Preservative: HNO3, pH <2		-06
Analysis	Due	Expires	Comments			
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 10:45				
Sample: GJ04862-07 Name: OR06A				Sampled: 10/26/23 14:40 Matrix: Ground Water Preservative: HNO3, pH <2		-07
Analysis	Due	Expires	Comments			
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 14:40				
Sample: GJ04862-08 Name: OR13D				Sampled: 10/26/23 13:23 Matrix: Ground Water Preservative: HNO3, pH <2		-08
Analysis	Due	Expires	Comments			
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 13:23				
Sample: GJ04862-09 Name: Equipment Blank 7				Sampled: 10/26/23 14:58 Matrix: DI Water Preservative: HNO3, pH <2		-09
Analysis	Due	Expires	Comments			
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 14:58				
Sample: GJ04862-10 Name: Equipment Blank 8				Sampled: 10/26/23 15:25 Matrix: DI Water Preservative: HNO3, pH <2		-10
Analysis	Due	Expires	Comments			
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 15:25				

SUBCONTRACT ORDER Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04862

A218

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, TN
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

U1672549

Sample: GJ04862-01
Name: G51S

Sampled: 10/26/23 11:55
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/08/23 16:00

04/23/24 11:55

Sample: GJ04862-02
Name: G62L

Sampled: 10/26/23 15:31
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/08/23 16:00

04/23/24 15:31

Sample: GJ04862-03
Name: G64L

Sampled: 10/26/23 13:53
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/08/23 16:00

04/23/24 13:53

Sample: GJ04862-04
Name: G64S

Sampled: 10/26/23 13:38
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/08/23 16:00

04/23/24 13:38

Sample: GJ04862-05
Name: OM07

Sampled: 10/26/23 12:04
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/08/23 16:00

04/23/24 12:04

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04862

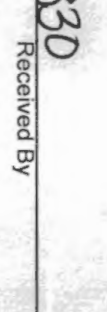
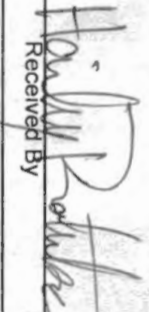
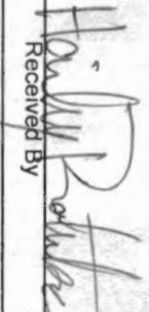
11672549

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/27/23 Total # of Containers: 10 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Sample Receipt Checklist
 COT Seal Present/Intact: Y If Applicable
 DO Signed/Accurate: Y VOA Zero Headspace: Y
 Solids Active Intact: Y Fees: Correct/Check: Y
 Collect bottles used: Y
 Sufficient Volume sent: Y
 PA Green 40.5 mL/hr: Y

Relinquished By	Date/Time	Received By	Date/Time	Sample Temperature Upon Receipt	_____ °C
	10/26/23 1830		10/31/23	Sample(s) Received on Ice	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Proper Bottles Received in Good Condition	Y or N
			0900	Bottles Filled with Adequate Volume	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Samples Received Within Hold Time	Y or N
				Date/Time Taken From Sample Bottle	Y or N



ANALYTICAL REPORT

November 29, 2023

Revised Report

Pace IR - Peoria, IL

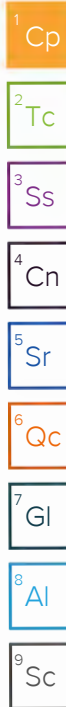
Sample Delivery Group: L1672545

Samples Received: 10/31/2023

Project Number: GJ04998

Description:

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615



Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

155

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GJ04998

SDG:
L1672545

DATE/TIME:
11/29/23 14:38

PAGE:
1 of 23

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

GJ04998-01 L1672545-01 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/27/23 13:38

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GJ04998-02 L1672545-02 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/27/23 11:54

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04998-03 L1672545-03 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/27/23 13:30

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04998-04 L1672545-04 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/27/23 13:40

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04998-05 L1672545-05 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/27/23 13:40

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04998-06 L1672545-06 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/27/23 15:43

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

GJ04998-07 L1672545-07 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/27/23 15:40

10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

CASE NARRATIVE

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

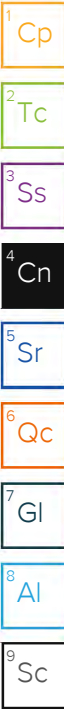
[Preliminary Report]


Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 11/21/23 09:26

Project Narrative



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.0926	U	0.204		0.363		11/13/2023 17:36	WG2166563
(T) Barium	126					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	101					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.178	J	0.231	0.393	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0851	J	0.109		0.150		11/08/2023 22:53	WG2164135
(T) Barium-133	85.8					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.732		0.214		0.358		11/13/2023 17:36	WG2166563
(T) Barium	111					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	124					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.14		0.447	0.383	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	1.41		0.393		0.137		11/08/2023 22:53	WG2164135
(T) Barium-133	94.1					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.22		0.511		0.871		11/13/2023 17:36	WG2166563
(T) Barium	96.6					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	102					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	4.54		0.794	0.882	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	3.32		0.608		0.140		11/08/2023 22:53	WG2164135
(T) Barium-133	94.6					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.57		0.608		1.03		11/13/2023 17:36	WG2166563
(T) Barium	94.1					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	90.1					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.13		0.657	1.04	11/13/2023 17:36	WG2164135

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.557		0.249		0.137		11/08/2023 22:53	WG2164135
(T) Barium-133	98.4					30.0-143	11/08/2023 22:53	WG2164135

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.0788	U	0.279		0.495		11/13/2023 17:36	WG2166563
(T) Barium	105					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	106					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.19		0.484	0.549	11/13/2023 17:36	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	1.19		0.395		0.238		11/07/2023 23:36	WG2164497
(T) Barium-133	82.3					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.111	U	0.233		0.412		11/13/2023 17:36	WG2166563
(T) Barium	114					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	108					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.212	J	0.266	0.448	11/13/2023 17:36	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.101	J	0.129		0.177		11/07/2023 23:36	WG2164497
(T) Barium-133	76.9					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.273	U	0.267		0.480		11/13/2023 17:36	WG2166563
(T) Barium	118					30.0-143	11/13/2023 17:36	WG2166563
(T) Yttrium	103					30.0-136	11/13/2023 17:36	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.155	U	0.304	0.505	11/13/2023 17:36	WG2164497

