

Gainesville Regional Utilities

Deerhaven Generating Station



Coal Combustion Residuals Units

2023 Annual Groundwater Monitoring and Corrective Action

Report

Prepared for:

Gainesville Regional Utilities
Gainesville, Florida

Prepared by:

Innovative Technical Solutions
Gainesville, Florida

January 2024



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Direction, January 2023, and July 2023

List of Abbreviations

AMP	Assessment Monitoring Program
ASD	Alternative Sources Demonstration
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
ECT	Environmental Compliance Technologies
GWMP	Groundwater Monitoring Plan
GWPS	Groundwater Protection Standard
GRU	Gainesville Regional Utilities
ITS	Innovative Technical Solutions
IWCS	Innovative Waste Consulting Services
LCL	Lower Confidence Limit
PQL	Practical Quantitation Limit
SIS	Surface Impoundment System
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
UES	Universal Engineering Sciences
USGS	United States Geological Survey
US EPA	United States Environmental Protection Agency

1.0 Current Status Overview

In accordance with 40 CFR 257.90(e)(6)(i) – (vi), the following is a summary of the current status of the units:

- At the beginning of 2023, both the surface impoundment system (SIS) and the landfill were under assessment monitoring.
- Both units remain in assessment monitoring as of the end of 2023.
- The following statistically significant increases (SSI) over background were noted for Appendix III parameters in 2023:
 - For the SIS: chloride (SIS-2), fluoride (SIS-2), and total dissolved solids (TDS) (SIS-4)
 - For the landfill: chloride (LF-2, LF-3, and LF-5), pH (LF-2, LF-4, and LF-5), sulfate (LF-2, LF-3, LF-4, LF-5, and LF-6), TDS (LF-3 and LF-5), and fluoride (LF-2, LF-4, and LF-5)
- Both the SIS and landfill entered into assessment monitoring January 10, 2018.
- GRU received a Notice of Final Agency Action from the Florida Department of Environmental Protection on April 7, 2023 (Permit Number 0266484-001-CP-01) for the SIS closure by removal of in-place Coal Combustion Residuals (CCR) and decontamination of the two ash cells. Placement of CCR ceased in the SIS in 2021 and closure by removal was initiated in 2021. Removal of CCR in Ash Cell #1 was completed in this reporting period, 2023, and removal of CCR from Ash Cell #2 is ongoing and expected to be completed in the next reporting year, 2024. Ash removal and decontamination is anticipated to be completed in 2024.
- The site has a history of localized naturally occurring radiological activity on site. Per the 2022 annual groundwater monitoring report, LF-5 showed radium 226 and 228 at a statistically significant level (SSL) above the GWPS. This area was evaluated and further sampled as part of an alternative source demonstration (ASD) completed in March 2022 and included in the 2022 annual groundwater monitoring report (ITS, 2023). The results of this ASD confirm the earlier conclusions of the DGS radiological Plan of Study (ECT 2015): there is naturally occurring, highly spatially variable radiological activity at the site.
- No remedial actions were initiated or completed during 2023.

2.0 Site Background

The Deerhaven Generating Station (site) has two CCR units: a surface impoundment system (SIS) and a landfill. The SIS is comprised of two ash ponds (i.e., Ash Cell #1, Ash Cell #2) located within the same slurry wall containment system. These ponds receive cooling tower blowdown and bottom ash sluice water from the site's natural gas/coal-

fired combustion unit (i.e., Unit 2) through a piping network that allows discharge to either pond. The Deerhaven Generating Station has been operated primarily as a natural gas fired unit that retains the ability to use coal in the event of a natural gas interruption. As of July, 2021, the SIS no longer receives CCR material, and is currently undergoing closure by removal. CCR removal and unit decontamination has been completed from Ash Cell #1, and is currently underway for Ash Cell #2.

When Unit 2 combusts coal, the CCR landfill primarily accepts flue gas desulfurization byproduct from the Unit 2 scrubbing process. Historically, the landfill has also accepted bottom ash that has periodically (i.e., approximately once every five years) been excavated from the SIS. The landfill also receives lime sludge that is periodically dredged from front-end treatment sludge ponds. Though fly ash has been occasionally deposited in the landfill, it is typically hauled offsite for beneficial use.

The management of CCR is regulated by Title 40 of the Code of Federal Regulations, Part 257, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments. These regulations include specific requirements for groundwater monitoring of CCR units. Specific details on the required content of this annual groundwater monitoring and corrective action report are enumerated in §257.90(e). As of January 10, 2018, both CCR units entered into an Assessment Monitoring Program (AMP) due to the detection of Appendix III parameters at an SSI above background. These parameters are monitored as indicators of potential groundwater impacts but (with the exception of fluoride) are not subject to GWPS.

3.0 Well Installation and Decommissioning

Two networks of four groundwater monitoring wells (i.e., one upgradient and three downgradient wells for each CCR unit) were installed on March 7, 2017 (UES 2017) to monitor the SIS and landfill. Currently, one upgradient well (LF-1) and five downgradient wells (LF-2, LF-3, LF-4, LF-5, and LF-6) are used for monitoring groundwater quality around the CCR Landfill, and two upgradient wells (SIS-1 and R6T4) and four downgradient wells (R4T5, SIS-2, SIS-3, SIS-4) are used for monitoring groundwater quality around the SIS (UES 2020).

These wells provide an independent groundwater monitoring well network for each CCR unit. The three downgradient wells for the CCR landfill (LF-2, LF-3, and LF-4) were removed and reinstalled in 2019 as part of a perimeter stormwater ditch modification project (UES 2019). Two additional wells (LF-5 and LF-6) and two piezometers were installed on the west side of the landfill in June 2020 for more accurate characterization of groundwater flow direction and quality on that side of the unit. The groundwater

monitoring network (UES 2020) and the groundwater monitoring plan (GWMP) (ITS 2021) were updated to include these wells.

Table 3-1 below provides a summary of each well including ID, coordinates, and whether the well is classified as upgradient or downgradient from its respective CCR unit. The coordinates are referenced to the North American Datum of 1983, Florida State Plane North 0903.

Table 3-1. CCR Unit-Specific Well Coordinates and Upgradient/Downgradient Designation

CCR SIS			
Well ID	Northing	Easting	Upgradient/Downgradient
SIS-1	285,024	2,637,081	Upgradient
R6T4	285,074	2,636,502	Upgradient
R4T5	284,200	2,637,137	Downgradient
SIS-2	284,334	2,637,307	Downgradient
SIS-3	284,141	2,636,920	Downgradient
SIS-4	284,335	2,636,709	Downgradient

CCR Landfill			
Well ID	Northing	Easting	Upgradient/Downgradient
LF-1	284,852	2,635,464	Upgradient
LF-2	284,008	2,635,888	Downgradient
LF-3	283,992	2,635,457	Downgradient
LF-4	283,987	2,634,914	Downgradient
LF-5	284,315	2,634,787	Downgradient
LF-6	284,619	2,634,789	Downgradient

4.0 Key Actions Completed

The following key actions associated with groundwater monitoring of the CCR units have been completed in 2023 under the AMP established in January 2018:

- Continued sampling of Appendix III and Appendix IV parameters under the AMP. A table summarizing the number of samples collected from each well, the date of sample collection and the period used to establish Appendix III prediction limits are included in Table 4-1 below. Historical groundwater monitoring data are incorporated into the dataset for wells R6T4 and R4T5.
- Statistical analysis of the downgradient measurements of Appendix III, and IV parameters for each CCR unit for the AMP sampling events. A summary of these analyses are presented in the next section (5.0 Summary of Statistical Analysis Results).

- Closure is underway for the SIS. GRU has completed ash removal and decontamination efforts for Ash Cell #1. GRU has initiated decontamination efforts in Ash Cell #2 and should conclude by mid-2024.

Table 4-1. CCR Unit-Specific Well Sampling Dates and Total Samples Collected

Date	SIS						Landfill					
	SIS-1	R6T4	R4T5	SIS-2	SIS-3	SIS-4	LF-1	LF-2	LF-3	LF-4	LF-5	LF-6
10/5/2015	X	X										
1/25/2016	X	X										
4/8/2016	X	X										
7/28/2016	X	X										
10/20/2016	X	X										
1/9/2017	X	X										
4/5/2017	X	X										
4/17/2017	X			X	X	X	X	X	X	X	X	
5/15/2017	X			X	X	X	X	X	X	X	X	
5/30/2017	X			X	X	X	X	X	X	X	X	
6/19/2017	X			X	X	X	X	X	X	X	X	
7/9/2017	X			X	X	X	X	X	X	X	X	
7/10/2017		X										
7/31/2017	X			X	X	X	X	X	X	X	X	
8/22/2017	X			X	X	X	X	X	X	X	X	
9/18/2017	X			X	X	X	X	X	X	X	X	
1/23/2018	X			X	X	X	X	X	X	X	X	
1/24/2018		X										
2/15/2018	X			X	X	X	X	X	X	X	X	
2/16/2018		X										
3/8/2018	X			X	X	X	X	X	X	X	X	
4/3/2018	X			X	X	X	X	X	X	X	X	
4/4/2018		X										
7/17/2018	X			X	X	X	X	X	X	X	X	
7/18/2018		X										
1/16/2019	X			X	X	X	X	X	X	X	X	
1/17/2019		X										
5/9/2019							X	X	X	X	X	
5/10/2019	X	X						X				
7/16/2019	X			X	X	X	X	X	X	X	X	
7/17/2019		X										
10/25/2019								X	X	X		
1/14/2020	X	X										
1/15/2020			X					X	X	X		
1/16/2020				X	X	X						
1/17/2020										X		
7/21/2020	X	X										
7/22/2020				X	X							
7/23/2020			X	X				X	X	X	X	
9/3/2020											X	

Date	SIS						Landfill					
	SIS-1	R6T4	R4T5	SIS-2	SIS-3	SIS-4	LF-1	LF-2	LF-3	LF-4	LF-5	LF-6
10/15/2020									X	X		
11/18/2020									X	X		
12/9/2020									X	X		
1/12/2021	X	X										
1/14/2021	X						X	X	X	X	X	X
1/15/2021			X	X	X							
4/12/2021		X										
4/13/2021	X											
4/15/2021									X	X		
7/18/2021	X	X										
7/26/2021	X			X	X	X						
7/27/2021							X	X	X	X	X	X
8/19/2021									X	X		
9/3/2021									X			
1/24/2022	X	X										
1/26/2022	X			X	X	X	X					
1/27/2022										X		
1/28/2022								X	X	X		X
7/10/2022	X	X										
7/12/2022							X					
7/13/2022	X			X	X	X			X			
7/14/2022									X	X	X	X
1/8/2023	X	X										
1/10/2023	X						X	X	X	X	X	X
1/11/2023				X	X	X						
2/16/2023							X ¹					
7/12/2023	X	X										
7/13/2023	X			X	X		X					
7/14/2023							X		X			
7/17/2023								X	X	X	X	
Total Samples Collected	23	24	25	23	23	23	25	25	25	25	12	12

1. The sample collected from LF-1 for combined radium in the January semiannual sampling event was damaged in shipping. Resampling of LF-1 for combined radium was conducted on February 16th, 2023.

5.0 Summary of Statistical Analysis Results

5.1 Appendix III Parameters

The existing prediction limits were used to evaluate whether Appendix III parameters in downgradient wells sampled for each CCR unit were measured at a SSI above the respective background concentration. No prediction limits were updated this year. Table 5-1 and 5-2 summarize this analysis for Appendix III parameters. Note that boron was

detected in the equipment blank for both semiannual sampling events in this reporting year. For this reason, boron could not be assessed in this reporting year.

Per the existing assessment monitoring program, several SIS and landfill wells have shown a SSI over background as shown in Table 5-1 and 5-2. The SIS and landfill will remain in assessment monitoring until all Appendix III and IV parameters concentrations are shown to be below the respective background level for two consecutive sampling events (§257.95(e)), or until completion of closure activities for the SIS, as discussed in Section 5.2 below.

Table 5-1. Appendix III Parameters with SSIs for the SIS Monitoring Wells

Parameter	Retest Strategy	Prediction Limit (mg/L)	Wells with an SSI	
			SIS-2	SIS-4
Chloride	1-of-2	20.5	X	
Fluoride	1-of-2	0.36	X	
TDS	1-of-2	465		X

Table 5-2. Appendix III Parameters with SSIs for the Landfill Monitoring Wells

Parameter	Retest Strategy	Prediction Limit (mg/L)	Wells with an SSI				
			LF-2	LF-3	LF-4	LF-5	LF-6
Chloride	1-of-3	22.2	X	X		X	
pH	1-of-2	5.18 - 6.47 ¹	X		X	X	
Sulfate	1-of-3	21.5	X	X	X	X	X
Fluoride	1-of-3	0.09	X		X	X	
TDS	1-of-3	403		X		X	

¹. Standard pH units

5.2 Appendix IV Parameters Sample Data Analysis

Table 5-3 and Table 5-4 summarize the statistical analysis of Appendix IV parameters measured above the detection limit for the SIS and landfill, respectively. The tables also present the GWPS and the GWPS type. For parameters with at least one reading observed above the GWPS, the statistical method (and if applicable, retest frequency) used to evaluate whether there is a SSL above the GWPS (i.e., exceedance) is shown. No method

is listed for parameters that were never measured above the GWPS for any sampling event.

Combined radium (226 and 228) has continued to be observed at LF-5 at a SSL above the GWPS as noted in Table 5-4. This is attributed to localized, naturally-occurring radiological activity in the soil which has been identified in the general region (USGS 1989) and specifically on-site (ECT 2015). This alternative source was further investigated in March of 2022 as an ASD for radium groundwater impacts at LF-5 near the CCR Landfill. This ASD was included in the subsequent annual groundwater monitoring report (ITS, 2023). The ASD concluded that the elevated radium levels are due to naturally occurring radium located in the clay layer in the vicinity of LF-5.

Lab reports and field logs for samples collected from all CCR wells in 2023 are included in Attachments A and B. As required by §257.90(e)(3), the laboratory results for all groundwater sampling events analyzed over the time period covered by this report are included as Attachment A. Field logs including pH readings (an Appendix III parameter) and the depth-to-liquid measurements for all CCR well sampling events are included in this report as Attachment B.

There are not current SSLs of Appendix IV parameters above the GWPS for the SIS, and no history of SSLs above the GWPS for any SIS wells. Closure by removal and decontamination is anticipated to be complete in early 2024. Decontamination is anticipated to be demonstrated for the SIS by the results of two monitoring events with no SSLs above the GWPS. These final two monitoring events are expected to be the July 2023 sampling event discussed in this report and the January 2024 monitoring event. Assuming the January 2024 monitoring event continues to show no SSLs above the GWPS, groundwater monitoring of the SIS will be terminated coincident with closure of the SIS.