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.155	J	0.146		0.158		11/07/2023 23:36	WG2164497
(T) Barium-133	71.9					30.0-143	11/07/2023 23:36	WG2164497

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3999867-1 11/13/23 17:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.110	U	0.183	0.323	
(T) Barium	114		114		
(T) Yttrium	94.9		94.9		

L1672545-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-07 11/13/23 17:36 • (DUP) R3999867-5 11/13/23 17:36

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.273	0.267	0.480		0.546	0.345	0.598		200	1.88	J	20	3
(T) Barium	118				111	111							
(T) Yttrium	103				109	109							

Laboratory Control Sample (LCS)

(LCS) R3999867-2 11/13/23 17:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.96	99.1	80.0-120	
(T) Barium			114		
(T) Yttrium			98.7		

L1666683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-01 11/13/23 17:36 • (MS) R3999867-3 11/13/23 17:36 • (MSD) R3999867-4 11/13/23 17:36

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.63	8.90	10.1	72.6	84.4	1	70.0-130			12.4		20
(T) Barium		125			122	122							
(T) Yttrium		110			113	106							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4002379-1 11/08/23 22:53

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0217	U	0.0449	0.0811	
(T) Barium-133	51.7		51.7		

L1672545-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-01 11/08/23 22:53 • (DUP) R4002379-5 11/08/23 22:53

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0851	0.109	0.150		0.167	0.180	0.215		64.9	0.388	J	20	3
(T) Barium-133	85.8				70.8	70.8							

Laboratory Control Sample (LCS)

(LCS) R4002379-2 11/08/23 22:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.50	110	80.0-120	
(T) Barium-133			67.9		

L1670210-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670210-09 11/08/23 22:53 • (MS) R4002379-3 11/08/23 22:53 • (MSD) R4002379-4 11/08/23 22:53

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.00828	21.9	22.8	109	114	1	75.0-125			4.12		20
(T) Barium-133		81.8			82.8	76.6							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gf

8Al

9Sc

Method Blank (MB)

(MB) R3999792-1 11/07/23 23:35

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.000	U	0.0489	0.0955	
(T) Barium-133	67.9		67.9		

L1672549-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1672549-09 11/07/23 23:36 • (DUP) R3999792-5 11/07/23 23:35

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0408	0.138	0.272		0.118	0.298	0.471		97.1	0.234	U	20	3
(T) Barium-133	73.1				61.6	61.6							

Laboratory Control Sample (LCS)

(LCS) R3999792-2 11/07/23 23:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.47	109	80.0-120	
(T) Barium-133			78.8		

L1671796-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671796-01 11/07/23 23:36 • (MS) R3999792-3 11/07/23 23:35 • (MSD) R3999792-4 11/07/23 23:35

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.202	21.0	22.6	104	112	1	75.0-125			7.07		20
(T) Barium-133		70.2			67.7	71.3							

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

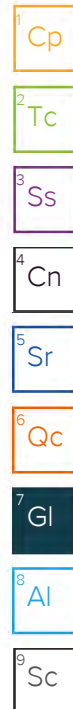
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

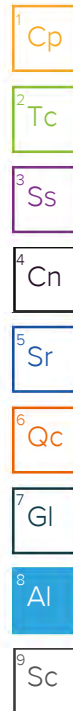
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



SUBCONTRACT ORDER Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04998

11672545

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altiorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: GJ04998-05
Name: OM01 DUP

Sampled: 10/27/23 13:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:40

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:40

Sample: GJ04998-06
Name: EQUIP BLANK-9

EB-8
del 10/27/23

Sampled: 10/27/23 13:40
Matrix: Ground Water
Preservative: HNO3, pH <2

1543 10/27/23
-06 del

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:40

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:40

Sample: GJ04998-07
Name: EQUIP BLANK-10

EB-9
del 10/27/23

Sampled: 10/27/23 13:40
Matrix: Ground Water
Preservative: HNO3, pH <2

1540 10/27/23
-07 del

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:40

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:40

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

A219

GJ04998

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altiorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L11072545

Sample: GJ04998-01
Name: G54L

Sampled: 10/27/23 13:38
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:38

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:38

Sample: GJ04998-02
Name: G54S

Sampled: 10/27/23 11:54
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 11:54

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 11:54

Sample: GJ04998-03
Name: OR02

Sampled: 10/27/23 11:54
Matrix: Ground Water
Preservative: HNO3, pH <2

*1330 10/27/23
-03 ddb*

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 11:54

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 11:54

Sample: GJ04998-04
Name: OMO1

Sampled: 10/27/23 13:30
Matrix: Ground Water
Preservative: HNO3, pH <2

*1340 10/27/23
-01 ddb*

Analysis

Due

Expires

Comments

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:30

01-Radium 226/228 combined

11/09/23 16:00

04/24/24 13:30

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04998

44072545

GC Seal Present/Intact: Y
GC Signed/Accurate: Y
Bottles Airtight: Y
Correct Bottle Intact: Y
Sufficient Volume Used: Y
RA Screen (0.5 mR/hr): Y
Sample Receipt Checklist
VOA Zero Headspace: Y
Pres. Correct Check: Y

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/27/20 Total # of Containers: 7 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time	Sample Temperature Upon Receipt	Sample(s) Received on Ice	Proper Bottles Received in Good Condition	Bottles Filled with Adequate Volume	Samples Received Within Hold Time	Date/Time Taken From Sample Bottle
<u>[Signature]</u>	<u>10/27/23 1830</u>	<u>[Signature]</u>	<u>10/31/23</u>	____ °C	<u>Y</u> or <u>N</u>	<u>Y</u> or <u>N</u>	<u>Y</u> or <u>N</u>	<u>Y</u> or <u>N</u>	
Relinquished By	Date/Time	Received By	Date/Time						
<u>[Signature]</u>	<u>10/27/23</u>	<u>[Signature]</u>	<u>10/31/23</u>						
Relinquished By	Date/Time	Received By	Date/Time						



ANALYTICAL REPORT

November 30, 2023

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Pace IR - Peoria, IL

Sample Delivery Group: L1673772
Samples Received: 11/03/2023
Project Number: GJ05392
Description:
Site: 01
Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence
[Preliminary Report]