Table 5-3. Statistical Analysis Details and Results for Appendix IV Parameters at SIS Wells

Parameter	Detected in Downgradient Wells?	GWPS		GWPS Type	Statistical Method to Assess Well Data With One or More Measurements Above the GWPS	Exceedance
		Value	Units			
Antimony	Yes	6	ug/L	MCL	-	No
Lithium	Yes	40	ug/L	MCL	-	No
Thallium	Yes	3	ug/L	MCL	Non-Parametric LCL for Median	No
Fluoride	Yes	4	mg/L	MCL	-	No
Arsenic	Yes	10	ug/L	MCL	Non-Parametric LCL for Median and Kaplan Meier LCL for Mean	No
Barium	Yes	2000	ug/L	MCL	-	No
Beryllium	No	4	ug/L	MCL	-	No
Cadmium	Yes	5	ug/L	MCL	-	No
Chromium	Yes	100	ug/L	MCL	-	No
Cobalt	Yes	6	ug/L	MCL	Non-Parametric LCL for Median	No
Lead	Yes	15	ug/L	MCL	-	No
Molybdenum	Yes	100	ug/L	MCL	-	No
Selenium	Yes	50	ug/L	MCL	-	No
Mercury	No	2	ug/L	MCL	-	No
Radium 226 and 228	Yes	5	pCi/L	MCL	Kaplan Meier 95% LCL for Mean	No

Table 5-4. Statistical Analysis Details and Results for Appendix IV Parameters at Landfill Wells

Parameter	Detected in Downgradient Wells?	GWPS		GWPS Type	Statistical Method to Assess Non Excluded Well Data With One or More Measurements Above the GWPS	Exceedance
		Value	Units			
Antimony	Yes	6	ug/L	MCL	-	No
Lithium	Yes	40	ug/L	MCL	-	No
Thallium	Yes	3	ug/L	MCL	-	No
Fluoride	Yes	4	mg/L	MCL	-	No
Arsenic	Yes	10	ug/L	MCL	-	No
Barium	Yes	2000	ug/L	MCL	-	No
Beryllium	Yes	4	ug/L	MCL	-	No
Cadmium	Yes	5	ug/L	MCL	-	No
Chromium	Yes	100	ug/L	MCL	-	No
Cobalt	Yes	6	ug/L	MCL	Parametric 95% LCL for Mean	No
Lead	Yes	15	ug/L	MCL	-	No
Molybdenum	Yes	100	ug/L	MCL	-	No
Selenium	Yes	50	ug/L	MCL	-	No
Mercury	No	2	ug/L	MCL	-	No
Radium 226 and 228	Yes	5	pCi/L	MCL	Parametric 95% LCL for Mean	Yes, for LF-5, see ASD (ITS 2023)

6.0 Groundwater Monitoring Program Status of CCR Units

Because Appendix III and/or IV parameters were detected at levels showing a SSI over background concentrations for both CCR units, both units remain under the assessment monitoring program (AMP), which was initially established on January 10, 2018 (i.e., within the 90 days provided by §257.94(e)(1)). Therefore, as of the date of this report, both CCR units are being monitored under an AMP.

Sample results from LF-5, added in 2020, continue to show elevated levels of combined radium. Combined radium results from LF-5 were reported as an SSL over the GWPS in 2021. An ASD was completed in March 2022 which concluded that the radium is a result of naturally-occurring, spatially-heterogeneous native clay layer located in the vicinity of LF-5 (ITS, 2023). Given the spatially and temporally heterogeneous trends of naturally occurring radium discussed in the ASD, the spatial homogeneity assumption of interwell testing cannot be held, and interwell testing is not able to detect a SSL of combined radium at this well. Given that there is no background data for LF-5 before waste placement, intrawell testing cannot detect an SSL above GWPS of combined radium at LF-5. Combined radium will not be reported as an SSL above the GWPS for LF-5 moving forward.

7.0 Upcoming Activities

Prediction limits with retesting are expected to be updated next year for parameters for which 8 new samples are available, as described in the GWMP (ITS 2021).

Groundwater sampling for the landfill will continue under the AMP, including January and July 2024 (i.e., semi-annual) sampling of all previously-detected Appendix III/IV parameters and July 2024 (i.e., annual) sampling of all Appendix III/IV parameters. Monitoring of Appendix III/IV parameters under the AMP for the landfill will continue until the occurrence of two consecutive sampling events with no SSI above background concentrations, in which case the unit will be returned to detection monitoring.

Mercury and beryllium were not detected in the SIS wells, and mercury was not detected in the landfill wells. Therefore, these parameters will continue to be monitored annually at the respective units where these were not detected. If detected in the future, these parameters will be monitored semi-annually.

Closure activities for the SIS are expected to be completed in 2024 as described in the current SIS Closure Plan. Appendix III and IV parameters will continue to be monitored per the AMP for the CCR landfill. There are no current SSLs of Appendix IV parameters above the GWPS for the SIS, and no history of SSLs above the GWPS for any SIS wells. Closure by removal and decontamination is anticipated to be complete in early 2024.

Decontamination is anticipated to be demonstrated for the SLS by the results of two monitoring events with no SSLs above the GWPS. These final two monitoring events are expected to be the July 2023 sampling event discussed in this report and the upcoming January 2024 monitoring event. Assuming the January 2024 monitoring event continues to show no SSLs above the GWPS, monitoring of the SIS will be terminated coincident with closure of the SIS.

8.0 Rate and Direction of Groundwater Flow

The CCR landfill and SIS (and adjacent process ponds) are each surrounded by a slurry wall containment system keyed into an existing natural clay layer – the CCR units were designed to be hydraulically isolated from the surrounding surficial aquifer. Therefore, it is not possible to use the groundwater monitoring wells located outside the slurry wall of each CCR unit to estimate the groundwater flow rate and direction of the uppermost aquifer beneath each CCR unit.

An existing site (non-CCR) groundwater monitoring well network (including 12 wells) is currently being monitored on a quarterly basis. Depth-to-liquid readings from the semi-annual and annual groundwater monitoring events (i.e., January 2023 and July 2024, respectively) were used to develop an estimate of the rate and direction of groundwater flow in the uppermost aquifer at the site. Potentiometric contour maps developed from this data using QGIS software are presented in Attachment C. The average gradient of the between background and downgradient wells at the site was found to be 0.002 ft/ft for both the January and July sampling events.

As described in the Groundwater Sampling and Analysis Program for the CCR Units (ITS 2021), the rate of groundwater flow can be calculated using the following equation:

$$V = \frac{K * i}{N_e}$$

Where:

- V is equal to the groundwater velocity,
- K is the hydraulic conductivity of aquifer,
- i the hydraulic gradient,
- N_e is the effective porosity of the aquifer

The effective porosity and hydraulic conductivity of the native surficial silty-sandy soils of the site were estimated by UES (2017). The effective porosity is estimated as the midpoint of the fillable porosity range provided: 17.5%. The hydraulic conductivity is estimated as the midpoint of values provided for the horizontal hydraulic conductivity: 3.0 feet per day. Therefore, the estimated average groundwater velocity at the site is approximately 0.04 feet per day.

9.0 References

- ECT (2015). Arsenic and Gross Alpha Exceedances: Plan of Study. Deerhaven Generating Station, Gainesville, Florida.
- IWCS (2018). 2018 Annual Groundwater Monitoring and Corrective Action Report. Prepared for Gainesville Regional Utilities, Deerhaven Generating Station by Innovative Waste Consulting Services, January 2018.
- ITS (2021). Groundwater Sampling and Analysis Program for the Coal Combustion Residuals Units. Gainesville Regional Utilities Deerhaven Generating Station. Innovative Technical Solutions, LLC (ITS).
- ITS (2023). 2022 Annual Groundwater Monitoring and Corrective Action Report. Prepared for Gainesville Regional Utilities, Deerhaven Generating Station by Innovative Waste Consulting Services, January 2018.
- UES (2017). Geotechnical Consulting Services – Coal Combustion Residuals (CCR) Surface Impoundment System and Landfill Groundwater Monitoring Systems Design and Construction. Prepared by Universal Engineering Sciences for Innovative Waste Consulting Services, LLC. April 6, 2017.
- UES (2019). Coal Combustion Residuals (CCR) Surface Impoundment System and Updated Landfill Groundwater Monitoring Systems Design and Construction. Prepared by Universal Engineering Sciences for Innovative Waste Consulting Services, LLC. July 10, 2019, Draft Report.
- UES (2020). Geotechnical Consulting Services – Coal Combustion Residuals (CCR) Surface Impoundment System and Updated Landfill Groundwater Monitoring Systems Design and Construction, Deerhaven Generating Station (DGS), 10001 NW 13th Street, Gainesville, Alachua County, Florida. Prepared for Innovative Waste Consulting Services, LLC by Universal Engineering Sciences, November 2020.
- USGS (1989). Geochemistry of the Floridan Aquifer System in Florida and in Parts of Georgia, South Carolina, and Alabama. U.S. Geological Survey Professional Paper 1403-1.

10.0 Professional Engineer Certification

This plan was prepared under the supervision, direction and control of the undersigned, registered professional engineer (PE). The undersigned PE is familiar with and has prepared this annual groundwater monitoring and correction action report in accordance with the requirements of 40 CFR 257.90(e).

Name of Professional Engineer: James R. Wally

Company: Innovative Technical Solutions, LLC

PE Registration State: Florida

PE License No.: 85405

This item has been digitally signed and sealed by James Wally, PE, on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Attachment A

Sampling Laboratory Analysis Reports

February 08, 2023

Mr. Jeffery Boudreau
Deerhaven Lab
P.O. Box 147117, Station D38
Gainesville, FL 32614

RE: Project: ENV1Q23
Pace Project No.: 35773346

Dear Mr. Boudreau:

Enclosed are the analytical results for sample(s) received by the laboratory on January 18, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Ormond Beach
- Pace Analytical Services - Greensburg

The container for Radium 226+228 for 35773346019 was damaged during shipping to the sub lab and could not be reported.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jeff Baylor
jeff.baylor@pacelabs.com
(386)672-5668
Project Manager

Enclosures

cc: Kent Brakefield
Kimberly Morrison, Deerhaven Labs
Shelley Phillips, Deerhaven Lab



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: ENV1Q23
Pace Project No.: 35773346

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL01264
Maryland Certification: #346
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Ohio DEP 87780
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ENV1Q23
Pace Project No.: 35773346

Pace Analytical Services Ormond Beach

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ENV1Q23
Pace Project No.: 35773346

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35773346001	1Q23-R1T6	Water	01/09/23 12:18	01/18/23 10:00
35773346002	1Q23-R2T1	Water	01/08/23 15:39	01/18/23 10:00
35773346003	1Q23-R3T7	Water	01/09/23 00:01	01/18/23 10:00
35773346004	1Q23-R4T5	Water	01/08/23 10:24	01/18/23 10:00
35773346005	1Q23-R6T1	Water	01/08/23 09:24	01/18/23 10:00
35773346006	1Q23-R6T4	Water	01/08/23 16:22	01/18/23 10:00
35773346007	1Q23-R6T8	Water	01/09/23 09:19	01/18/23 10:00
35773346008	1Q23-R6T12	Water	01/12/23 08:30	01/18/23 10:00
35773346009	1Q23-R8T10	Water	01/12/23 10:10	01/18/23 10:00
35773346010	1Q23-R9T5	Water	01/09/23 15:00	01/18/23 10:00
35773346011	1Q23-R10T8	Water	01/11/23 13:14	01/18/23 10:00
35773346012	1Q23-R11T4	Water	01/10/23 12:18	01/18/23 10:00
35773346013	1Q23-DEEP	Water	01/10/23 14:16	01/18/23 10:00
35773346014	1Q23-EBLANK1	Water	01/10/23 08:17	01/18/23 10:00
35773346015	1Q23-SIS-1	Water	01/10/23 09:19	01/18/23 10:00
35773346016	1Q23-SIS-2	Water	01/11/23 11:29	01/18/23 10:00
35773346017	1Q23-SIS-3	Water	01/11/23 09:16	01/18/23 10:00
35773346018	1Q23-SIS-4	Water	01/11/23 10:27	01/18/23 10:00
35773346019	1Q23-LF-1	Water	01/10/23 09:59	01/18/23 10:00
35773346020	1Q23-LF-2	Water	01/10/23 10:31	01/18/23 10:00
35773346021	1Q23-LF-3	Water	01/10/23 11:12	01/18/23 10:00
35773346022	1Q23-LF-4	Water	01/10/23 12:34	01/18/23 10:00
35773346023	1Q23-LF-5	Water	01/10/23 13:38	01/18/23 10:00
35773346024	1Q23-Barnstead	Water	01/08/23 07:44	01/18/23 10:00
35773346025	1Q23-LF-6	Water	01/10/23 14:38	01/18/23 10:00
35773346026	1Q23-EBLANK2	Water	01/11/23 10:37	01/18/23 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ENV1Q23
Pace Project No.: 35773346

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35773346001	1Q23-R1T6	EPA 200.7	AME	2	PASI-O
		SM 7110C-11	KET	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
35773346002	1Q23-R2T1	EPA 200.7	TMA	2	PASI-O
		SM 7110C-11	KET	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
35773346003	1Q23-R3T7	EPA 200.7	AME	2	PASI-O
		SM 7110C-11	KET	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
35773346004	1Q23-R4T5	EPA 200.7	AME	2	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		SM 7110C-11	KET	1	PASI-PA
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
Total Radium Calculation			JAL	1	PASI-PA
35773346005	1Q23-R6T1	EPA 300.0	CMB	3	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
		EPA 200.7	TMA	2	PASI-O
		SM 7110C-11	KET	1	PASI-PA
35773346006	1Q23-R6T4	EPA 300.0	CMB	2	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
		EPA 200.7	AME	2	PASI-O
		SM 7110C-11	DBB1	4	PASI-A
Total Radium Calculation			KET	1	PASI-PA
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 353.2	MRC	1	PASI-O

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ENV1Q23
Pace Project No.: 35773346

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35773346007	1Q23-R6T8	SM 5310B	EAD	1	PASI-O
		EPA 200.7	AME	2	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		SM 7110C-11	KET	1	PASI-PA
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
35773346008	1Q23-R6T12	EPA 200.7	TMA	2	PASI-O
		SM 7110C-11	KET	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
35773346009	1Q23-R8T10	EPA 200.7	TMA	2	PASI-O
		SM 7110C-11	KET	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
35773346010	1Q23-R9T5	EPA 200.7	TMA	2	PASI-O
		SM 7110C-11	KET	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
35773346011	1Q23-R10T8	EPA 200.7	AME	2	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		SM 7110C-11	KET	1	PASI-PA
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
		EPA 200.7	TMA	2	PASI-O
35773346012	1Q23-R11T4	EPA 6020B	CRW, DBB1	4	PASI-A
		SM 7110C-11	KET	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ENV1Q23
Pace Project No.: 35773346

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35773346013	1Q23-DEEP	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 353.2	MRC	1	PASI-O
		SM 5310B	EAD	1	PASI-O
		EPA 200.7	AME	2	PASI-O
		SM 7110C-11	KET	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	MRC	1	PASI-O
35773346014	1Q23-EBLANK1	SM 5310B	EAD	1	PASI-O
		EPA 200.7	KPP	2	PASI-O
		SM 7110C-11	KET	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	MRC	1	PASI-O
35773346015	1Q23-SIS-1	SM 5310B	EAD	1	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
35773346016	1Q23-SIS-2	EPA 300.0	CMB	3	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
35773346017	1Q23-SIS-3	EPA 300.0	CMB	3	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
35773346018	1Q23-SIS-4	EPA 300.0	CMB	3	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
35773346019	1Q23-LF-1	EPA 300.0	CMB	3	PASI-O
		EPA 6020B	DBB1	4	PASI-A

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ENV1Q23
Pace Project No.: 35773346

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35773346020	1Q23-LF-2	EPA 300.0	CMB	3	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
35773346021	1Q23-LF-3	EPA 6020B	CRW, DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	CRW, DBB1	4	PASI-A
35773346022	1Q23-LF-4	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	CRW, DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
35773346023	1Q23-LF-5	EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	CRW, DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
35773346024	1Q23-Barnstead	Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 200.7	KPP	2	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	DBB1	4	PASI-A
35773346025	1Q23-LF-6	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
35773346026	1Q23-EBLANK2	EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	DBB1	4	PASI-A
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA

PASI-A = Pace Analytical Services - Asheville

PASI-O = Pace Analytical Services - Ormond Beach

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-R4T5 Lab ID: 35773346004 Collected: 01/08/23 10:24 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Ormond Beach								
Potassium	360 I	ug/L	1000	270	1	01/19/23 02:10	01/24/23 00:42	7440-09-7	
Sodium	6510	ug/L	2000	540	1	01/19/23 02:10	01/24/23 00:42	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 04:32	7440-36-0	
Boron	15.3 I	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 12:46	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 04:32	7439-93-2	
Thallium	0.050 U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 04:32	7440-28-0	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	4.3 I	mg/L	5.0	2.5	1		01/28/23 06:16	16887-00-6	
Fluoride	0.25	mg/L	0.050	0.015	1		01/28/23 06:16	16984-48-8	
Sulfate	2.5 U	mg/L	5.0	2.5	1		01/28/23 06:16	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	0.097	mg/L	0.050	0.015	1		01/20/23 09:05		
5310B TOC	Analytical Method: SM 5310B Pace Analytical Services - Ormond Beach								
Total Organic Carbon	15.8	mg/L	1.0	0.50	1		01/20/23 23:46	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-R6T4 Lab ID: 35773346006 Collected: 01/08/23 16:22 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Ormond Beach								
Potassium	1860	ug/L	1000	270	1	01/19/23 02:10	01/24/23 00:46	7440-09-7	
Sodium	73400	ug/L	2000	540	1	01/19/23 02:10	01/24/23 00:46	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 05:10	7440-36-0	
Boron	36.6 I	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 13:33	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 05:10	7439-93-2	
Thallium	0.050 U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 05:10	7440-28-0	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	32.5	mg/L	5.0	2.5	1		01/28/23 07:00	16887-00-6	
Fluoride	0.060	mg/L	0.050	0.015	1		01/28/23 07:00	16984-48-8	
Sulfate	156	mg/L	10.0	5.0	2		01/29/23 21:27	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	0.033 I	mg/L	0.050	0.015	1		01/20/23 09:07		
5310B TOC	Analytical Method: SM 5310B Pace Analytical Services - Ormond Beach								
Total Organic Carbon	8.8	mg/L	1.0	0.50	1		01/21/23 00:14	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-EBLANK1 Lab ID: 35773346014 Collected: 01/10/23 08:17 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Ormond Beach								
Potassium	270	U	ug/L	1000	270	1	01/19/23 02:10	01/20/23 15:28	7440-09-7
Sodium	540	U	ug/L	2000	540	1	01/19/23 02:10	01/20/23 15:28	7440-23-5
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	2.5	U	mg/L	5.0	2.5	1	01/27/23 18:50	16887-00-6	
Sulfate	2.5	U	mg/L	5.0	2.5	1	01/27/23 18:50	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	0.015	U	mg/L	0.050	0.015	1	01/27/23 09:52		
5310B TOC	Analytical Method: SM 5310B Pace Analytical Services - Ormond Beach								
Total Organic Carbon	0.50	U	mg/L	1.0	0.50	1	01/21/23 02:52	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-SIS-1 Lab ID: 35773346015 Collected: 01/10/23 09:19 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Pace Analytical Services - Asheville									
Antimony	0.20	U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 05:26	7440-36-0
Boron	15.7	I	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 13:48	7440-42-8
Lithium	0.50	U	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 05:26	7439-93-2
Thallium	0.050	U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 05:26	7440-28-0
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Pace Analytical Services - Ormond Beach									
Chloride	18.9		mg/L	5.0	2.5	1		01/27/23 19:12	16887-00-6
Fluoride	0.20		mg/L	0.050	0.015	1		01/27/23 19:12	16984-48-8
Sulfate	11.4		mg/L	5.0	2.5	1		01/27/23 19:12	14808-79-8

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-SIS-2 Lab ID: 35773346016 Collected: 01/11/23 11:29 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 05:30	7440-36-0	
Boron	21.6 I	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 13:52	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 05:30	7439-93-2	
Thallium	0.050 U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 05:30	7440-28-0	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	28.9	mg/L	5.0	2.5	1		01/27/23 20:19	16887-00-6	
Fluoride	0.40	mg/L	0.050	0.015	1		01/27/23 20:19	16984-48-8	
Sulfate	69.4	mg/L	5.0	2.5	1		01/27/23 20:19	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-SIS-3 Lab ID: 35773346017 Collected: 01/11/23 09:16 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Pace Analytical Services - Asheville									
Antimony	0.20 U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 05:34	7440-36-0	
Boron	12.2 I	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 13:56	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 05:34	7439-93-2	
Thallium	0.050 U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 05:34	7440-28-0	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Pace Analytical Services - Ormond Beach									
Chloride	9.7	mg/L	5.0	2.5	1		01/27/23 20:41	16887-00-6	
Fluoride	0.11	mg/L	0.050	0.015	1		01/27/23 20:41	16984-48-8	
Sulfate	30.2	mg/L	5.0	2.5	1		01/27/23 20:41	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-SIS-4 Lab ID: 35773346018 Collected: 01/11/23 10:27 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 05:45	7440-36-0	
Boron	12.9 I	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 14:00	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 05:45	7439-93-2	
Thallium	0.050 U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 05:45	7440-28-0	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	11.1	mg/L	5.0	2.5	1		01/27/23 21:03	16887-00-6	
Fluoride	0.042 I	mg/L	0.050	0.015	1		01/27/23 21:03	16984-48-8	
Sulfate	43.7	mg/L	5.0	2.5	1		01/27/23 21:03	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-1 Lab ID: 35773346019 Collected: 01/10/23 09:59 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Pace Analytical Services - Asheville									
Antimony	0.35 I	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 05:49	7440-36-0	
Boron	129	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 14:04	7440-42-8	
Lithium	5.3	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 05:49	7439-93-2	
Thallium	0.12 I	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 05:49	7440-28-0	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Pace Analytical Services - Ormond Beach									
Chloride	20.3	mg/L	5.0	2.5	1		01/27/23 21:25	16887-00-6	
Fluoride	0.051	mg/L	0.050	0.015	1		01/27/23 21:25	16984-48-8	
Sulfate	16.2	mg/L	5.0	2.5	1		01/27/23 21:25	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-2 Lab ID: 35773346020 Collected: 01/10/23 10:31 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Pace Analytical Services - Asheville									
Antimony	0.20 U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 05:53	7440-36-0	
Boron	46.8 I	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 14:08	7440-42-8	
Lithium	1.0 I	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 05:53	7439-93-2	
Thallium	0.050 U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 05:53	7440-28-0	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Pace Analytical Services - Ormond Beach									
Chloride	40.7	mg/L	5.0	2.5	1		01/27/23 21:47	16887-00-6	
Fluoride	0.27	mg/L	0.050	0.015	1		01/27/23 21:47	16984-48-8	
Sulfate	30.4	mg/L	5.0	2.5	1		01/27/23 21:47	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-3 Lab ID: 35773346021 Collected: 01/10/23 11:12 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Pace Analytical Services - Asheville									
Antimony	0.20 U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 05:57	7440-36-0	
Boron	1930	ug/L	1250	212	25	01/31/23 13:36	02/01/23 17:08	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 05:57	7439-93-2	
Thallium	0.050 U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 05:57	7440-28-0	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Pace Analytical Services - Ormond Beach									
Chloride	23.5	mg/L	5.0	2.5	1		01/27/23 22:09	16887-00-6	
Fluoride	0.037 I	mg/L	0.050	0.015	1		01/27/23 22:09	16984-48-8	
Sulfate	106	mg/L	10.0	5.0	2		01/29/23 22:56	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-4 Lab ID: 35773346022 Collected: 01/10/23 12:34 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Pace Analytical Services - Asheville									
Antimony	0.20	U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 06:01	7440-36-0
Boron	231		ug/L	150	25.5	3	01/31/23 13:36	02/01/23 17:28	7440-42-8
Lithium	8.1		ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 06:01	7439-93-2
Thallium	0.050	U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 06:01	7440-28-0
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Pace Analytical Services - Ormond Beach									
Chloride	15.8		mg/L	5.0	2.5	1		01/27/23 22:31	16887-00-6
Fluoride	0.042	I	mg/L	0.050	0.015	1		01/27/23 22:31	16984-48-8
Sulfate	38.9		mg/L	5.0	2.5	1		01/27/23 22:31	14808-79-8

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-5 Lab ID: 35773346023 Collected: 01/10/23 13:38 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Antimony	0.20 U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 06:04	7440-36-0	
Boron	1080	ug/L	500	85.0	10	01/31/23 13:36	02/01/23 17:16	7440-42-8	
Lithium	2.3 I	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 06:04	7439-93-2	
Thallium	0.15 I	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 06:04	7440-28-0	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach							
Chloride	37.2	mg/L	5.0	2.5	1		01/29/23 23:18	16887-00-6	
Fluoride	0.092	mg/L	0.050	0.015	1		01/29/23 23:18	16984-48-8	
Sulfate	449	mg/L	25.0	12.5	5		01/27/23 23:38	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-6 Lab ID: 35773346025 Collected: 01/10/23 14:38 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.35 I	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 06:12	7440-36-0	
Boron	65.1	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 06:12	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 06:12	7439-93-2	
Thallium	0.050 U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 06:12	7440-28-0	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	5.3	mg/L	5.0	2.5	1		01/28/23 00:22	16887-00-6	J(M1)
Fluoride	0.050 I	mg/L	0.050	0.015	1		01/28/23 00:22	16984-48-8	
Sulfate	41.9	mg/L	5.0	2.5	1		01/28/23 00:22	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-EBLANK2 Lab ID: 35773346026 Collected: 01/11/23 10:37 Received: 01/18/23 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	01/31/23 13:36	02/01/23 06:16	7440-36-0	
Boron	16.1 I	ug/L	50.0	8.5	1	01/31/23 13:36	02/01/23 06:16	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	01/31/23 13:36	02/01/23 06:16	7439-93-2	
Thallium	0.050 U	ug/L	0.47	0.050	1	01/31/23 13:36	02/01/23 06:16	7440-28-0	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	2.5 U	mg/L	5.0	2.5	1		01/28/23 01:28	16887-00-6	
Fluoride	0.015 U	mg/L	0.050	0.015	1		01/28/23 01:28	16984-48-8	
Sulfate	2.5 U	mg/L	5.0	2.5	1		01/28/23 01:28	14808-79-8	

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	887482	Analysis Method:	EPA 200.7
QC Batch Method:	EPA 200.7	Analysis Description:	200.7 MET
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007, 35773346008, 35773346009, 35773346010, 35773346011, 35773346012, 35773346013		

METHOD BLANK: 4881405 Matrix: Water

Associated Lab Samples: 35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007, 35773346008, 35773346009, 35773346010, 35773346011, 35773346012, 35773346013

Parameter	Units	Blank		Reporting		MDL	Analyzed	Qualifiers
		Result	Limit					
Potassium	ug/L	270	U	1000		270	01/20/23 20:55	
Sodium	ug/L	540	U	2000		540	01/20/23 20:55	

LABORATORY CONTROL SAMPLE: 4881406

Parameter	Units	Spike Conc.	LCS		% Rec % Rec Limits	Qualifiers
			Result	% Rec		
Potassium	ug/L	12500	12700	101	85-115	
Sodium	ug/L	12500	12800	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4881407 4881408

Parameter	Units	35773230001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result						
Potassium	ug/L	2040000	12500	12500	2010000	1990000	-242	-419	70-130	1	20	J(M1), L
Sodium	ug/L	143000	12500	12500	155000	154000	99	85	70-130	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4881409 4881410

Parameter	Units	35773346008 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result						
Potassium	ug/L	270	U	12500	12500	12600	12600	100	100	70-130	0	20
Sodium	ug/L	12900		12500	12500	25700	25800	102	103	70-130	1	20

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	887483	Analysis Method:	EPA 200.7
QC Batch Method:	EPA 200.7	Analysis Description:	200.7 MET
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35773346014, 35773346024		

METHOD BLANK: 4881453 Matrix: Water

Associated Lab Samples: 35773346014, 35773346024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Potassium	ug/L	270 U	1000	270	01/20/23 14:18	
Sodium	ug/L	540 U	2000	540	01/20/23 14:18	

LABORATORY CONTROL SAMPLE: 4881454

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Potassium	ug/L	12500	11900	95	85-115	
Sodium	ug/L	12500	12200	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4881455 4881456

Parameter	Units	35773120001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Potassium	ug/L	32.4 mg/L	12500	12500	44200	43900	94	92	70-130	1	20	
Sodium	ug/L	659 mg/L	12500	12500	656000	648000	-27	-87	70-130	1	20	J(M1), L

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	752808	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3010A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Asheville
Associated Lab Samples:	35773346004, 35773346006, 35773346007, 35773346011, 35773346012, 35773346015, 35773346016, 35773346017, 35773346018, 35773346019, 35773346020, 35773346021, 35773346022, 35773346023, 35773346024, 35773346025, 35773346026		

METHOD BLANK: 3911177 Matrix: Water

Associated Lab Samples: 35773346004, 35773346006, 35773346007, 35773346011, 35773346012, 35773346015, 35773346016, 35773346017, 35773346018, 35773346019, 35773346020, 35773346021, 35773346022, 35773346023, 35773346024, 35773346025, 35773346026

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Antimony	ug/L	0.20	U	1.0	0.20	02/01/23 04:24
Boron	ug/L	8.5	U	50.0	8.5	02/01/23 12:39
Lithium	ug/L	0.50	U	2.5	0.50	02/01/23 04:24
Thallium	ug/L	0.050	U	0.47	0.050	02/01/23 04:24

LABORATORY CONTROL SAMPLE: 3911178

Parameter	Units	Spike	LCS	LCS	% Rec	Limits	Qualifiers
		Conc.	Result	% Rec			
Antimony	ug/L	50	48.6	97	80-120		
Boron	ug/L	50	48.0	96	80-120		
Lithium	ug/L	50	50.7	101	80-120		
Thallium	ug/L	25	25.4	102	80-120		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3911179 3911180

Parameter	Units	35773346004	MS	MSD	MS	MSD	% Rec	MSD % Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.									
Antimony	ug/L	0.20	U	50	50	50.2	50.5	100	101	75-125	1	20	
Boron	ug/L	15.3	I	50	50	69.2	69.4	108	108	75-125	0	20	
Lithium	ug/L	0.50	U	50	50	48.1	46.4	96	93	75-125	4	20	
Thallium	ug/L	0.050	U	25	25	25.9	25.6	104	103	75-125	1	20	

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	889843	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007, 35773346008, 35773346009, 35773346010		

METHOD BLANK: 4893366 Matrix: Water

Associated Lab Samples: 35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007,
35773346008, 35773346009, 35773346010

Parameter	Units	Blank		Reporting		Qualifiers
		Result	Limit	MDL	Analyzed	
Chloride	mg/L	2.5 U	5.0	2.5	01/28/23 03:44	
Fluoride	mg/L	0.015 U	0.050	0.015	01/28/23 03:44	
Sulfate	mg/L	2.5 U	5.0	2.5	01/28/23 03:44	

LABORATORY CONTROL SAMPLE: 4893367

Parameter	Units	Spike		LCS		% Rec		Qualifiers
		Conc.	Result	% Rec	Limits			
Chloride	mg/L	50	49.0	98	90-110			
Fluoride	mg/L	5	5.1	103	90-110			
Sulfate	mg/L	50	48.2	96	90-110			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4895247 4895248

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		35773346002	Spike Conc.	Spike Conc.	MS Result						
Chloride	mg/L	6.0	50	50	55.0	54.2	98	96	90-110	1	20
Fluoride	mg/L	0.27	5	5	5.4	5.4	104	102	90-110	1	20
Sulfate	mg/L	2.5 U	50	50	49.2	48.5	94	93	90-110	2	20

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	889889	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35773346011, 35773346012, 35773346013		

METHOD BLANK: 4893581 Matrix: Water

Associated Lab Samples: 35773346011, 35773346012, 35773346013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	2.5 U	5.0	2.5	01/28/23 04:47	
Fluoride	mg/L	0.015 U	0.050	0.015	01/28/23 04:47	
Sulfate	mg/L	2.5 U	5.0	2.5	01/28/23 04:47	

LABORATORY CONTROL SAMPLE: 4893582

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.7	97	90-110	
Fluoride	mg/L	5	5.2	104	90-110	
Sulfate	mg/L	50	48.6	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4895278 4895279

Parameter	Units	35773346013	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
		Result										
Chloride	mg/L	10.1	50	50	58.2	53.4	96	87	90-110	8	20	J(M1)
Fluoride	mg/L	0.38	5	5	5.4	4.9	101	91	90-110	9	20	
Sulfate	mg/L	45.3	50	50	98.5	93.2	107	96	90-110	6	20	

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	889920	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35773346014, 35773346015, 35773346016, 35773346017, 35773346018, 35773346019, 35773346020, 35773346021, 35773346022, 35773346023, 35773346024, 35773346025, 35773346026		

METHOD BLANK: 4893866 Matrix: Water

Associated Lab Samples: 35773346014, 35773346015, 35773346016, 35773346017, 35773346018, 35773346019, 35773346020, 35773346021, 35773346022, 35773346023, 35773346024, 35773346025, 35773346026

Parameter	Units	Blank		Reporting		Qualifiers
		Result	Limit	MDL	Analyzed	
Chloride	mg/L	2.5 U	5.0	2.5	01/27/23 17:44	
Fluoride	mg/L	0.015 U	0.050	0.015	01/27/23 17:44	
Sulfate	mg/L	2.5 U	5.0	2.5	01/27/23 17:44	

LABORATORY CONTROL SAMPLE: 4893867

Parameter	Units	Spike		LCS		% Rec		Qualifiers
		Conc.	Result	% Rec	Limits			
Chloride	mg/L	50	48.8	98	90-110			
Fluoride	mg/L	5	5.2	104	90-110			
Sulfate	mg/L	50	48.7	97	90-110			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4895274 4895275

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		35773346015	Spike Conc.	Spike Conc.	MS Result						
Chloride	mg/L	18.9	50	50	67.9	66.8	98	96	90-110	2	20
Fluoride	mg/L	0.20	5	5	5.1	5.0	98	96	90-110	2	20
Sulfate	mg/L	11.4	50	50	57.7	56.6	93	90	90-110	2	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4895276 4895277

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		35773346025	Spike Conc.	Spike Conc.	MS Result						
Chloride	mg/L	5.3	50	50	49.7	50.1	89	90	90-110	1	20 J(M1)
Fluoride	mg/L	0.050 I	5	5	4.8	4.9	96	97	90-110	1	20
Sulfate	mg/L	41.9	50	50	92.5	93.0	101	102	90-110	1	20

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	890216	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35773346006, 35773346010, 35773346021, 35773346023		

METHOD BLANK: 4895290 Matrix: Water

Associated Lab Samples: 35773346006, 35773346010, 35773346021, 35773346023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	2.5 U	5.0	2.5	01/29/23 17:01	
Fluoride	mg/L	0.015 U	0.050	0.015	01/29/23 17:01	
Sulfate	mg/L	2.5 U	5.0	2.5	01/29/23 17:01	

LABORATORY CONTROL SAMPLE: 4895291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.4	97	90-110	
Fluoride	mg/L	5	5.2	104	90-110	
Sulfate	mg/L	50	48.2	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4895851 4895852

Parameter	Units	35773176001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec	Max		
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	88.1	100	100	188	195	100	107	90-110	3	20	
Fluoride	mg/L	0.13	5	5	5.3	5.4	103	105	90-110	2	20	
Sulfate	mg/L	100	100	100	200	207	100	107	90-110	3	20	L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4895853 4895854

Parameter	Units	35773745002	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec	Max		
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	6.6	50	50	55.3	55.0	97	97	90-110	1	20	
Fluoride	mg/L	0.030 I	5	5	5.2	5.2	103	103	90-110	0	20	
Sulfate	mg/L	2.8 I	50	50	50.0	49.8	95	94	90-110	0	20	

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	887875	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, preserved
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007, 35773346008, 35773346009, 35773346010, 35773346011, 35773346012		

METHOD BLANK: 4883694 Matrix: Water

Associated Lab Samples: 35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007, 35773346008, 35773346009, 35773346010, 35773346011, 35773346012

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Nitrogen, NO ₂ plus NO ₃	mg/L	0.015 U	0.050	0.015	01/20/23 08:39	

LABORATORY CONTROL SAMPLE: 4883695

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Nitrogen, NO ₂ plus NO ₃	mg/L	2	2.2	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4883697 4883696

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max	
		35773619013	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	0.73	2	2	2.7	2.7	98	99	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4883699 4883698

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max	
		35773346003	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	0.27	2	2	2.3	2.3	99	100	90-110	0	20	

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	889730	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, preserved
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35773346013, 35773346014		

METHOD BLANK: 4892963 Matrix: Water

Associated Lab Samples: 35773346013, 35773346014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	0.015 U	0.050	0.015	01/27/23 09:23	

LABORATORY CONTROL SAMPLE: 4892964

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	2	2.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4892966 4892965

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	0.015 U	2	2	1.8	1.9	91	92	90-110	1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4892968 4892967

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	0.32	2	2	2.2	2.1	91	90	90-110	2	20

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QUALITY CONTROL DATA

Project: ENV1Q23
Pace Project No.: 35773346

QC Batch:	887994	Analysis Method:	SM 5310B
QC Batch Method:	SM 5310B	Analysis Description:	5310B TOC
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007, 35773346008, 35773346009, 35773346010, 35773346011, 35773346012, 35773346013, 35773346014		

METHOD BLANK: 4884186 Matrix: Water

Associated Lab Samples: 35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007,
35773346008, 35773346009, 35773346010, 35773346011, 35773346012, 35773346013, 35773346014

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Total Organic Carbon	mg/L	0.50 U	1.0	0.50	01/20/23 22:02	

LABORATORY CONTROL SAMPLE: 4884187

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Total Organic Carbon	mg/L	20	19.7	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4884188 4884189

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max	
		35773658005	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Total Organic Carbon	mg/L	2.6	20	20	23.2	23.2	103	103	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4884190 4884191

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max	
		35773346007	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Total Organic Carbon	mg/L	1.6	20	20	21.0	20.9	97	96	80-120	1	20	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-R4T5 **Lab ID:** 35773346004 **Collected:** 01/08/23 10:24 **Received:** 01/18/23 10:00 **Matrix:** Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Gross Alpha	SM 7110C-11	4.67 ± 1.84 (2.31) C:NA T:NA	pCi/L	01/26/23 19:02	12587-46-1	
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.869U ± 0.468 (0.869) C:NA T:101%	pCi/L	02/03/23 14:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.859U ± 0.350 (0.859) C:93% T:91%	pCi/L	02/03/23 11:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.73U ± 0.818 (1.73)	pCi/L	02/08/23 16:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-R6T4 **Lab ID:** 35773346006 Collected: 01/08/23 16:22 Received: 01/18/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Gross Alpha	SM 7110C-11	3.88 ± 1.77 (2.49) C:NA T:NA	pCi/L	01/26/23 19:02	12587-46-1	
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.826U ± 0.489 (0.826) C:NA T:99%	pCi/L	02/03/23 14:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.742U ± 0.335 (0.742) C:90% T:91%	pCi/L	02/03/23 11:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.57U ± 0.824 (1.57)	pCi/L	02/08/23 16:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
 Pace Project No.: 35773346

Sample: 1Q23-EBLANK1 **Lab ID:** 35773346014 Collected: 01/10/23 08:17 Received: 01/18/23 10:00 Matrix: Water

PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Gross Alpha	SM 7110C-11	2.65U ± 1.52 (2.65) C:NA T:NA	pCi/L	01/26/23 19:32	12587-46-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-SIS-1 **Lab ID:** 35773346015 Collected: 01/10/23 09:19 Received: 01/18/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.779U ± 0.347 (0.779) C:NA T:102%	pCi/L	02/03/23 14:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.748U ± 0.340 (0.748) C:93% T:95%	pCi/L	02/03/23 11:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.53U ± 0.687 (1.53)	pCi/L	02/08/23 16:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-SIS-2 **Lab ID:** 35773346016 **Collected:** 01/11/23 11:29 **Received:** 01/18/23 10:00 **Matrix:** Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.724U ± 0.476 (0.724) C:NA T:101%	pCi/L	02/03/23 14:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.771U ± 0.347 (0.771) C:94% T:86%	pCi/L	02/03/23 11:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.50U ± 0.823 (1.50)	pCi/L	02/08/23 16:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-SIS-3 **Lab ID:** 35773346017 **Collected:** 01/11/23 09:16 **Received:** 01/18/23 10:00 **Matrix:** Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.887U ± 0.478 (0.887) C:NA T:108%	pCi/L	02/03/23 14:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.788U ± 0.386 (0.788) C:93% T:89%	pCi/L	02/03/23 11:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.68U ± 0.864 (1.68)	pCi/L	02/08/23 16:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-SIS-4 **Lab ID:** 35773346018 **Collected:** 01/11/23 10:27 **Received:** 01/18/23 10:00 **Matrix:** Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.937 ± 0.573 (0.703) C:NA T:93%	pCi/L	02/03/23 14:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.647U ± 0.348 (0.647) C:92% T:84%	pCi/L	02/03/23 11:29	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.47 ± 0.921 (1.35)	pCi/L	02/08/23 16:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-2 **Lab ID:** 35773346020 Collected: 01/10/23 10:31 Received: 01/18/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.996 ± 0.700 (0.893) C:NA T:97%	pCi/L	02/07/23 12:45	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.705U ± 0.383 (0.705) C:90% T:88%	pCi/L	02/03/23 11:29	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.60U ± 1.08 (1.60)	pCi/L	02/08/23 16:14	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-3 **Lab ID:** 35773346021 Collected: 01/10/23 11:12 Received: 01/18/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.31 ± 0.740 (0.921) C:NA T:78%	pCi/L	02/03/23 15:20	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.684U ± 0.379 (0.684) C:90% T:87%	pCi/L	02/03/23 11:29	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.94 ± 1.12 (1.61)	pCi/L	02/08/23 16:14	7440-14-4	

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(386)672-5668

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-4 **Lab ID:** 35773346022 **Collected:** 01/10/23 12:34 **Received:** 01/18/23 10:00 **Matrix:** Water
PWS: **Site ID:** **Sample Type:**

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.26 ± 0.587 (0.606) C:NA T:108%	pCi/L	02/03/23 15:20	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.652U ± 0.329 (0.652) C:89% T:92%	pCi/L	02/03/23 11:29	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.66 ± 0.916 (1.26)	pCi/L	02/08/23 16:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-5 **Lab ID:** 35773346023 **Collected:** 01/10/23 13:38 **Received:** 01/18/23 10:00 **Matrix:** Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	7.36 ± 1.63 (0.920) C:NA T:97%	pCi/L	02/03/23 15:20	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	3.59 ± 0.903 (0.825) C:87% T:86%	pCi/L	02/03/23 11:29	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	10.9 ± 2.53 (1.75)	pCi/L	02/08/23 16:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-LF-6 **Lab ID:** 35773346025 **Collected:** 01/10/23 14:38 **Received:** 01/18/23 10:00 **Matrix:** Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.675U ± 0.364 (0.675) C:NA T:95%	pCi/L	02/03/23 15:20	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.734U ± 0.375 (0.734) C:91% T:92%	pCi/L	02/03/23 11:29	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.41U ± 0.739 (1.41)	pCi/L	02/08/23 16:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23
Pace Project No.: 35773346

Sample: 1Q23-EBLANK2 **Lab ID:** 35773346026 Collected: 01/11/23 10:37 Received: 01/18/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.688U ± 0.317 (0.688) C:NA T:92%	pCi/L	02/03/23 15:20	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.605U ± 0.291 (0.605) C:91% T:97%	pCi/L	02/03/23 11:29	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.29U ± 0.608 (1.29)	pCi/L	02/08/23 16:14	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ENV1Q23
 Pace Project No.: 35773346

QC Batch:	561890	Analysis Method:	SM 7110C-11
QC Batch Method:	SM 7110C-11	Analysis Description:	7110C Gross Alpha
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007, 35773346008, 35773346009, 35773346010, 35773346011, 35773346012, 35773346013, 35773346014		

METHOD BLANK: 2729072 Matrix: Water

Associated Lab Samples: 35773346001, 35773346002, 35773346003, 35773346004, 35773346005, 35773346006, 35773346007,
35773346008, 35773346009, 35773346010, 35773346011, 35773346012, 35773346013, 35773346014

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	1.89 ± 1.24 (1.89) C:NA T:NA	pCi/L	01/27/23 08:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ENV1Q23

Pace Project No.: 35773346

QC Batch: 561794

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 35773346004, 35773346006, 35773346007, 35773346011, 35773346012, 35773346015, 35773346016,
35773346017, 35773346018, 35773346020, 35773346021, 35773346022, 35773346023, 35773346025,
35773346026

METHOD BLANK: 2728649

Matrix: Water

Associated Lab Samples: 35773346004, 35773346006, 35773346007, 35773346011, 35773346012, 35773346015, 35773346016,
35773346017, 35773346018, 35773346020, 35773346021, 35773346022, 35773346023, 35773346025,
35773346026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.137 ± 0.235 (0.513) C:91% T:99%	pCi/L	02/03/23 11:27	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ENV1Q23

Pace Project No.: 35773346

QC Batch: 561792

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 35773346004, 35773346006, 35773346007, 35773346011, 35773346012, 35773346015, 35773346016,
35773346017, 35773346018, 35773346020, 35773346021, 35773346022, 35773346023, 35773346025,
35773346026

METHOD BLANK: 2728648

Matrix: Water

Associated Lab Samples: 35773346004, 35773346006, 35773346007, 35773346011, 35773346012, 35773346015, 35773346016,
35773346017, 35773346018, 35773346020, 35773346021, 35773346022, 35773346023, 35773346025,
35773346026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.261 ± 0.271 (0.403) C:NA T:101%	pCi/L	02/03/23 14:42	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: ENV1Q23
Pace Project No.: 35773346