Haley Torrence
Project Manager

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

Pace Analytical National

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

175

ACCOUNT:
Pace IR - Peoria, IL

PROJECT:
GJ05392

SDG:
L1673772

DATE/TIME:
11/30/23 10:24

PAGE:
1 of 13

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

GJ05392-01 L1673772-01 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/31/23 10:27

11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GJ05392-02 L1673772-02 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/31/23 11:40

11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	Mt. Juliet, TN

GJ05392-03 L1673772-03 Non-Potable Water

Collected by

Collected date/time

Received date/time

10/31/23 14:27

11/03/23 09:00

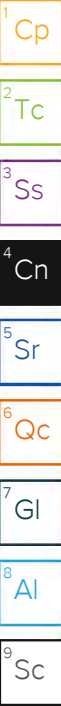
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	Mt. Juliet, TN

CASE NARRATIVE

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

[Preliminary Report]


Haley Torrence
Project Manager



Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.673	J	0.642		1.12		11/21/2023 14:19	WG2171834
(T) Barium	112					30.0-143	11/21/2023 14:19	WG2171834
(T) Yttrium	121					30.0-136	11/21/2023 14:19	WG2171834

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.55		0.729	1.15	11/21/2023 14:19	WG2166556

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/g		+ / -	+ / -	pCi/g	pCi/g	date / time	
RADIUM-226	0.879		0.346	0.157	0.240	0.168	11/13/2023 17:48	WG2166556
(T) Barium-133	88.3					30.0-143	11/13/2023 17:48	WG2166556

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.440	J	0.264		0.456		11/21/2023 14:19	WG2171834
(T) Barium	122					30.0-143	11/21/2023 14:19	WG2171834
(T) Yttrium	101					30.0-136	11/21/2023 14:19	WG2171834

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.636		0.320	0.511	11/21/2023 14:19	WG2166556

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/g		+ / -	+ / -	pCi/g	pCi/g	date / time	
RADIUM-226	0.196	J	0.181	0.0856	0.231	0.155	11/13/2023 17:48	WG2166556
(T) Barium-133	99.9					30.0-143	11/13/2023 17:48	WG2166556

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.591		0.329		0.568		11/21/2023 14:19	WG2171834
(T) Barium	125					30.0-143	11/21/2023 14:19	WG2171834
(T) Yttrium	116					30.0-136	11/21/2023 14:19	WG2171834

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.739		0.368	0.610	11/21/2023 14:19	WG2166556

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/g		+ / -	+ / -	pCi/g	pCi/g	date / time	
RADIUM-226	0.148	J	0.165	0.0681	0.222	0.158	11/13/2023 17:48	WG2166556
(T) Barium-133	86.7					30.0-143	11/13/2023 17:48	WG2166556

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4005417-1 11/21/23 14:19

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.406		0.184	0.315	
(T) Barium	89.6		89.6		
(T) Yttrium	109		109		

L1673770-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1673770-04 11/21/23 14:19 • (DUP) R4005417-5 11/21/23 14:19

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.17	0.430	0.728		-0.0160	0.321	0.573		200	2.20	U	20	3
(T) Barium	113				105	105							
(T) Yttrium	94.9				118	118							

Laboratory Control Sample (LCS)

(LCS) R4005417-2 11/21/23 14:19

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.54	111	80.0-120	
(T) Barium			120		
(T) Yttrium			119		

L1673772-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1673772-03 11/21/23 14:19 • (MS) R4005417-3 11/21/23 14:19 • (MSD) R4005417-4 11/21/23 14:19

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.591	16.6	18.0	96.0	104	1	70.0-130			7.86		20
(T) Barium		125			112	111							
(T) Yttrium		116			104	114							

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4005932-1 11/13/23 17:48

Analyte	MB Result pCi/g	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/g	MB Lc pCi/g
Radium-226	0.00880	<u>U</u>	0.0323	0.0566	0.0350
(T) Barium-133	78.7		78.7		

L1673772-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1673772-03 11/13/23 17:48 • (DUP) R4005932-5 11/13/23 17:48

Analyte	Original Result pCi/g	Original 2 sigma CE + / -	Original MDA pCi/g	Original Lc pCi/g	DUP Result pCi/g	DUP 2 sigma CE + / -	DUP MDA pCi/g	DUP Lc pCi/g	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.148	0.165	0.222	0.158	-0.107	0.210	0.429	0.269	200	0.956	<u>U</u>	20	3
(T) Barium-133	86.7				67.6	67.6							

Laboratory Control Sample (LCS)

(LCS) R4005932-2 11/13/23 17:48

Analyte	Spike Amount pCi/g	LCS Result pCi/g	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.55	111	80.0-120	
(T) Barium-133			74.5		

L1664280-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-28 11/13/23 17:48 • (MS) R4005932-3 11/13/23 17:48 • (MSD) R4005932-4 11/13/23 17:48

Analyte	Spike Amount pCi/g	Original Result pCi/g	MS Result pCi/g	MSD Result pCi/g	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	1.15	24.3	25.2	116	120	1	75.0-125			3.68		20
(T) Barium-133		63.1			70.0	57.1							

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

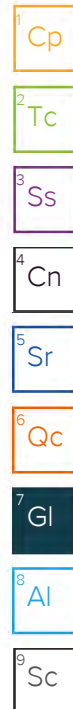
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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



ACCREDITATIONS & LOCATIONS

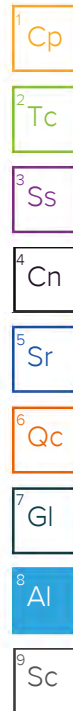
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
GJ05392

A092

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

4673772

Sample: GJ05392-01
Name: G60S

Sampled: 10/31/23 10:27
Matrix: Ground Water
Preservative: HNO3, pH <2

61

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 10:27	
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 10:27	

Sample: GJ05392-02
Name: R61L

Sampled: 10/31/23 11:40
Matrix: Ground Water
Preservative: HNO3, pH <2

62

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 11:40	
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 11:40	

Sample: GJ05392-03
Name: EB-11

Sampled: 10/31/23 14:27
Matrix: DI Water
Preservative: HNO3, pH <2

63

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 14:27	
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 14:27	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ05392

PH-10BDH4321 TRC-2162-62
CR6-20221V

Sample Receipt Checklist

CO Seal Present/Intact:	<u>Y</u>	If Applicable
COC Signed/Accurate:	<u>Y</u>	VOA Zero Headpace: <u>Y</u>
Bottles arrive intact:	<u>Y</u>	Pres. Correct/Check: <u>Y</u>
Correct bottles used:	<u>Y</u>	
Sufficient volume sent:	<u>Y</u>	
PA Screen <0.5 mR/hr:	<u>Y</u>	

12.2 ± 0 = 12.228 703 7808 0285 Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 11/2/23 Total # of Containers: 3 Sample Origin (State): K PO #: —

Turn-Around Time Requested ☒ NORMAL ☐ RUSH Date Results Needed: —

Relinquished By <u>[Signature]</u> <u>11/2/23 16:25</u> <u>[Signature]</u>		Sample Temperature Upon Receipt <u>—</u> °C
Date/Time	Received By <u>[Signature]</u>	Sample(s) Received on Ice <u>Y or N</u>
Date/Time	Date/Time	Proper Bottles Received in Good Condition <u>Y or N</u>
		Bottles Filled with Adequate Volume <u>Y or N</u>
		Samples Received Within Hold Time <u>Y or N</u>
Relinquished By	Date/Time	Date/Time Taken From Sample Bottle <u>Y or N</u>

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Requester Client Information

Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker
Address:	17751 North Ciko Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com Dary Johnson: Robert.Johnson@vistracorp.com
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:	
Phone:	(217) 753-8911	Project Name:	
Requested Due Date/TAT:	10 day	Project Number:	2285

Section B Requester Project Information

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Reference:	
Project Manager:	
Profile #	

Section C Invoice Information

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

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	Requested Analysis Filtered (Y/N)							Residual Chlorine (Y/N)	Project No./ Lab ID.
				DATE	TIME					DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205		
1	OM23S																	
2	OM24D																	
3	OM25D																	
4	OM25S																	
5	OR02																	
6	OR03D																	
7	OR03S																	
8	OR04D																	
9	OR05D																	
10	OR06A																	
11	OR11																	
12	OR13D																	
13	OR13S																	
14	OR14S																	
15	OR18																	
16	OR18																	

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
DC-23Q4 Rev 0			10/17/16	1651		10/17/16	1651	Temp in °C	16.3
								Received on Ice (Y/N)	Y
								Custody Sealed Cooler (Y/N)	N
								Samples Intact (Y/N)	Y

SAMPLER NAME AND SIGNATURE		DATE Signed (MM/DD/YY)	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Logan R. Co. S		10/17/2023	16.3	Y	N	Y
SIGNATURE of SAMPLER: [Signature]		10/17/2023				

CHAIN-OF-CUSTODY / Analytical Request Document

Section A Requester Client Information

Address	1751 North Clico Rd Canton, IL 61520	Copy To	Sam Davine: samantha.davine@visitracorp.com	Attention	Brian Voelker
Email To	Brian Voelker@visitracorp.com	Purchase Order No.	Darryl Johnson: Robert.Johnson@visitracorp.com	Company Name	Visitra Corp
Phone	(217) 753-8911	Project Name		Address	see Section A
Requested Due Date/TAT	10 day	Project Number	2285	Code	
				Reference	
				Manager	
				Profile #	

Section B Required Project Information

Section C

REGULATORY AGENCY	
NPDES	GROUND WATER
UST	RCRA
Site Location	IL
STATE:	IL
OTHER	
0503501	

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATERIALS CODE WATER WASTE WATER SLURRY SLUDGE GAS AIR OTHER	MATRIX CODE (see -and 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 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.	
												Y/N
1	BA01				10/18/23	13:25	4					
2	BA02				10/18/23	14:34	4					
3	BA02L				10/18/23	9:45	13	Red Only				No Sample
4	BA03				10/18/23	9:50	4					
5	BA03L				10/18/23	15:40	4					
6	BA04				10/18/23	13:25	4					
7	BA05				10/18/23	13:25	4					
8	BA01Dip				10/18/23	13:25	4					
9	BA01Dip				10/18/23	13:25	4					
10	G02D				10/18/23	13:25	4					
11	G02L				10/18/23	13:25	4					
12	G02S				10/18/23	13:25	4					
13	G03L				10/18/23	13:25	4					
14	G03S				10/18/23	13:25	4					
15	G04L				10/18/23	13:25	4					
16	G06L				10/18/23	13:25	4					
17	G06S				10/18/23	13:25	4					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-2304 Rev 0	Project A	10/18/23	17:13	Project A	10/18/23	17:13	Temp in °C Received on ice (Y/N) Custody Sealed Cooler (Y/N) Samples intact (Y/N)

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Section A Required Client Information:

Section B
Required Product Information:

Section C

Page: 1 of 10

Section D Required Client Information		Valid Matrix Codes		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Analysis Test		Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)											
ITEM #	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	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	Project No./ Lab I.D.	
1	BA01																								
2	BA02																								
3	BA02L																								
4	BA03																								
5	BA03L																								
6	BA04																								
7	BA05																								
8	BA06																								
9	G02D																								
10	G02L																								
11	G02S																								
12	G03L																								
13	G03S																								
14	G04L																								
15	G06L																								
16	G06S																								
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-23Q4 Rev 0		Joseph R. Riva		10/19/2016	1430	Joseph R. Riva		10/19/2016	1430			74.9		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 Client Information:						Section B Project Information:				Section C Invoice Information:							
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@VistraiCorp.com			Purchase Order No.:						Quote Reference					
IPhone: (217) 753-8911			Fax:			Project Name:						Project Manager					
Requested Due Date/FAT:			10 day			Project Number:			2285			Profile #					
												NPDES			GROUND WATER		
												UST			RCRA		
												OTHER			DRINKING WATER		
												Site Location			IL		
												STATE:			GSD-4132		
															040		

[illegible]