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Act - Activity
Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).
Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)
(MDC) - Minimum Detectable Concentration
Trac - Tracer Recovery (%)
Carr - Carrier Recovery (%)
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- U Compound was analyzed for but not detected.
- J(M1) Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- L Off-scale high. Actual value is known to be greater than value given.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ENV1Q23
Pace Project No.: 35773346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35773346001	1Q23-R1T6	EPA 200.7	887482	EPA 200.7	887505
35773346002	1Q23-R2T1	EPA 200.7	887482	EPA 200.7	887505
35773346003	1Q23-R3T7	EPA 200.7	887482	EPA 200.7	887505
35773346004	1Q23-R4T5	EPA 200.7	887482	EPA 200.7	887505
35773346005	1Q23-R6T1	EPA 200.7	887482	EPA 200.7	887505
35773346006	1Q23-R6T4	EPA 200.7	887482	EPA 200.7	887505
35773346007	1Q23-R6T8	EPA 200.7	887482	EPA 200.7	887505
35773346008	1Q23-R6T12	EPA 200.7	887482	EPA 200.7	887505
35773346009	1Q23-R8T10	EPA 200.7	887482	EPA 200.7	887505
35773346010	1Q23-R9T5	EPA 200.7	887482	EPA 200.7	887505
35773346011	1Q23-R10T8	EPA 200.7	887482	EPA 200.7	887505
35773346012	1Q23-R11T4	EPA 200.7	887482	EPA 200.7	887505
35773346013	1Q23-DEEP	EPA 200.7	887482	EPA 200.7	887505
35773346014	1Q23-EBLANK1	EPA 200.7	887483	EPA 200.7	887504
35773346024	1Q23-Barnstead	EPA 200.7	887483	EPA 200.7	887504
35773346004	1Q23-R4T5	EPA 3010A	752808	EPA 6020B	752920
35773346006	1Q23-R6T4	EPA 3010A	752808	EPA 6020B	752920
35773346007	1Q23-R6T8	EPA 3010A	752808	EPA 6020B	752920
35773346011	1Q23-R10T8	EPA 3010A	752808	EPA 6020B	752920
35773346012	1Q23-R11T4	EPA 3010A	752808	EPA 6020B	752920
35773346015	1Q23-SIS-1	EPA 3010A	752808	EPA 6020B	752920
35773346016	1Q23-SIS-2	EPA 3010A	752808	EPA 6020B	752920
35773346017	1Q23-SIS-3	EPA 3010A	752808	EPA 6020B	752920
35773346018	1Q23-SIS-4	EPA 3010A	752808	EPA 6020B	752920
35773346019	1Q23-LF-1	EPA 3010A	752808	EPA 6020B	752920
35773346020	1Q23-LF-2	EPA 3010A	752808	EPA 6020B	752920
35773346021	1Q23-LF-3	EPA 3010A	752808	EPA 6020B	752920
35773346022	1Q23-LF-4	EPA 3010A	752808	EPA 6020B	752920
35773346023	1Q23-LF-5	EPA 3010A	752808	EPA 6020B	752920
35773346024	1Q23-Barnstead	EPA 3010A	752808	EPA 6020B	752920
35773346025	1Q23-LF-6	EPA 3010A	752808	EPA 6020B	752920
35773346026	1Q23-EBLANK2	EPA 3010A	752808	EPA 6020B	752920
35773346001	1Q23-R1T6	SM 7110C-11	561890		
35773346002	1Q23-R2T1	SM 7110C-11	561890		
35773346003	1Q23-R3T7	SM 7110C-11	561890		
35773346004	1Q23-R4T5	SM 7110C-11	561890		
35773346005	1Q23-R6T1	SM 7110C-11	561890		
35773346006	1Q23-R6T4	SM 7110C-11	561890		
35773346007	1Q23-R6T8	SM 7110C-11	561890		
35773346008	1Q23-R6T12	SM 7110C-11	561890		
35773346009	1Q23-R8T10	SM 7110C-11	561890		
35773346010	1Q23-R9T5	SM 7110C-11	561890		
35773346011	1Q23-R10T8	SM 7110C-11	561890		
35773346012	1Q23-R11T4	SM 7110C-11	561890		
35773346013	1Q23-DEEP	SM 7110C-11	561890		
35773346014	1Q23-EBLANK1	SM 7110C-11	561890		
35773346004	1Q23-R4T5	EPA 903.1	561792		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ENV1Q23
Pace Project No.: 35773346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35773346006	1Q23-R6T4	EPA 903.1	561792		
35773346007	1Q23-R6T8	EPA 903.1	561792		
35773346011	1Q23-R10T8	EPA 903.1	561792		
35773346012	1Q23-R11T4	EPA 903.1	561792		
35773346015	1Q23-SIS-1	EPA 903.1	561792		
35773346016	1Q23-SIS-2	EPA 903.1	561792		
35773346017	1Q23-SIS-3	EPA 903.1	561792		
35773346018	1Q23-SIS-4	EPA 903.1	561792		
35773346020	1Q23-LF-2	EPA 903.1	561792		
35773346021	1Q23-LF-3	EPA 903.1	561792		
35773346022	1Q23-LF-4	EPA 903.1	561792		
35773346023	1Q23-LF-5	EPA 903.1	561792		
35773346025	1Q23-LF-6	EPA 903.1	561792		
35773346026	1Q23-EBLANK2	EPA 903.1	561792		
35773346004	1Q23-R4T5	EPA 904.0	561794		
35773346006	1Q23-R6T4	EPA 904.0	561794		
35773346007	1Q23-R6T8	EPA 904.0	561794		
35773346011	1Q23-R10T8	EPA 904.0	561794		
35773346012	1Q23-R11T4	EPA 904.0	561794		
35773346015	1Q23-SIS-1	EPA 904.0	561794		
35773346016	1Q23-SIS-2	EPA 904.0	561794		
35773346017	1Q23-SIS-3	EPA 904.0	561794		
35773346018	1Q23-SIS-4	EPA 904.0	561794		
35773346020	1Q23-LF-2	EPA 904.0	561794		
35773346021	1Q23-LF-3	EPA 904.0	561794		
35773346022	1Q23-LF-4	EPA 904.0	561794		
35773346023	1Q23-LF-5	EPA 904.0	561794		
35773346025	1Q23-LF-6	EPA 904.0	561794		
35773346026	1Q23-EBLANK2	EPA 904.0	561794		
35773346004	1Q23-R4T5	Total Radium Calculation	565639		
35773346006	1Q23-R6T4	Total Radium Calculation	565639		
35773346007	1Q23-R6T8	Total Radium Calculation	565639		
35773346011	1Q23-R10T8	Total Radium Calculation	565639		
35773346012	1Q23-R11T4	Total Radium Calculation	565639		
35773346015	1Q23-SIS-1	Total Radium Calculation	565639		
35773346016	1Q23-SIS-2	Total Radium Calculation	565639		
35773346017	1Q23-SIS-3	Total Radium Calculation	565639		
35773346018	1Q23-SIS-4	Total Radium Calculation	565639		
35773346020	1Q23-LF-2	Total Radium Calculation	565639		
35773346021	1Q23-LF-3	Total Radium Calculation	565639		
35773346022	1Q23-LF-4	Total Radium Calculation	565639		
35773346023	1Q23-LF-5	Total Radium Calculation	565639		
35773346025	1Q23-LF-6	Total Radium Calculation	565639		
35773346026	1Q23-EBLANK2	Total Radium Calculation	565639		
35773346001	1Q23-R1T6	EPA 300.0	889843		
35773346002	1Q23-R2T1	EPA 300.0	889843		
35773346003	1Q23-R3T7	EPA 300.0	889843		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ENV1Q23
Pace Project No.: 35773346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35773346004	1Q23-R4T5	EPA 300.0	889843		
35773346005	1Q23-R6T1	EPA 300.0	889843		
35773346006	1Q23-R6T4	EPA 300.0	889843		
35773346006	1Q23-R6T4	EPA 300.0	890216		
35773346007	1Q23-R6T8	EPA 300.0	889843		
35773346008	1Q23-R6T12	EPA 300.0	889843		
35773346009	1Q23-R8T10	EPA 300.0	889843		
35773346010	1Q23-R9T5	EPA 300.0	889843		
35773346010	1Q23-R9T5	EPA 300.0	890216		
35773346011	1Q23-R10T8	EPA 300.0	889889		
35773346012	1Q23-R11T4	EPA 300.0	889889		
35773346013	1Q23-DEEP	EPA 300.0	889889		
35773346014	1Q23-EBLANK1	EPA 300.0	889920		
35773346015	1Q23-SIS-1	EPA 300.0	889920		
35773346016	1Q23-SIS-2	EPA 300.0	889920		
35773346017	1Q23-SIS-3	EPA 300.0	889920		
35773346018	1Q23-SIS-4	EPA 300.0	889920		
35773346019	1Q23-LF-1	EPA 300.0	889920		
35773346020	1Q23-LF-2	EPA 300.0	889920		
35773346021	1Q23-LF-3	EPA 300.0	889920		
35773346021	1Q23-LF-3	EPA 300.0	890216		
35773346022	1Q23-LF-4	EPA 300.0	889920		
35773346023	1Q23-LF-5	EPA 300.0	889920		
35773346023	1Q23-LF-5	EPA 300.0	890216		
35773346024	1Q23-Barnstead	EPA 300.0	889920		
35773346025	1Q23-LF-6	EPA 300.0	889920		
35773346026	1Q23-EBLANK2	EPA 300.0	889920		
35773346001	1Q23-R1T6	EPA 353.2	887875		
35773346002	1Q23-R2T1	EPA 353.2	887875		
35773346003	1Q23-R3T7	EPA 353.2	887875		
35773346004	1Q23-R4T5	EPA 353.2	887875		
35773346005	1Q23-R6T1	EPA 353.2	887875		
35773346006	1Q23-R6T4	EPA 353.2	887875		
35773346007	1Q23-R6T8	EPA 353.2	887875		
35773346008	1Q23-R6T12	EPA 353.2	887875		
35773346009	1Q23-R8T10	EPA 353.2	887875		
35773346010	1Q23-R9T5	EPA 353.2	887875		
35773346011	1Q23-R10T8	EPA 353.2	887875		
35773346012	1Q23-R11T4	EPA 353.2	887875		
35773346013	1Q23-DEEP	EPA 353.2	889730		
35773346014	1Q23-EBLANK1	EPA 353.2	889730		
35773346001	1Q23-R1T6	SM 5310B	887994		
35773346002	1Q23-R2T1	SM 5310B	887994		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ENV1Q23
Pace Project No.: 35773346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35773346003	1Q23-R3T7	SM 5310B	887994		
35773346004	1Q23-R4T5	SM 5310B	887994		
35773346005	1Q23-R6T1	SM 5310B	887994		
35773346006	1Q23-R6T4	SM 5310B	887994		
35773346007	1Q23-R6T8	SM 5310B	887994		
35773346008	1Q23-R6T12	SM 5310B	887994		
35773346009	1Q23-R8T10	SM 5310B	887994		
35773346010	1Q23-R9T5	SM 5310B	887994		
35773346011	1Q23-R10T8	SM 5310B	887994		
35773346012	1Q23-R11T4	SM 5310B	887994		
35773346013	1Q23-DEEP	SM 5310B	887994		
35773346014	1Q23-EBLANK1	SM 5310B	887994		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OFF-CUSTODY Analytical Request Document

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

Company: Gainesville Regional Utilities

Address: 1001 NW 13th St.
Gainesville, FL 32653

Report To: Jeff Boudreau

Copy To:

Customer Project Name/Number:

ENV1Q23

Phone: 352-393-6346

Email: boudreaujp@gru.com

Collected By (print):

Purchase Order #: 4510057587

Quote #:

Collected By (signature):

Turnaround Date Required:

Normal

Rush:

[] Same Day [] Next Day [] 3 Day [] 4 Day [] 5 Day

(Expedite Charges Apply)

Field Filtered (if applicable):

[] Yes [] No

Analysis:

Compliance Monitoring?

[] Yes [] No

DW PWS ID #:

DW Location Code:

Immediately Packed on Ice:

[✓] Yes [] No

USDA Regulated Soil:

Y N NA

Samples in Holding Time:

Y N NA

Residual Chlorine Present:

Y N NA

C1 Strips:

Y N NA

Sample pH Acceptable:

Y N NA

pH Strips:

Y N NA

Sulfide Present:

Y N NA

Lead Acetate Strips:

Y N NA

LAB USE ONLY: Lab Sample # / Comments:

Customer Sample ID Matrix * Matrix * Comp / Grab Collected (or Composite Start) Composite End Res CI # of Ctrs

Date Time Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Billing Information:

PO#4510057587

Email To: boudreaujp@gru.com

Site Collection Info/Address:
Deerhaven Generating Station

State: FL County/City: /Gainesville

Time Zone Collected:

[] PT [] MT [] CT [✓] ET

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA

Collector Signatures Present Y N NA

Bottles Intact Y N NA

Correct Bottles Y N NA

Sufficient Volume Y N NA

Samples Received on Ice Y N NA

VOA - Headspace Acceptable Y N NA

USDA Regulated Soil Y N NA

Samples in Holding Time Y N NA

Residual Chlorine Present Y N NA

C1 Strips: Y N NA

Sample pH Acceptable Y N NA

PH Strips: Y N NA

Sulphide Present Y N NA

Lead Acetate Strips: Y N NA

Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

[] Lab Sample # / Comments:

[] Custody Seals Present/Intact Y N NA

[] Collector Signatures Present Y N NA

[] Bottles Intact Y N NA

[] Correct Bottles Y N NA

[] Sufficient Volume Y N NA

[] Samples Received on Ice Y N NA

[] VOA - Headspace Acceptable Y N NA

[] USDA Regulated Soil Y N NA

[] Samples in Holding Time Y N NA

[] Residual Chlorine Present Y N NA

[] C1 Strips: Y N NA

[] Sample pH Acceptable Y N NA

[] PH Strips: Y N NA

[] Sulphide Present Y N NA

[] Lead Acetate Strips: Y N NA

Pace Container Order #1039257

Addresses

Order By :

Company Deerhaven Lab
 Contact Boudreau, Jeffery
 Email boudreaujp@gru.com
 Address 10001 NW 13th Street
 Address 2
 City Gainesville
 State FL Zip 32653
 Phone (352) 393-6349

Ship To :

Company Deerhaven Lab
 Contact Boudreau, Jeffery
 Email boudreaujp@gru.com
 Address 10001 NW 13th Street
 Address 2
 City Gainesville
 State FL Zip 32653
 Phone (352) 393-6349

Return To:

Company Pace Analytical Ormond Beach
 Contact Baylor, Jeff
 Email jeff.baylor@pacelabs.com
 Address 8 East Tower Circle
 Address 2
 City Ormond Beach
 State FL Zip 32174
 Phone (386)672-5668

Info

Project Name Cooler Due Date 01/06/2023 Profile NA Quote _____
 Project Manager Baylor, Jeff Return Date _____ Carrier FedEx Ground Location FL

Trip Blanks

Include Trip Blanks

Bottle Labels

Blank
 Pre-Printed No Sample IDs
 Pre-Printed With Sample IDs

Bottles

Boxed Cases
 Individually Wrapped
 Grouped By Sample ID/Matrix

Return Shipping Labels

No Shipper
 With Shipper

Misc

Sampling Instructions
 Custody Seal
 Temp. Blanks
 Coolers 2
 Syringes

Extra Bubble Wrap
 Short Hold/Rush Stickers
 DI Water Liter(s)
 USDA Regulated Soils

COC Options

Number of Blanks _____
 Pre-Printed _____

# of Samples	Matrix	Test	Container	Total	# of	Lot #	Notes
2	WT	Coolers	large	2			

Hazard Shipping Placard In Place : NO

*Sample receiving hours are Mon-Fri 8:00am-6:00pm and Sat 10:00am-6:00pm unless special arrangements are made with your project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

LAB USE:

Ship Date : 01/06/2023

Prepared By: AJ

Verified By:

Sample

CLIENT USE (Optional):

Date Rec'd:

Received By:

Verified By:

Pace

WO# : 35773346

CUR)

Project #

PM: JSB

Due Date: 02/03/23

Project Manager:

CLIENT: DEELAB

Client:

Thermometer Used:

T-4C7

Date:

11/18/23

Time:

10:11

Initials:

ZAB

State of Origin:

For WV projects, all containers verified to ≤ 6 °C

Cooler #1 Temp. °C 19.0 (Visual)

-C° (Correction Factor)

19.5 (Actual)

metal

Cooler #2 Temp. °C 15.8 (Visual)

-C° (Correction Factor)

15.7 (Actual)

Cooler #3 Temp. °C 15.9 (Visual)

-C° (Correction Factor)

15.8 (Actual)

Cooler #4 Temp. °C 16.1 (Visual)

-C° (Correction Factor)

16.0 (Actual)

Cooler #5 Temp. °C 17.0 (Visual)

-C° (Correction Factor)

16.9 (Actual)

Cooler #6 Temp. °C 3.0 (Visual)

-C° (Correction Factor)

3.8 (Actual)

Recheck for OOT °C _____ (Visual)

(Correction Factor)

(Actual)

Time: _____

Initials: _____

Courier: FedEx UPS USPS Client Commercial Pace Other _____

Shipping Method: First Overnight Priority Overnight Standard Overnight Ground International Priority
 Other _____

Billing: Recipient Sender Third Party Credit Card Unknown

Tracking # 816709382915

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Ice: Wet Blue Melted None

Packing Material: Bubble Wrap Bubble Bags None Other _____

Samples shorted to lab (If Yes, complete)

Shorted Date: _____

Shorted Time: _____

Qty: _____

Comments:

Chain of Custody Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Chain of Custody Filled Out	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	No dates/time on COC-BLP	
Relinquished Signature & Sampler Name COC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Samples Arrived within Hold Time	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Rush TAT requested on COC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Sufficient Volume	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Sample Labels match COC (sample IDs & date/time of collection)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
All containers needing acid/base preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Preservation Information:	
All Containers needing preservation are found to be in compliance with EPA recommendation:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Preservative: _____	
Exceptions: Vials, Microbiology, O&G, PFAS		Lot #/Trace #: _____	
Headspace in VOA Vials? (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Date: _____ Time: _____	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Initials: _____	

Comments/ Resolution (use back for additional comments):

March 08, 2023

Mr. Jeffery Boudreau
Deerhaven Lab
P.O. Box 147117, Station D38
Gainesville, FL 32614

RE: Project: ENV1Q23 Resample
Pace Project No.: 35780950

Dear Mr. Boudreau:

Enclosed are the analytical results for sample(s) received by the laboratory on February 21, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jeff Baylor
jeff.baylor@pacelabs.com
(386)672-5668
Project Manager

Enclosures

cc: Kent Brakefield
Kimberly Morrison, Deerhaven Labs
Shelley Phillips, Deerhaven Lab



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ENV1Q23 Resample
 Pace Project No.: 35780950