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		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com	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 D Required Client Information		Valid Matrix Codes		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	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 ID (A-Z, 0-9 / -)	Sample ID (A-Z, 0-9 / -)	Sample ID (A-Z, 0-9 / -)
1	G53S	G53S	G53S	G53S	G53S	G53S	G53S
2	G54L	G54L	G54L	G54L	G54L	G54L	G54L
3	G54S	G54S	G54S	G54S	G54S	G54S	G54S
4	G55L	G55L	G55L	G55L	G55L	G55L	G55L
5	G55S	G55S	G55S	G55S	G55S	G55S	G55S
6	G56L	G56L	G56L	G56L	G56L	G56L	G56L
7	G56S	G56S	G56S	G56S	G56S	G56S	G56S
8	G57L	G57L	G57L	G57L	G57L	G57L	G57L
9	G57S	G57S	G57S	G57S	G57S	G57S	G57S
10	G58L	G58L	G58L	G58L	G58L	G58L	G58L
11	G58S	G58S	G58S	G58S	G58S	G58S	G58S
12	G59L	G59L	G59L	G59L	G59L	G59L	G59L
13	G59S	G59S	G59S	G59S	G59S	G59S	G59S
14	G60L	G60L	G60L	G60L	G60L	G60L	G60L
15	G60S	G60S	G60S	G60S	G60S	G60S	G60S
16	G61S	G61S	G61S	G61S	G61S	G61S	G61S

Section E Additional Comments		Section F Relinquished By / Affiliation		Section G Accepted By / Affiliation		Section H Sample Conditions	
DC-23Q4 Rev 0		DATE: 10/23/23		DATE: 10/23/23		DATE: 10/23/23	
		TIME: 1735		TIME: 1734		TIME: 1734	
		SIGNATURE: [Signature]		SIGNATURE: [Signature]		SIGNATURE: [Signature]	
		PRINT Name of SAMPLER: [Signature]		PRINT Name of SAMPLER: [Signature]		PRINT Name of SAMPLER: [Signature]	
		SIGNATURE of SAMPLER: [Signature]		SIGNATURE of SAMPLER: [Signature]		SIGNATURE of SAMPLER: [Signature]	
		DATE Signed: 10/23/23		DATE Signed: 10/23/23		DATE Signed: 10/23/23	
		(MM/DD/YYYY)		(MM/DD/YYYY)		(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 C

Section 8

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[illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 6 of 10

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 Ciro Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com	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:	
				Project #	

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	MATRIX CODE	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE
1	OM23S	WT	DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE	10/23/23	10:49	G		WT	10/23/23	10:49											
2	OM24D	WT	DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE	10/23/23	11:30	G		WT	10/23/23	11:30											
3	OM25D	WT	DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE	10/23/23	11:30	G		WT	10/23/23	11:30											
4	OM25S	WT	DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE	10/23/23	11:30	G		WT	10/23/23	11:30											
5	OR02		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
6	OR03D		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
7	OR03S		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
8	OR04D		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
9	OR05D		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
10	OR06A		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
11	OR11		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
12	OR13D		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
13	OR13S		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
14	OR14D		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
15	OR14S		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		
16	OR18		DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSE																		

RECEIVED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
[Signature]		10/23/23	17:34	[Signature]	10/23/23	17:34	Temp in °C: 1.6
RELINQUISHED BY / AFFILIATION		DATE	TIME	SAMPLE NAME AND SIGNATURE			
[Signature]		10/23/23	17:34	PRINT Name 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:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco 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 #	

Section D Required Client Information		Valid Matrix Codes	
MATRIX CODE	Matrix	Matrix	Code
IRRIGATING WATER	DW		
WATER	WT		
WASTE WATER	WW		
INDUSTRIAL WASTE	SI		
SOIL SOLID	SL		
OIL	OL		
WPE	WP		
AIR	AR		
OTHER	OT		
TISSUE	TS		

Section E Required Project Information		Valid Matrix Codes	
MATRIX CODE	Matrix	Matrix	Code
IRRIGATING WATER	DW		
WATER	WT		
WASTE WATER	WW		
INDUSTRIAL WASTE	SI		
SOIL SOLID	SL		
OIL	OL		
WPE	WP		
AIR	AR		
OTHER	OT		
TISSUE	TS		

Section F Required Client Information		Valid Matrix Codes	
MATRIX CODE	Matrix	Matrix	Code
IRRIGATING WATER	DW		
WATER	WT		
WASTE WATER	WW		
INDUSTRIAL WASTE	SI		
SOIL SOLID	SL		
OIL	OL		
WPE	WP		
AIR	AR		
OTHER	OT		
TISSUE	TS		

Section G Required Project Information		Valid Matrix Codes	
MATRIX CODE	Matrix	Matrix	Code
IRRIGATING WATER	DW		
WATER	WT		
WASTE WATER	WW		
INDUSTRIAL WASTE	SI		
SOIL SOLID	SL		
OIL	OL		
WPE	WP		
AIR	AR		
OTHER	OT		
TISSUE	TS		

Section H Required Client Information		Valid Matrix Codes	
MATRIX CODE	Matrix	Matrix	Code
IRRIGATING WATER	DW		
WATER	WT		
WASTE WATER	WW		
INDUSTRIAL WASTE	SI		
SOIL SOLID	SL		
OIL	OL		
WPE	WP		
AIR	AR		
OTHER	OT		
TISSUE	TS		

Section I Required Project Information		Valid Matrix Codes	
MATRIX CODE	Matrix	Matrix	Code
IRRIGATING WATER	DW		
WATER	WT		
WASTE WATER	WW		
INDUSTRIAL WASTE	SI		
SOIL SOLID	SL		
OIL	OL		
WPE	WP		
AIR	AR		
OTHER	OT		
TISSUE	TS		

Section J Required Client Information		Valid Matrix Codes	
MATRIX CODE	Matrix	Matrix	Code
IRRIGATING WATER	DW		
WATER	WT		
WASTE WATER	WW		
INDUSTRIAL WASTE	SI		
SOIL SOLID	SL		
OIL	OL		
WPE	WP		
AIR	AR		
OTHER	OT		
TISSUE	TS		

Section K Required Project Information		Valid Matrix Codes	
MATRIX CODE	Matrix	Matrix	Code
IRRIGATING WATER	DW		
WATER	WT		
WASTE WATER	WW		
INDUSTRIAL WASTE	SI		
SOIL SOLID	SL		
OIL	OL		
WPE	WP		
AIR	AR		
OTHER	OT		
TISSUE	TS		

Section L Required Client Information		Valid Matrix Codes	
MATRIX CODE			

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Section B
Required Project Information:

Section C
Invoice Information:

Page: 1 of 10

Requester Information																				
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention: Brian Voelker																
Address:	17751 North Clico Rd Canton, IL 61520	Copy To:	Sam Davies, samantha.davies@vistracorp.com Daryl Johnson, Robert.Johnson@vistracorp.com	Company Name:	Vistra Corp															
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Address:	see Section A															
Phone:	(217) 753-8911	Fax:		Date Received:																
Requested Due Date/A/T:	10 day	Project Number:	2285	Manager:																
				Profile #																
Requested Analysis Filtered (Y/N)																				
<table border="1"><thead><tr><th colspan="3">REGULATORY AGENCY</th></tr><tr><th>NPDDES</th><th>GROUND WATER</th><th>DRINKING WATER</th></tr></thead><tbody><tr><td>UST</td><td>RCRA</td><td>OTHER</td></tr><tr><td>Site Location</td><td></td><td></td></tr><tr><td>STATE:</td><td>IL</td><td></td></tr></tbody></table>						REGULATORY AGENCY			NPDDES	GROUND WATER	DRINKING WATER	UST	RCRA	OTHER	Site Location			STATE:	IL	
REGULATORY AGENCY																				
NPDDES	GROUND WATER	DRINKING WATER																		
UST	RCRA	OTHER																		
Site Location																				
STATE:	IL																			

Section D Required Chain Information		Valid Matrix Codes		COLLECTED		SAMPLE TEMP AT COLLECTION		PRESERVATIVES		ANALYSIS TEST		Residual Chlorine (Y/N)	
Valid Matrix Codes MATERIAL SOURCE WATER WASTE SOLID AIR TERRA 15		CODE DW WW SL WP AS OS TS											
SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE													
ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)		DATE	TIME								
1	BA01												
2	BA02												
3	BA02L												
4	BA03												
5	BA03L												
6	BA04												
7	BA05												
8	BA06												
9	G02D												
10	G02L												
11	G02S												
12	G03L												
13	G03S												
14	G04L												
15	G06L												
16	G06S												
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		[Signature]		10/10/13	16:14	[Signature]		10/10/13	16:14	Temp in C			
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER		DATE Signed (MM/DD/YY)		Tamp in C		Received on Ice (Y/N)		Custody Sealed Cooler (Y/N)		Samples Intact (Y/N)	
[Signature]		[Signature]		10/10/13		16:14		Y		N		Y	

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* for Lac Country 11/11/23

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Confidential

✓ for Zac Wright 11/11/23

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~~X~~ for Zac Courtright 11/11/23

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Section A

Required Client Information:

Section B

Required Project Information:

Section C

Invoice Information:

Page: 10 of 10

Company: Vista Corp-Duck Creek		Report To: Brian Voelker		Attention: Brian Voelker	
Address: 17751 North Cicero Rd Canton, IL 61520		Copy To: Sam Davies: samantha.davies@vistracorp.com		Company Name: Vista Corp	
Email To: Brian.Voelker@vistracorp.com		Purchase Order No: Daryl Johnson: Robert.Johnson@vistracorp.com		Address: SOC Section A	
Phone: (217) 753-8911 Fax:		Project Name:		Date Received:	
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:	
				Site Location: IL	
				REGULATORY AGENCY: NPDES GROUND WATER DRINKING WATER UST RCRA OTHER	

ITEM #	Section D Required Client Information	Valid Matrix Codes Matrix Code	Matrix Code	Sample Type (G=GRAB C=COMP)	Collected	DATE	TIME	Sample Temp at Collection	# OF CONTAINERS	Preservatives							Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Project No./Lab ID.
										Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol				
1	Field Blank	XTPW02																		
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: 10/26/23		TIME: 1614		ACCEPTED BY / AFFILIATION:		DATE: 10/26/23		TIME: 1614	
SAMPLER NAME AND SIGNATURE													
PRINT NAME OF SAMPLER: Henry A. Penetration													
SIGNATURE OF SAMPLER: [Signature]													
DATE SIGNED (MM/DD/YYYY): 10/26/23													
Temp in C:													
Received on Ice (Y/N): Y													
Custody Sealed Cooler (Y/N): N													
Samples Intact (Y/N): Y													

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CHAIN-OF-CUSTODY / Analytical Request Document

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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.:		Quote Reference	
Fax:		Project Name:		Project Manager	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #	

Section D Required Client Information		Valid Matrix Codes		Matrix Code		Sample Type (G=GRAB C=COMP)		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Y/N		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	Section D Required Client Information	MATRIX CODE	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE
1	XTPW02																				
2	Field Blank																				
3	Equipment Blank #																				
4	ER-11 ED																				
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
DC-23Q4 Rev 0		[Signature]		10/24/23		1634		[Signature]		10/24/23		1634		Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)	
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		DATE Signed (MM/DD/YY):		SIGNATURE of SAMPLER:		Temp in °C		5.3		Y		Y	
[Signature]		[Signature]		10/24/23		[Signature]									

6204588
SB

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A

Section B

Section C

Required Client Information: Company: Vista Corp-Duck Creek Address: 17751 North Cicco Rd Canton, IL 61520 Email To: Brian.Voelker@VistaCorp.com Phone: (217) 753-8911 Requested Due Date/TAT: 10 day		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		Invoice Information: Attention: Brian Voelker Company Name: Vista Corp Address: see Section A Reference: Project Manager Project #		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location STATE: IL	
--	--	---	--	---	--	--	--

ITEM #	Section D Required Client Information Valid Matrix Codes E00E L103 OM01 OM04S OM05S OM07 OM08 OM09 OM10 OM12 OM15 OM16 OM17 OM21 OM22D OM22S OM23D Sample IDs MUST BE UNIQUE (A-Z, 0-9 / . -)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Project No./ Lab I.D.
				DATE	TIME						
1	L103										
2	OM01										
3	OM04S			10/25/23	1015		11	XX			
4	OM05S										
5	OM07										
6	OM08										
7	OM09										
8	OM10										
9	OM12										
10	OM15										
11	OM16										
12	OM17										
13	OM21			10/25/23	1538		11	XX			
14	OM22D										
15	OM22S										
16	OM23D										
ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME
DC-2304 Rev 0				[Signature]		10/25/23	1656	[Signature]		10/25/23	1656
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: [Signature] SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YY): 10/25/23											
Temp in °C: 6.0 Received on Ice (Y/N): Y Custody Sealed Cooler (Y/N): N Samples Intact (Y/N): Y											

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CHAIN-OF-CUSTODY / Analytical Request Document

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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 Cilco Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com	Company Name:	Vistra Corp
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Address:	see Section A
Phone:	(217) 753-8911	Project Name:		Date Submitted:	
Fax:		Project Number:	2285	Project Manager:	
Requested Due Date/TAT:		10 day		Profile #	

Section D Required Client Information		Valid Matrix Codes		Matrix Code		Sample Type (G=GRAB C=COMP)		COLLECTED		SAMPLE TEMP AT COLLECTION		Preservatives		Analysis Test		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	Sample ID (A-Z, 0-9 / -)	MATRIX	CODE	MATRIX CODE	TYPE	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
1	XTPW02																		
2	Field Blank																		
3	Equipment Blank					10/25/23	1553												
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		SAMPLE CONDITIONS	
DC-23Q4 Rev 0		a p p l e		10/25/23		1656		a p p l e		10/25/23		1656		Received on Custody Sealed Cooler (Y/N) Intact (Y/N)	
SAMPLER NAME AND SIGNATURE		PRINT NAME OF SAMPLER:		SIGNATURE OF SAMPLER:		DATE SIGNED (MM/DD/YYYY):		10/25/23							

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 2 of 10	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker		
Address:	17751 North Clibo Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com Daryl Johnson: Robert.Johnson@vistracorp.com	Company Name:	Vistra Corp	NPOES	GROUND WATER DRINKING WATER
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Address:	see Section A	UST	RCRA OTHER
Phone:	(217) 753-8911	Project Name:		Quote Reference:		Site Location	IL
Fax:		Project Manager:		Profile #		STATE:	ARZ
Requested Due Date/TAT:		10 day					

[illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:

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	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/TAT: 10 day	Project Number: 2285	Profile #:

Section B Required Project Information:

NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location	IL	STATE:
5J04862		
5A73		

ITEM #	Section D Required Client Information		Valid Matrix Codes		MATRIX CODE		COLLECTED		MATRIX CODE (see valid codes to left)		SAMPLE TYPE (G=GRAB C=COMP)		SAMPLE TEMP AT COLLECTION		Preservatives										Analysis Test		Requested Analysis Filtered (Y/N)										Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	MATRIX	CODE	DW	WT	WW	P	SL	OL	WP	AR	OT	TS	DATE	TIME	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT		WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP IN °C	Ice (Y/N)	Custody Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
DC-23Q4 Rev 0	<i>[Signature]</i>	10/26/23	16:45	<i>[Signature]</i>	10/27/23	7:15	20	Y	Y	Y	Y
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Legan Ross SIGNATURE of SAMPLER: <i>[Signature]</i> 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:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Clico Rd Canton, IL 61520	Copy To:	Sami Davies: samantha.davies@vistracorp.com	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 day	Project Number:	2285	Project Manager:	

REGULATORY AGENCY	
NPOES	GROUND WATER
UST	RCRA
Site Location	IL
STATE:	670486 SAB

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see vistracodes 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.
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	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Residual Chlorine (Y/N)						
DC-23Q4 Rev 0		10/26/23	1645		10/27/23	715							
SAMPLER NAME AND SIGNATURE		Temp in °C		Received on		Custody		Sealed		Cooler (Y/N)		Samples	
PRINT Name of SAMPLER:		10/26/23		10/26/23		715		2.0		N		Y	
SIGNATURE of SAMPLER:		10/26/23		10/26/23		715		2.0		N		Y	

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 6 of 10

Section A Required Client Information:

Company: Visira Corp-Duck Creek		Report To: Brian Voelker	
Address: 17751 North Cilco Rd		Copy To: Sam Davies: samantha.davies@visiracorp.com	
Canton, IL 61520		Daryl Johnson: Robert.Johnson@visiracorp.com	
Email To: Brian.Voelker@VisiraCorp.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:

Invoice Information:

Attention: **Brian Voelker**

Company Name: **Visira Corp**

Address: **see Section A**

Quote Reference: _____

Project Manager: _____

Profile #: _____

Section C Requested Analysis:

Requested Analysis Filtered (Y/N)

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

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DREXCO WATER WASTE WATER WASTE WATER PRODUCT SOIL/SOLID OIL WFE AIR OTHER TISSE	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-CLCSURE-201-202	DC-SUP-000	DC-WPCP-203-206	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	Y	N	Y	N	Y	N	Y													
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	SAMPLE CONDITIONS
DC-23Q4 Rev 0	<i>[Signature]</i>	10/26/23	1645	<i>[Signature]</i>	10/27/23	715	Temp in °C: 2.0 Received on: Y Cooler (Y/N): N Sealed: Y Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: *[Signature]*

SIGNATURE of SAMPLER: *[Signature]*

DATE Signed: *[Signature]*

IMMEDIATELY: 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 Requested Client Information:		Section B Requested 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@visracorp.com	Company Name:	Vistra Corp
Email To:	Brian.Voelker@VistraCorp.com		Daryl Johnson: Robert.Johnson@visracorp.com	Address:	see Section A
Phone:	(217) 753-8911	Purchase Order No.:		Quote Reference:	
Requested Due Date/TAT:	10 day	Project Name:		Project Manager:	
		Project Number:	2285	Profile #	

Section D Requested Client Information		Valid Matrix Codes		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	SAMPLE ID (A-Z, 0-9, /, -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED	DATE	TIME	Project No./ Lab I.D.
1	XTPW02	WT	G		10/26/23	1525	
2	Field Blank						
3	EB-6 Equipment Blank	WT	G		10/26/23	1458	
4	EB-63636 FD	WT	G		10/26/23	1435	
5	EB-6 Equipment Blank	WT	G		10/26/23	1525	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
DC-23Q4 Rev 0		[Signature]		10/26/23		1645		[Signature]		10/27/23		715		2.0 Y N Y	
		[Signature]						[Signature]							

SAMPLER NAME AND SIGNATURE	DATE SIGNED (MM/DD/YY)
[Signature]	10/26/23
PRINT Name 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:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Visira Corp-Durk Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Clico Rd Canton, IL 61520	Copy To:	Sum Davies: 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
UST	RCRA
Site Location	OTHER
STATE:	IL