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601	Missouri Certification #: 235
ANAB DOD-ELAP Rad Accreditation #: L2417	Montana Certification #: Cert0082
Alabama Certification #: 41590	Nebraska Certification #: NE-OS-29-14
Arizona Certification #: AZ0734	Nevada Certification #: PA014572018-1
Arkansas Certification	New Hampshire/TNI Certification #: 297617
California Certification #: 04222CA	New Jersey/TNI Certification #: PA051
Colorado Certification #: PA01547	New Mexico Certification #: PA01457
Connecticut Certification #: PH-0694	New York/TNI Certification #: 10888
Delaware Certification	North Carolina Certification #: 42706
EPA Region 4 DW Rad	North Dakota Certification #: R-190
Florida/TNI Certification #: E87683	Ohio EPA Rad Approval: #41249
Georgia Certification #: C040	Oregon/TNI Certification #: PA200002-010
Florida: Cert E871149 SEKS WET	Pennsylvania/TNI Certification #: 65-00282
Guam Certification	Puerto Rico Certification #: PA01457
Hawaii Certification	Rhode Island Certification #: 65-00282
Idaho Certification	South Dakota Certification
Illinois Certification	Tennessee Certification #: 02867
Indiana Certification	Texas/TNI Certification #: T104704188-17-3
Iowa Certification #: 391	Utah/TNI Certification #: PA014572017-9
Kansas/TNI Certification #: E-10358	USDA Soil Permit #: P330-17-00091
Kentucky Certification #: KY90133	Vermont Dept. of Health: ID# VT-0282
KY WW Permit #: KY0098221	Virgin Island/PADEP Certification
KY WW Permit #: KY0000221	Virginia/VELAP Certification #: 460198
Louisiana DHH/TNI Certification #: LA180012	Washington Certification #: C868
Louisiana DEQ/TNI Certification #: 4086	West Virginia DEP Certification #: 143
Maine Certification #: 2017020	West Virginia DHHR Certification #: 9964C
Maryland Certification #: 308	Wisconsin Approve List for Rad
Massachusetts Certification #: M-PA1457	Wyoming Certification #: 8TMS-L
Michigan/PADEP Certification #: 9991	

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ENV1Q23 Resample
Pace Project No.: 35780950

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35780950001	1Q23-LF-1	Water	02/16/23 09:43	02/21/23 11:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ENV1Q23 Resample
Pace Project No.: 35780950

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35780950001	1Q23-LF-1	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV1Q23 Resample
Pace Project No.: 35780950

Sample: 1Q23-LF-1 **Lab ID:** 35780950001 **Collected:** 02/16/23 09:43 **Received:** 02/21/23 11:15 **Matrix:** Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.35 ± 0.790 (1.00) C:NA T:95%	pCi/L	03/07/23 17:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.676U ± 0.315 (0.676) C:85% T:86%	pCi/L	03/07/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.68U ± 1.11 (1.68)	pCi/L	03/08/23 14:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ENV1Q23 Resample
Pace Project No.: 35780950

QC Batch: 569313 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 35780950001 Laboratory: Pace Analytical Services - Greensburg

METHOD BLANK: 2764759 Matrix: Water

Associated Lab Samples: 35780950001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0666 ± 0.279 (0.636) C:80% T:90%	pCi/L	03/07/23 14:57	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ENV1Q23 Resample
Pace Project No.: 35780950

QC Batch: 569312 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 35780950001 Laboratory: Pace Analytical Services - Greensburg

METHOD BLANK: 2764758 Matrix: Water

Associated Lab Samples: 35780950001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.179 ± 0.351 (0.642) C:NA T:86%	pCi/L	03/07/23 17:08	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: ENV1Q23 Resample

Pace Project No.: 35780950

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

U Compound was analyzed for but not detected.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ENV1Q23 Resample
 Pace Project No.: 35780950

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35780950001	1Q23-LF-1	EPA 903.1	569312		
35780950001	1Q23-LF-1	EPA 904.0	569313		
35780950001	1Q23-LF-1	Total Radium Calculation	572419		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.

WO# : 35780950



ODY Analytical Request Document

3 LEGAL DOCUMENT - Complete all relevant fields

Customer Name/Address

Address: 10001 NW 13th St.
Gainesville, FL 32653

PO#4510057587

Report To: Jeff Boudreau

Email To: boudreaujp@gru.com

Copy To:

Site Collection Info/Address:
Deerhaven Generating StationCustomer Project Name/Number:
ENV1Q23 Resample

Phone: 352-393-6346

Site/Facility ID #: 35-000113 / DEELAB

Email: boudreaujp@gru.com

Purchase Order #: 4510057587

DW FWS ID #:

Collected By (print):
K MORRISON

Quote #:

DW Location Code:

Collected By [signature]:
Jeffrey Morrison

Turnaround Date Required:

Normal

Time Zone Collected:

FL / Gainesville

[] PT [] MT [] CT [] ET

Compliance Monitoring?

[] Yes [] No

Field Filtered (if applicable):

[] Yes [] No

Analysis:

(Expedite Charges Apply)

Rush: [] Same Day [] Next Day

[] 2 Day [] 3 Day [] 4 Day [] 5 Day

(Expedite Charges Apply)

Product (P), Soil/Solid (SL), Oil (OI), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW),

Product (P), Soil/Solid (SL), Oil (OI), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID

Matrix *

Comp /

Collected (or

Composite Start)

Composite End

Res

of

Ctns

Ctns

Date

Time

DC# Title: ENV-FRM-0R1-0093 Sample Condition Upon Receipt Form

Version: 3 | Effective Date: 12/29/2021 | Issued by: Ornmond Beach

Face

Project Manager: PM: JSB Due Date: 03/09/23

Project Manager:
Client:
Label:
Delivery:
pH:
Date: 2/21/23 Time: Initials: *LMW*

Date and initials of person:
Examining contents:
Label:
DAE

Sample Condition Upon Receipt Form (SCUR)

Comments/Resolution (use back for additional comments):

Chain of Custody Filed Out	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Comments:
Relinquished Signature & Sampler Name COC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples Arrived Within Hold Time	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Rush TAT requested on COC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers intact	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Sample Labels match COC (sample IDs & date/time of collection)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Preservation Information	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing acid/base preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Explanations: Vials, Microbiology, O&G, PAs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Compliance with EPA recommendation:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Date: _____ Lot #/Trace #: _____ Time: _____ Initials: _____		
Hazardous in VOA Vials? (>6mm):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Tip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

Billing: Recipient Sender Third Party Credit Card Unknown
 Shipping Method: First Overnight Priority Overnight Standard Overnight Ground International Priority
 Courier: FedEx UPS USPS Client Commercial Pace Other
 Recheck for DOT-C (Visual) (Correction Factor) (Actual) Time: Initials: *8176 0938 2986*
 Cooler #1 Temp.:C (Visual) (Correction Factor) (Actual) Samples on ice, cooling process has begun
 Cooler #2 Temp.:C (Visual) (Correction Factor) (Actual) Samples on ice, cooling process has begun
 Cooler #3 Temp.:C (Visual) (Correction Factor) (Actual) Samples on ice, cooling process has begun
 Cooler #4 Temp.:C (Visual) (Correction Factor) (Actual) Samples on ice, cooling process has begun
 Cooler #5 Temp.:C (Visual) (Correction Factor) (Actual) Samples on ice, cooling process has begun
 Cooler #6 Temp.:C (Visual) (Correction Factor) (Actual) Samples on ice, cooling process has begun
 Shipping Material: Bubble Wrap Bubble Bags None Yes No Ice: Wet Blue Melted None
 Chain of Custody Present: Yes No N/A Shored Date: _____ Qty: _____
 Samples shored to lab (if Yes, complete) Shored Time: _____



3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

March 09, 2023

Jeff Boudreau
Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

RE: Environmental - Deerhaven Monitoring Wells

Enclosed are the results of analyses for samples received by the laboratory on 1/9/2023. If you have any questions concerning this report, please feel free to contact me.

Please note that all results were determined in accordance with NELAP requirements. All data is subject to a degree of uncertainty. Kanapaha Lab uncertainty is based upon LCS quality control statistics.

Sincerely,

Jaclyn M Dihos
Laboratory Supervisor



Kanapaha Laboratory

3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
K23A020-01	R1T6 (MWD-1-6)	Groundwater	01/09/2023 12:18	01/10/2023 07:48
K23A020-02	R2T1 (MWB-2-1)	Groundwater	01/08/2023 15:39	01/09/2023 08:01
K23A020-03	R3T7 (MWI-3-7)	Groundwater	01/09/2023 14:23	01/10/2023 07:48
K23A020-04	R4T5B (MWI-4-5)	Groundwater	01/08/2023 10:24	01/09/2023 08:01
K23A020-05	R6T1B (MWD-6-1)	Groundwater	01/08/2023 09:24	01/09/2023 08:01
K23A020-06	R6T4B (MWI-6-4)	Groundwater	01/08/2023 16:22	01/09/2023 08:01
K23A020-07	R6T8B (MWI-6-8)	Groundwater	01/09/2023 09:19	01/10/2023 07:48
K23A020-08	R6T12 (MWD-6-12)	Groundwater	01/12/2023 08:30	01/12/2023 14:06
K23A020-09	R8T10 (MWC-8-10)	Groundwater	01/12/2023 10:10	01/12/2023 14:06
K23A020-10	R9T5B (MWI-9-5)	Groundwater	01/09/2023 15:06	01/10/2023 07:48
K23A020-11	R10T8 (MWC-10-8)	Groundwater	01/11/2023 13:14	01/12/2023 09:20
K23A020-12	R11T4B (MWC-11-4)	Groundwater	01/11/2023 12:18	01/12/2023 09:20
K23A020-13	DEEP-1 (MWC-DEEP)	Groundwater	01/11/2023 14:10	01/12/2023 09:20
K23A020-14	EBLANK1	Water	01/10/2023 08:17	01/12/2023 09:20
K23A020-15	BARNSTEAD	Water	01/08/2023 07:44	01/09/2023 08:01



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Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

R4T5B (MWI-4-5)

K23A020-04 (Groundwater, Grab)

Collected: 01/08/2023 10:24 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Aluminum	82.7	5.0	20.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Arsenic	3.3 I	2.5	10.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Barium	10.7	0.2	0.8	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Calcium	104	0.10	0.40	mg/L	1	01/31/2023	02/02/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Copper	1.5 U	1.5	6.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Iron	20000	42.0	168	ug/L	10	01/31/2023	02/02/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Magnesium	32.6	0.01	0.04	mg/L	1	01/31/2023	02/02/2023	EPA 200.7
Manganese	106	1.0	4.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Nickel	1.0 U	1.0	4.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Silver	0.6 U, J(L1)	0.6	2.4	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Strontium	93.7	0.3	1.2	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Vanadium	3.0 U	3.0	12.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Zinc	2.1 U	2.1	8.4	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/24/2023	01/24/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Color	68	10	40	Color Units	2	01/09/2023	01/09/2023	SM 2120B
Total Dissolved Solids	450	10	40	mg/L	1	01/10/2023	01/10/2023	SM 2540C
TSS	1 U	1	4	mg/L	1	01/10/2023	01/10/2023	SM 2540D



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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

R6T4B (MWI-6-4)
K23A020-06 (Groundwater, Grab)
Collected: 01/08/2023 4:22 pm

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Aluminum	79.6	5.0	20.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Arsenic	2.5 U	2.5	10.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Barium	26.4	0.2	0.8	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Calcium	46.9	0.10	0.40	mg/L	1	01/31/2023	02/02/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Copper	1.5 U	1.5	6.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Iron	1280	4.2	16.8	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Magnesium	8.23	0.01	0.04	mg/L	1	01/31/2023	02/02/2023	EPA 200.7
Manganese	48.2	1.0	4.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Nickel	5.1	1.0	4.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Silver	0.6 U, J(L1)	0.6	2.4	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Strontium	103	0.3	1.2	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Vanadium	20.3	3.0	12.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Zinc	2.6 I	2.1	8.4	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/24/2023	01/24/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Color	28	5	20	Color Units	1	01/09/2023	01/09/2023	SM 2120B
Total Dissolved Solids	360	10	40	mg/L	1	01/10/2023	01/10/2023	SM 2540C
TSS	1 U	1	4	mg/L	1	01/10/2023	01/10/2023	SM 2540D



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Deerhaven Laboratory
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Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

EBLANK1

K23A020-14 (Water, Grab)

Collected: 01/10/2023 8:17 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Aluminum	5.0 U	5.0	20.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Arsenic	2.5 U	2.5	10.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Barium	0.2 U	0.2	0.8	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Calcium	0.10 U	0.10	0.40	mg/L	1	01/31/2023	02/02/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Copper	1.5 U	1.5	6.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Iron	4.2 U	4.2	16.8	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Magnesium	0.01 U	0.01	0.04	mg/L	1	01/31/2023	02/02/2023	EPA 200.7
Manganese	1.0 U	1.0	4.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Nickel	1.0 U	1.0	4.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Silver	0.6 U, J(L1)	0.6	2.4	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Strontium	0.3 U	0.3	1.2	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Vanadium	3.0 U	3.0	12.0	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Zinc	2.3 I	2.1	8.4	ug/L	1	01/31/2023	02/02/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/24/2023	01/24/2023	EPA 245.1



Kanapaha Laboratory

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Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23A153 - MERCURY

Blank (B23A153-BLK1)

Prepared & Analyzed: 1/24/2023

Mercury	0.100 U	0.100	0.400	ug/L
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LCS (B23A153-BS1)

Prepared & Analyzed: 1/24/2023

Mercury	1.99	0.100	0.400	ug/L	2.00	99.7	90-110
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Duplicate (B23A153-DUP1)

Source: K23A020-03

Prepared & Analyzed: 1/24/2023

Mercury	0.100 U	0.100	0.400	ug/L	ND	NR
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Duplicate (B23A153-DUP2)

Source: K23A020-12

Prepared & Analyzed: 1/24/2023

Mercury	0.100 U	0.100	0.400	ug/L	ND	NR
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Matrix Spike (B23A153-MS1)

Source: K23A020-03

Prepared & Analyzed: 1/24/2023

Mercury	2.02	0.100	0.400	ug/L	2.00	ND	101	90-110
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Matrix Spike (B23A153-MS2)

Source: K23A020-12

Prepared & Analyzed: 1/24/2023

Mercury	1.94	0.100	0.400	ug/L	2.00	ND	96.9	90-110
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Batch B23A198 - EPA 200.7

Blank (B23A198-BLK1)

Prepared: 1/31/2023 Analyzed: 2/2/2023

Silver	0.6 U	0.6	2.4	ug/L
Aluminum	5.0 U	5.0	20.0	ug/L
Lead	3.0 U	3.0	12.0	ug/L
Nickel	1.0 U	1.0	4.0	ug/L
Chromium	1.2 U	1.2	4.8	ug/L
Molybdenum	2.5 U	2.5	10.0	ug/L
Magnesium	0.01 U	0.01	0.04	mg/L
Cobalt	1.0 U	1.0	4.0	ug/L
Iron	4.2 U	4.2	16.8	ug/L
Copper	1.5 U	1.5	6.0	ug/L
Selenium	4.0 U	4.0	16.0	ug/L
Beryllium	0.10 U	0.10	0.40	ug/L
Manganese	1.0 U	1.0	4.0	ug/L
Zinc	2.1 U	2.1	8.4	ug/L
Cadmium	0.3 U	0.3	1.2	ug/L
Vanadium	3.0 U	3.0	12.0	ug/L
Arsenic	2.5 U	2.5	10.0	ug/L
Strontium	0.3 U	0.3	1.2	ug/L
Barium	0.2 U	0.2	0.8	ug/L
Calcium	0.10 U	0.10	0.40	mg/L



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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
---------	--------	------	-----	-----	-------	-------------	---------------	------	--------------	-----	-----------

Batch B23A198 - EPA 200.7 (Continued)

Blank (B23A198-BLK1)

Prepared: 1/31/2023 Analyzed: 2/2/2023

LCS (B23A198-BS1)

Prepared: 1/31/2023 Analyzed: 2/2/2023

Barium	106		ug/L	100		106	90-110
Magnesium	26.1		mg/L	24.6		106	90-110
Copper	107		ug/L	99.8		107	90-110
Calcium	25.9		mg/L	24.7		105	90-110
Arsenic	103		ug/L	100		103	90-110
Cadmium	106		ug/L	100		106	90-110
Aluminum	106		ug/L	100		106	90-110
Manganese	105		ug/L	101		104	90-110
Molybdenum	105		ug/L	99.4		106	90-110
Nickel	106		ug/L	101		105	90-110
Beryllium	107		ug/L	101		106	90-110
Chromium	105		ug/L	99.9		105	90-110
Lead	104		ug/L	101		103	90-110
Cobalt	106		ug/L	99.6		106	90-110
Strontium	106		ug/L	100		106	90-110
Zinc	103		ug/L	100		103	90-110
Iron	105		ug/L	101		104	90-110
Silver	55.7J		ug/L	50.0		111	90-110
Selenium	94.2		ug/L	98.6		95.5	90-110
Vanadium	106		ug/L	99.5		107	90-110