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCTS P SOIL/SOLID SL OIL WIFE WP AIR OTHER OT TISSUE TS	MATRIX CODE (add 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-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-CLASURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
DC-23Q4 Rev 0		<i>[Signature]</i>	10/27/23	1644	<i>[Signature]</i>	10/27/23	1649	Temp in °C	8.0
		SAMPLER NAME AND SIGNATURE		DATE Signed (MM/DD/YYYY)		Custody Sealed (Y/N)		Received on (Y/N)	
		<i>[Signature]</i>		10/27/23		Y		Y	
		PRINT Name of SAMPLER:		DATE Signed (MM/DD/YYYY):		Custody Sealed (Y/N)		Received on (Y/N)	
		SIGNATURE of SAMPLER:		10/27/23		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-Duck Creek		Report To:	Brian Voelker		Attention:	Brian Voelker	
Address:	17751 North Ciko 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	Fax:			Project Name:		Project Manager:		
Requested Due Date/TAT:	10 day			Project Number: 2285		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		# OF CONTAINERS		Preservatives		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	SAMPLE ID (A-Z, 0-9 / -)	DRINKING WATER WATER WASTE WATER PRODUCT SOLID SL CL WIP AIR OTHER TISUE	CODE DW WT WW P SL CL WIP AIR OT TS	DATE	TIME														
1	L103			10/27/23	1340														
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		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
DC-23Q4 Rev 0		<i>[Signature]</i>		10/27/23		1644		<i>[Signature]</i>		10/27/23		649		Temp in °C 8.0	
														Received on (Y/N) 7	
														Custody Sealed (Y/N) 7	
														Cooler (Y/N) 7	
														Samples Intact (Y/N) 7	

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YYYY)	
<i>[Signature]</i>	PRINT Name of SAMPLER:	10/27/23	
<i>[Signature]</i>	SIGNATURE of SAMPLER:	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:	
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.:		Quote Reference	
	Fax:	Project Name:		Project Manager	
Requested Due Date/ATAT:	10 day	Project Number:	2285	Profile #	

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

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WT WATER P PRODUCT P SOILSOLID SL OIL OL WIRE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see wild 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-257-203	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)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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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		10/27/23	1646		10/27/23	1647	8.0	Y	Y	Y	Y
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <i>Sam Davies</i> SIGNATURE of SAMPLER: <i>Sam Davies</i>											
DATE Signed (MM/DD/YY): 10/27/23											

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

Section B
Required Project Information:

Section C

Page: 10 of 10

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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	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# 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				Analysis Test ↓	DC-257-203	DC-257-204	DC-257-205	DC-845-204	DC-845-203	DC-845-205	DC-CLOSURE-201-202	
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

Relinquished By / Affiliation

Date

Accepted By / Affiliation

Date

Time

Sample Conditions

DC-23Q4 Rev 0

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 Cilco 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	Fax:	Project Name:		Project Manager:	
Requested Due Date/TAT: 10 day		Project Number:	2285	Profile #	

Section D Required Client Information		Valid Matrix Codes		Matrix Code (see valid codes to left)		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Requested Analysis Filtered (Y/N)		Project No./ Lab I.D.	
ITEM #	Sample ID (A-Z, 0-9 / -)	Matrix Code	Valid Matrix Codes	Matrix Code	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE
1	P57S		DRINKING WATER DW														
2	P60		WASTE WATER WW														
3	P61		PRODUCT P														
4	P62		SOILSOLID S														
5	P63		WPF WPF														
6	P64		AIR AR														
7	R10L		OTHER OT														
8	R11L		TISSUE TS														
9	R13L																
10	R61L				10/31/23	1140											
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		[Signature]		10/31/23		1525		[Signature]		10/31/23		1525		Received on Ice (Y/N) 7 Custody Sealed (Y/N) 7 Samples Intact (Y/N) 7	

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MINIDITY): 10/31/23	
PRINT Name of SAMPLER: Aaron Pumberton			
SIGNATURE of SAMPLER: [Signature]			

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

Section C
Invoice Inform

Section B
Required Project Information:

Section A
Required Client Information:

Company	Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker									
Address	17751 North Cicco Rd Carlton, IL 61520	Copy To: Sam Davies: samantha.davies@vistracorp.com Darryl Johnson: Robert.Johnson@vistracorp.com	Company Name: Vistra Corp Address: see Section A									
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference									
Phone: (217) 753-8911	Fax:	Project Name:	Project Manager									
Requested Due Date/TAT:	10 day	Project Number: 2285	Profile #									
		<table border="1"> <tr> <td colspan="2">REGULATORY AGENCY</td> </tr> <tr> <td>NPDES</td><td>GROUND WATER</td> </tr> <tr> <td>UST</td><td>RCRA</td> </tr> <tr> <td colspan="2">OTHER</td> </tr> </table>			REGULATORY AGENCY		NPDES	GROUND WATER	UST	RCRA	OTHER	
REGULATORY AGENCY												
NPDES	GROUND WATER											
UST	RCRA											
OTHER												
		<table border="1"> <tr> <td>Sits Location</td><td>IL</td> </tr> <tr> <td>STATE:</td><td></td> </tr> </table>			Sits Location	IL	STATE:					
Sits Location	IL											
STATE:												

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX DROUGHT WATER WATER WATER WATER PRODUCT SOIL SOLID OIL WPE AIR OTHER Tissue	MATRIX CODE (see yield 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 SO ₃ Methanol Other	Analysis Test	Requested Analysis Filtered (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		XTPW02	WT 6	10/31/23	1427	6	X														
2		Field Blank																			
3		Effluent Blank 12																			
4		EB-11 10/31/23 Lab																			
5																					
6																					
7																					
8																					
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12																					
13																					
14																					
15																					
16																					

ADDITIONAL COMMENTS

DC-23Q4 Rev 0

RELINQUISHED BY / AFFILIATION

DATE

TIME

ACCEPTED BY / AFFILIATION

DATE

TIME

SAMPLE CONDITIONS

7

152

10/31/23

152

10/31/23

SAMPLER NAME AND SIGNATURE		Temp in °C		Received on	Custody Sealed	Samples Intact (Y/N)
PRINT Name of SAMPLER:		DATE Signed		Ice (Y/N)		
SIGNATURE of SAMPLER:		(MM/DD/YYYY)				
Daron Kemberlin		10/13/12				