Duplicate (B23A198-DUP1)

Source: K23A020-05

Prepared: 1/31/2023 Analyzed: 2/2/2023

Molybdenum	2.5 U	2.5	10.0	ug/L	ND		NR
Nickel	1.7I	1.0	4.0	ug/L	1.9		8.56
Silver	0.6 U	0.6	2.4	ug/L	ND		NR
Zinc	5.2I	2.1	8.4	ug/L	5.2		0.586
Selenium	4.0 U	4.0	16.0	ug/L	ND		17.9
Strontium	68.6	0.3	1.2	ug/L	68.9		0.254
Manganese	2.7I	1.0	4.0	ug/L	2.7		0.881
Chromium	1.2 U	1.2	4.8	ug/L	ND		NR
Aluminum	163	5.0	20.0	ug/L	164		0.392
Arsenic	2.5 U	2.5	10.0	ug/L	ND		NR
Barium	25.9	0.2	0.8	ug/L	25.9		0.104
Beryllium	0.10 U	0.10	0.40	ug/L	ND		27.4
Cadmium	0.3 U	0.3	1.2	ug/L	ND		NR
Vanadium	3.0 U	3.0	12.0	ug/L	ND		0.178
Calcium	9.34	0.10	0.40	mg/L	9.34		0.0530
Magnesium	9.88	0.01	0.04	mg/L	9.98		0.698
Cobalt	1.0 U	1.0	4.0	ug/L	ND		3.24
Copper	1.5 U	1.5	6.0	ug/L	ND		NR
Iron	452	4.2	16.8	ug/L	454		0.323

Kanapaha Laboratory

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Kanapaha Laboratory

3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23A198 - EPA 200.7 (Continued)

Duplicate (B23A198-DUP1) **Source: K23A020-05** Prepared: 1/31/2023 Analyzed: 2/2/2023

Lead	3.0 U	3.0	12.0	ug/L	ND	0.148
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Duplicate (B23A198-DUP2) **Source: K23A020-13** Prepared: 1/31/2023 Analyzed: 2/2/2023

Magnesium	22.0	0.01	0.04	mg/L	22.1	0.109
Manganese	7.6	1.0	4.0	ug/L	7.6	0.120
Molybdenum	2.5 U	2.5	10.0	ug/L	ND	7.74
Nickel	1.0 U	1.0	4.0	ug/L	ND	14.2
Iron	16.1 I	4.2	16.8	ug/L	18.1	8.24
Copper	1.5 U	1.5	6.0	ug/L	ND	32.5
Cobalt	1.0 U	1.0	4.0	ug/L	ND	NR
Lead	3.0 U	3.0	12.0	ug/L	ND	29.1
Chromium	1.2 U	1.2	4.8	ug/L	ND	NR
Calcium	62.0	0.10	0.40	mg/L	62.1	0.0821
Cadmium	0.3 U	0.3	1.2	ug/L	ND	0.00
Beryllium	0.10 U	0.10	0.40	ug/L	ND	15.7
Silver	0.6 U	0.6	2.4	ug/L	ND	NR
Arsenic	2.5 U	2.5	10.0	ug/L	ND	5.74
Strontium	1210	0.3	1.2	ug/L	1200	0.453
Aluminum	5.0 U	5.0	20.0	ug/L	ND	7.60
Barium	13.4	0.2	0.8	ug/L	13.4	0.147
Vanadium	3.0 U	3.0	12.0	ug/L	ND	NR
Zinc	2.6 I	2.1	8.4	ug/L	2.4	4.97
Selenium	4.0 U	4.0	16.0	ug/L	ND	19.0

Matrix Spike (B23A198-MS1) **Source: K23A020-05** Prepared: 1/31/2023 Analyzed: 2/2/2023

Chromium	213	1.2	4.8	ug/L	200	ND	106	90-110
Manganese	214	1.0	4.0	ug/L	200	2.7	106	90-110
Zinc	204	2.1	8.4	ug/L	200	5.2	99.4	90-110
Lead	208	3.0	12.0	ug/L	200	ND	104	90-110
Calcium	36.1	0.10	0.40	mg/L	25.0	9.34	107	90-110
Iron	1510	4.2	16.8	ug/L	1000	454	106	90-110
Arsenic	205	2.5	10.0	ug/L	200	ND	103	90-110
Copper	209	1.5	6.0	ug/L	200	ND	105	90-110
Aluminum	661	5.0	20.0	ug/L	500	164	99.4	90-110
Magnesium	35.9	0.01	0.04	mg/L	25.0	9.98	104	90-110
Molybdenum	551	2.5	10.0	ug/L	500	ND	110	90-110
Selenium	45.9	4.0	16.0	ug/L	50.0	ND	91.8	90-110
Nickel	215	1.0	4.0	ug/L	200	1.9	106	90-110
Cobalt	217	1.0	4.0	ug/L	200	ND	108	90-110
Strontium	611	0.3	1.2	ug/L	500	68.9	109	90-110
Beryllium	207	0.10	0.40	ug/L	200	ND	104	90-110
Barium	560	0.2	0.8	ug/L	500	25.9	107	90-110
Silver	50.8	0.6	2.4	ug/L	50.0	ND	102	90-110



Kanapaha Laboratory

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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23A198 - EPA 200.7 (Continued)

Matrix Spike (B23A198-MS1) **Source: K23A020-05** Prepared: 1/31/2023 Analyzed: 2/2/2023

Vanadium	521	3.0	12.0	ug/L	500	ND	104	90-110
Cadmium	52.5	0.3	1.2	ug/L	50.0	ND	105	90-110

Matrix Spike (B23A198-MS2) **Source: K23A020-13** Prepared: 1/31/2023 Analyzed: 2/2/2023

Magnesium	47.7	0.01	0.04	mg/L	25.0	22.1	102	90-110
Aluminum	487	5.0	20.0	ug/L	500	ND	97.4	90-110
Molybdenum	543	2.5	10.0	ug/L	500	ND	109	90-110
Strontium	1720	0.3	1.2	ug/L	500	1200	103	90-110
Selenium	44.9 J	4.0	16.0	ug/L	50.0	ND	89.8	90-110
Manganese	215	1.0	4.0	ug/L	200	7.6	104	90-110
Beryllium	206	0.10	0.40	ug/L	200	ND	103	90-110
Zinc	196	2.1	8.4	ug/L	200	2.4	96.9	90-110
Chromium	210	1.2	4.8	ug/L	200	ND	105	90-110
Cobalt	210	1.0	4.0	ug/L	200	ND	105	90-110
Copper	210	1.5	6.0	ug/L	200	ND	105	90-110
Nickel	208	1.0	4.0	ug/L	200	ND	104	90-110
Arsenic	203	2.5	10.0	ug/L	200	ND	102	90-110
Barium	537	0.2	0.8	ug/L	500	13.4	105	90-110
Calcium	88.0	0.10	0.40	mg/L	25.0	62.1	104	90-110
Iron	1050	4.2	16.8	ug/L	1000	18.1	103	90-110
Cadmium	51.1	0.3	1.2	ug/L	50.0	ND	102	90-110
Silver	51.0	0.6	2.4	ug/L	50.0	ND	102	90-110
Vanadium	515	3.0	12.0	ug/L	500	ND	103	90-110
Lead	207	3.0	12.0	ug/L	200	ND	104	90-110



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Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

Wet Chemistry by APHA/EPA Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23A047 - DEFAULT PREP - Wet Chem

Duplicate (B23A047-DUP1)	Source: K23A020-04					Prepared & Analyzed: 1/9/2023				
Color	68		10	40	Color Units	68			0.00	

Reference (B23A047-SRM1)						Prepared & Analyzed: 1/9/2023				
Color	31		5	20	Color Units	30.0	103	90-110	0.00	

Reference (B23A047-SRM2)						Prepared & Analyzed: 1/9/2023				
Color	31		5	20	Color Units	30.0	103	90-110	0.00	

Batch B23A061 - DEFAULT PREP - Wet Chem

Duplicate (B23A061-DUP1)	Source: K23A020-03					Prepared & Analyzed: 1/10/2023				
Color	121		5	20	Color Units	12			0.00	

Reference (B23A061-SRM1)						Prepared & Analyzed: 1/10/2023				
Color	31		5	20	Color Units	30.0	103	90-110	0.00	

Reference (B23A061-SRM2)						Prepared & Analyzed: 1/10/2023				
Color	31		5	20	Color Units	30.0	103	90-110	0.00	

Batch B23A065 - DEFAULT PREP - Wet Chem

Blank (B23A065-BLK1)						Prepared & Analyzed: 1/10/2023				
TSS	1U		1	4	mg/L	mg/L			0.00	

LCS (B23A065-BS1)						Prepared & Analyzed: 1/10/2023				
TSS	92		mg/L	100	92.0	77.1-110			0.00	

Duplicate (B23A065-DUP1)	Source: K23A026-01					Prepared & Analyzed: 1/10/2023				
TSS	44		1	4	mg/L	42			3.29	

Duplicate (B23A065-DUP2)	Source: K23A020-01					Prepared & Analyzed: 1/10/2023				
TSS	21		1	4	mg/L	2			3.29	

Batch B23A069 - DEFAULT PREP - Wet Chem

Blank (B23A069-BLK1)						Prepared & Analyzed: 1/10/2023				
Total Dissolved Solids	10U		10	40	mg/L	mg/L			0.00	

Kanapaha Laboratory

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Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

Wet Chemistry by APHA/EPA Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23A069 - DEFAULT PREP - Wet Chem (Continued)

Blank (B23A069-BLK1) Prepared & Analyzed: 1/10/2023

Duplicate (B23A069-DUP1) **Source: K23A020-01** Prepared & Analyzed: 1/10/2023

Total Dissolved Solids	298	10	40	mg/L	295	0.715
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Reference (B23A069-SRM1) Prepared & Analyzed: 1/10/2023

Total Dissolved Solids	237			mg/L	240	98.8	90-110
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Batch B23A085 - DEFAULT PREP - Wet Chem

Duplicate (B23A085-DUP1) **Source: K23A020-11** Prepared & Analyzed: 1/12/2023

Color	5 U	5	20	Color Units	ND	0.00
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Reference (B23A085-SRM1) Prepared & Analyzed: 1/12/2023

Color	31	5	20	Color Units	30.0	103	90-110	0.00
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Reference (B23A085-SRM2) Prepared & Analyzed: 1/12/2023

Color	31	5	20	Color Units	30.0	103	90-110	0.00
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Batch B23A087 - DEFAULT PREP - Wet Chem

Duplicate (B23A087-DUP1) **Source: K23A020-09** Prepared & Analyzed: 1/12/2023

Color	125	25	100	Color Units	125	0.00
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Reference (B23A087-SRM1) Prepared & Analyzed: 1/12/2023

Color	31	5	20	Color Units	30.0	103	90-110	0.00
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Reference (B23A087-SRM2) Prepared & Analyzed: 1/12/2023

Color	31	5	20	Color Units	30.0	103	90-110	0.00
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Batch B23A090 - DEFAULT PREP - Wet Chem

Blank (B23A090-BLK1) Prepared & Analyzed: 1/13/2023

TSS	1 U	1	4	mg/L
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Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

Wet Chemistry by APHA/EPA Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23A090 - DEFAULT PREP - Wet Chem (Continued)

LCS (B23A090-BS1)							Prepared & Analyzed: 1/13/2023			
TSS	101				mg/L	100		101	77.1-110	

Duplicate (B23A090-DUP1)	Source: K23A020-09						Prepared & Analyzed: 1/13/2023			
TSS	1 U		1	4	mg/L		ND		NR	

Batch B23A114 - DEFAULT PREP - Wet Chem

Blank (B23A114-BLK1)							Prepared & Analyzed: 1/17/2023			
Total Dissolved Solids	10 U		10	40	mg/L					

Duplicate (B23A114-DUP1)	Source: K23A037-01						Prepared & Analyzed: 1/17/2023			
Total Dissolved Solids	283		10	40	mg/L		275		2.03	

Reference (B23A114-SRM1)							Prepared & Analyzed: 1/17/2023			
Total Dissolved Solids	218			mg/L	240		90.8	90-110		

Batch B23A115 - DEFAULT PREP - Wet Chem

Blank (B23A115-BLK1)							Prepared & Analyzed: 1/18/2023			
Total Dissolved Solids	10 U		10	40	mg/L					

Duplicate (B23A115-DUP1)	Source: K23A020-08						Prepared & Analyzed: 1/18/2023			
Total Dissolved Solids	119		10	40	mg/L		119		0.00	

Reference (B23A115-SRM1)							Prepared & Analyzed: 1/18/2023			
Total Dissolved Solids	238			mg/L	240		99.2	90-110		



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Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/09/2023 17:11

Notes and Definitions

<u>Qualifier</u>	<u>Description</u>
J	Estimated value. Quality control associated with the reported value failed to meet the established quality control criteria.
NR	Not Reported
RSD	Relative Standard Deviation
U	Compound was analyzed for but not detected
N	Presumptive evidence of presence of material
L	Off-scale high. Actual value is known to be greater than value given
I	The reported value is between the laboratory MDL and the laboratory PQL
V	Analyte was detected in both the sample and the associated method blank
J(L1)	Estimated value. Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
J(M2)	Estimated value. Matrix spike recovery was below QC limits, suggesting a negative matrix interference. Batch accepted based on laboratory control sample (LCS) recovery.

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:
I = Ice
N = Nitric Acid
S= Sulfuric Acid

Batch:	ENV1Q23				Container Preservation Type											
	CD, KM				N	N	I	I	I	I	N	N	N	N	I	I
Sample Collector(s):	Analysis Requested															
	Sample ID	Matrix	Collection Date/Time	# of Ctns	Metals by 200.7 (Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Sr, V, Zn)	Mercury by 245.1	Color by 2120B	TSS by 2540D	TDS by 2540C	Alkalinity	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Fe, Pb, Mg, Mo, Se, Total Hardness)	Metals by 200.7 (Mn, Mo, Ni, Na, Zn)	Chloride by 4500-Cl-C	Sulfate by 4500-SO4-E	Sample ID
1Q23-R2T1	GW	1/8/2023 / 15:39	2	X	X	X	X	X	X							-02
1Q23-R4T5	GW	1/8/2023 / 10:24	2	X	X	X	X	X	X							-04
1Q23-R6T1	GW	1/8/2023 / 9:24	2	X	X	X	X	X	X							-05
1Q23-R6T4	GW	1/8/2023 / 16:22	2	X	X	X	X	X	X							-06
1Q23-Barnstead	GW	1/8/2023 / 7:44	1	X												-15

K. Brulefield

1/9/23 @ 0801

Released By

Date/Time

John M. Debn

01/07/23 @ 0801

Received By

Physical samples rec'd @ 3.8°C

Released By

Date/Time

Received By

Work Order # K23A020

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:
I = Ice
N = Nitric Acid
S= Sulfuric Acid

Page 2 of 4

Batch:	ENV1Q23				Container Preservation Type											
					N	N	I	I	I	I	N	N	N	N	I	I
Sample Collector(s):	JC, KM				Analysis Requested											
	Sample ID	Matrix	Collection Date/Time	# of Ctns	Metals by 200.7 (Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Sr, V, Zn)	Mercury by 245.1	Color by 2120B	TSS by 2540D	TDS by 2540C	Alkalinity	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Fe, Pb, Mg, Mo, Se, Total Hardness)	Metals by 200.7 (Mn, Mo, Ni, Na, Zn)	Chloride by 4500-Cl-C	Sulfate by 4500-SO4-E	Sample ID
1Q23-R1T6	GW	1-9-23 / 12:18	2	X	X	X	X	X	X							-01
1Q23-R3T7	GW	1-9-23 / 14:23	2	X	X	X	X	X	X							-03
1Q23-R6T8	GW	1-9-23 / 9:19	2	X	X	X	X	X	X							-07
1Q23-R9T5	GW	1-9-23 / 15:06	2	X	X	X	X	X	X							-10

R. Braufield

Released By

1-10-23 / 07:40

Date/Time

Joh M. Doh

Received By

01/10/23 @ 0748

(Physical Samples rec'd @ 26°C)

Released By

Date/Time

Received By

Work Order # K23A020

CHAIN OF CUSTODY - Analytical Request Document

Page 3 of 4

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:

I = Ice

N = Nitric Acid

S= Sulfuric Acid

Batch:	ENV1Q23				Container Preservation Type											
	CD, KM				N	N	I	I	I	I	N	N	N	N	I	I
Sample Collector(s):																
Sample ID	Matrix	Collection Date/Time	# of Ctns		Metals by 200.7 (Al, As, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Sr, V, Zn)	Mercury by 245.1	Color by 2120B	TSS by 2540D	TDS by 2540C	Alkalinity	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Fe, Pb, Mg, Mo, Se, Total Hardness)	Metals by 200.7 (Mn, Mo, Ni, Na, Zn)	Chloride by 4500-Cl-C	Sulfate by 4500-SO4-E	Sample ID
1Q23-R10T8	GW	1-11-23 / 13:14	2	X	X X X X											-11
1Q23-R11T4	GW	1-11-23 / 12:18	2	X	X X X X											-12
1Q23-DEEP	GW	1-11-23 / 14:10	2	X	X X X X	X										-13
1Q23-EBLANK1	GW	1-10-23 / 08:17	1	X												-14
1Q23-SIS-1	GW	1-10-23 / 09:19	2			X				X	X					
1Q23-SIS-2	GW	1-11-23 / 11:22	2			X				X	X					
1Q23-SIS-3	GW	1-11-23 / 09:16	2			X				X	X					
1Q23-SIS-4	GW	1-11-23 / 10:27	2			X				X	X					
1Q23-LF-1	GW	1-10-23 / 09:59	2			X				X	X					
1Q23-LF-2	GW	1-10-23 / 10:31	2			X				X	X					
1Q23-LF-3	GW	1-10-23 / 11:12	2			X				X	X					
1Q23-LF-4	GW	1-10-23 / 12:34	2			X				X	X					
1Q23-LF-5	GW	1-10-23 / 13:38	2			X				X	X					
1Q23-LF-6	GW	1-10-23 / 14:38	2			X				X	X					
1Q23-EBLANK2	GW	1-11-23 / 10:37	1			X					X					

K. Brakefield

Released By

1/12/23 @ 0920

Date/Time

Received By

01/12/23 0920

Physical samples recd @ 26°C

Released By

Date/Time

Received By

Work Order #K23A020

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:

I = Ice

N = Nitric Acid

S= Sulfuric Acid

Batch:	ENV1Q23				Container Preservation Type											
					N	N	I	I	I	I	N	N	N	N	I	I
Sample Collector(s):	CD, KM				Analysis Requested											
	Sample ID	Matrix	Collection Date/Time	# of Ctns	Metals by 200.7 (Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Sr, V, Zn)	Mercury by 245.1	Color by 2120B	TSS by 2540D	TDS by 2540C	Alkalinity	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Fe, Pb, Mg, Mo, Se, Total Hardness)	Metals by 200.7 (Mn, Mo, Ni, Na, Zn)	Chloride by 4500-Cl-C	Sulfate by 4500-SO4-E	Sample ID -08 -09
1Q23-R6T12	GW	1-12-23 / 8:30	2	X	X X X X											
1Q23-R8T10	GW	1-12-23 / 10:10	2	X	X X X X											
1Q23-SLF	W	1-12-23 / 11:11	2										X	X	X	

Blakely Deen

Released By

1/12/23 @ 1406

Date/Time

Joh M. Doherty

01/12/23 1406

Received By

*Physical Samples and SLF 01/18/24
rec'd at 26 °C*

Released By

Date/Time

Received By

Work Order # K23A020



Kanapaha Laboratory

3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

March 20, 2023

Jeff Boudreau
Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

RE: Environmental - Deerhaven CCR Wells

Enclosed are the results of analyses for samples received by the laboratory on 1/12/2023. If you have any questions concerning this report, please feel free to contact me.

Please note that all results were determined in accordance with NELAP requirements. All data is subject to a degree of uncertainty. Kanapaha Lab uncertainty is based upon LCS quality control statistics.

Sincerely,

Jaclyn M Dilhos
Laboratory Supervisor



Kanapaha Laboratory

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Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
K23A037-01	SIS-1	Groundwater	01/10/2023 09:19	01/12/2023 09:20
K23A037-02	SIS-2	Groundwater	01/11/2023 11:22	01/12/2023 09:20
K23A037-03	SIS-3	Groundwater	01/11/2023 09:16	01/12/2023 09:20
K23A037-04	SIS-4	Groundwater	01/11/2023 10:27	01/12/2023 09:20
K23A037-05	LF-1	Groundwater	01/10/2023 09:59	01/12/2023 09:20
K23A037-06	LF-2	Groundwater	01/10/2023 10:31	01/12/2023 09:20
K23A037-07	LF-3	Groundwater	01/10/2023 11:12	01/12/2023 09:20
K23A037-08	LF-4	Groundwater	01/10/2023 12:34	01/12/2023 09:20
K23A037-09	LF-5	Groundwater	01/10/2023 13:38	01/12/2023 09:20
K23A037-10	LF-6	Groundwater	01/10/2023 14:38	01/12/2023 09:20
K23A037-11	EBLANK2	Groundwater	01/11/2023 10:37	01/12/2023 09:20



Kanapaha Laboratory

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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

SIS-1

K23A037-01 (Groundwater, Grab)

Collected: 01/10/2023 9:19 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	15.6	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	65.9	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	275	10	40	mg/L	1	01/17/2023	01/17/2023	SM 2540C
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Kanapaha Laboratory

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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

SIS-2

K23A037-02 (Groundwater, Grab)

Collected: 01/11/2023 11:22 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	6.8	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	97.3	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	2.6 I	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	393	10	40	mg/L	1	01/17/2023	01/17/2023	SM 2540C
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Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

SIS-3

K23A037-03 (Groundwater, Grab)

Collected: 01/11/2023 9:16 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	10.7	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	64.7	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	281	10	40	mg/L	1	01/17/2023	01/17/2023	SM 2540C
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Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

SIS-4

K23A037-04 (Groundwater, Grab)

Collected: 01/11/2023 10:27 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	40.9	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	89.2	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	2.1 I	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	1.7 I	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	663	10	40	mg/L	1	01/17/2023	01/17/2023	SM 2540C
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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

LF-1

K23A037-05 (Groundwater, Grab)

Collected: 01/10/2023 9:59 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	136	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	25.5	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	1.4 I	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	4.4 I	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	145	10	40	mg/L	1	01/12/2023	01/12/2023	SM 2540C
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Kanapaha Laboratory

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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

LF-2

K23A037-06 (Groundwater, Grab)

Collected: 01/10/2023 10:31 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	42.0	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.13 I	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	22.9	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	3.5 I	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	5.5	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	221	10	40	mg/L	1	01/12/2023	01/12/2023	SM 2540C
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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

LF-3

K23A037-07 (Groundwater, Grab)

Collected: 01/10/2023 11:12 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	57.8	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	19.7	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	5.5	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	419	10	40	mg/L	1	01/12/2023	01/12/2023	SM 2540C
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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

LF-4

K23A037-08 (Groundwater, Grab)

Collected: 01/10/2023 12:34 pm

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	28.0	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	14.1	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	1.6 I	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	1.2 I	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	137	10	40	mg/L	1	01/12/2023	01/12/2023	SM 2540C
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Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

LF-5

K23A037-09 (Groundwater, Grab)

Collected: 01/10/2023 1:38 pm

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	50.6	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	51.1	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	8.3	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	764	10	40	mg/L	1	01/12/2023	01/12/2023	SM 2540C
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Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

LF-6

K23A037-10 (Groundwater, Grab)

Collected: 01/10/2023 2:38 pm

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	17.3	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	48.0	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	3.0 I	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	3.7 I	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	193	10	40	mg/L	1	01/17/2023	01/17/2023	SM 2540C
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EBLANK2

K23A037-11 (Groundwater, Grab)

Collected: 01/11/2023 10:37 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Barium	0.2 U	0.2	0.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Calcium	0.10 U	0.10	0.40	mg/L	1	02/07/2023	02/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	02/07/2023	02/13/2023	EPA 200.7
Mercury	0.100 U	0.100	0.400	ug/L	1	01/26/2023	01/26/2023	EPA 245.1



Kanapaha Laboratory

3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23A174 - MERCURY

Blank (B23A174-BLK1) Prepared & Analyzed: 1/26/2023

Mercury	0.100 U	0.100	0.400	ug/L
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LCS (B23A174-BS1) Prepared & Analyzed: 1/26/2023

Mercury	2.05	0.100	0.400	ug/L	2.00	102	90-110
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Duplicate (B23A174-DUP1) Source: K23A037-01 Prepared & Analyzed: 1/26/2023

Mercury	0.100 U	0.100	0.400	ug/L	ND	NR
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Duplicate (B23A174-DUP2) Source: K23A037-09 Prepared & Analyzed: 1/26/2023

Mercury	0.100 U	0.100	0.400	ug/L	ND	58.1
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Matrix Spike (B23A174-MS1) Source: K23A037-01 Prepared & Analyzed: 1/26/2023

Mercury	2.07	0.100	0.400	ug/L	2.00	ND	104	90-110
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Matrix Spike (B23A174-MS2) Source: K23A037-09 Prepared & Analyzed: 1/26/2023

Mercury	1.98	0.100	0.400	ug/L	2.00	ND	99.0	90-110
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Batch B23B039 - EPA 200.7

Blank (B23B039-BLK1) Prepared: 2/7/2023 Analyzed: 2/13/2023

Lead	3.0 U	3.0	12.0	ug/L
Beryllium	0.10 U	0.10	0.40	ug/L
Barium	0.2 U	0.2	0.8	ug/L
Molybdenum	2.5 U	2.5	10.0	ug/L
Chromium	1.2 U	1.2	4.8	ug/L
Selenium	4.0 U	4.0	16.0	ug/L
Arsenic	2.5 U	2.5	10.0	ug/L
Cobalt	1.0 U	1.0	4.0	ug/L
Cadmium	0.3 U	0.3	1.2	ug/L
Calcium	0.10 U	0.10	0.40	mg/L

LCS (B23B039-BS1) Prepared: 2/7/2023 Analyzed: 2/13/2023

Calcium	25.4	mg/L	24.7	103	90-110
Barium	102	ug/L	100	102	90-110
Arsenic	101	ug/L	100	101	90-110
Chromium	105	ug/L	99.9	105	90-110
Beryllium	104	ug/L	101	103	90-110
Cadmium	103	ug/L	100	103	90-110
Lead	101	ug/L	101	99.9	90-110



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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike	Source	% REC	RSD		
						Level	Result	%REC	Limits	RSD	Limit

Batch B23B039 - EPA 200.7 (Continued)

LCS (B23B039-BS1)			Prepared: 2/7/2023 Analyzed: 2/13/2023		
Selenium	91.2	ug/L	98.6	92.5	90-110
Molybdenum	100	ug/L	99.4	101	90-110
Cobalt	102	ug/L	99.6	102	90-110

Duplicate (B23B039-DUP1)	Source: K23A037-03				Prepared: 2/7/2023 Analyzed: 2/13/2023	
Arsenic	2.5 U	2.5	10.0	ug/L	ND	NR
Barium	11.0	0.2	0.8	ug/L	10.7	1.81
Beryllium	0.10 U	0.10	0.40	ug/L	ND	28.3
Cadmium	0.3 U	0.3	1.2	ug/L	ND	NR
Calcium	65.8	0.10	0.40	mg/L	64.7	1.18
Chromium	1.2 U	1.2	4.8	ug/L	ND	23.7
Cobalt	1.0 U	1.0	4.0	ug/L	ND	13.6
Lead	3.0 U	3.0	12.0	ug/L	ND	23.9
Selenium	4.0 U	4.0	16.0	ug/L	ND	1.09
Molybdenum	2.5 U	2.5	10.0	ug/L	ND	3.45

Duplicate (B23B039-DUP2)	Source: K23A037-05				Prepared: 2/7/2023 Analyzed: 2/13/2023	
Cadmium	0.3 U	0.3	1.2	ug/L	ND	4.88
Beryllium	0.10 U	0.10	0.40	ug/L	ND	0.00
Chromium	1.2 U	1.2	4.8	ug/L	ND	NR
Cobalt	1.4 I	1.0	4.0	ug/L	1.4	0.358
Calcium	25.7	0.10	0.40	mg/L	25.5	0.467
Molybdenum	4.4 I	2.5	10.0	ug/L	4.4	0.739
Arsenic	2.5 U	2.5	10.0	ug/L	ND	22.3
Barium	138	0.2	0.8	ug/L	136	0.929
Selenium	4.0 U	4.0	16.0	ug/L	ND	12.4
Lead	3.0 U	3.0	12.0	ug/L	ND	11.0

Matrix Spike (B23B039-MS1)	Source: K23A037-03				Prepared: 2/7/2023			Analyzed: 2/13/2023
Molybdenum	540	2.5	10.0	ug/L	500	ND	108	90-110
Cobalt	211	1.0	4.0	ug/L	200	ND	105	90-110
Barium	533	0.2	0.8	ug/L	500	10.7	105	90-110
Selenium	48.0	4.0	16.0	ug/L	50.0	ND	95.9	90-110
Beryllium	204	0.10	0.40	ug/L	200	ND	102	90-110
Chromium	217	1.2	4.8	ug/L	200	ND	108	90-110
Cadmium	52.3	0.3	1.2	ug/L	50.0	ND	105	90-110
Calcium	91.0	0.10	0.40	mg/L	25.0	64.7	105	90-110
Lead	206	3.0	12.0	ug/L	200	ND	103	90-110
Arsenic	206	2.5	10.0	ug/L	200	ND	103	90-110

Matrix Spike (B23B039-MS2) **Source: K23A037-05** Prepared: 2/7/2023 Analyzed: 2/13/2023



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(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23B039 - EPA 200.7 (Continued)

Matrix Spike (B23B039-MS2)	Source: K23A037-05						Prepared: 2/7/2023	Analyzed: 2/13/2023	
Chromium	214		1.2	4.8	ug/L	200	ND	107	90-110
Calcium	50.2		0.10	0.40	mg/L	25.0	25.5	98.6	90-110
Beryllium	204		0.10	0.40	ug/L	200	ND	102	90-110
Cobalt	207		1.0	4.0	ug/L	200	1.4	103	90-110
Molybdenum	534		2.5	10.0	ug/L	500	4.4	106	90-110
Cadmium	51.6		0.3	1.2	ug/L	50.0	ND	103	90-110
Selenium	46.9		4.0	16.0	ug/L	50.0	ND	93.8	90-110
Barium	659		0.2	0.8	ug/L	500	136	104	90-110
Arsenic	204		2.5	10.0	ug/L	200	ND	102	90-110
Lead	202		3.0	12.0	ug/L	200	ND	101	90-110



Kanapaha Laboratory

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Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

Wet Chemistry by APHA/EPA Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23A086 - DEFAULT PREP - Wet Chem

Blank (B23A086-BLK1)						Prepared & Analyzed: 1/12/2023				
Total Dissolved Solids	10 U		10	40	mg/L					
Duplicate (B23A086-DUP1)						Prepared & Analyzed: 1/12/2023				
Total Dissolved Solids	138		10	40	mg/L	145				3.50
Reference (B23A086-SRM1)						Prepared & Analyzed: 1/12/2023				
Total Dissolved Solids	242			mg/L	240	101	90-110			

Batch B23A114 - DEFAULT PREP - Wet Chem

Blank (B23A114-BLK1)						Prepared & Analyzed: 1/17/2023				
Total Dissolved Solids	10 U		10	40	mg/L					
Duplicate (B23A114-DUP1)						Prepared & Analyzed: 1/17/2023				
Total Dissolved Solids	283		10	40	mg/L	275				2.03
Reference (B23A114-SRM1)						Prepared & Analyzed: 1/17/2023				
Total Dissolved Solids	218			mg/L	240	90.8	90-110			



Kanapaha Laboratory

3901 South West 63rd Blvd
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(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 1Q23
Project Manager: Jeff Boudreau

Reported:
03/20/2023 14:13

Notes and Definitions

<u>Qualifier</u>	<u>Description</u>
NR	Not Reported
RSD	Relative Standard Deviation
U	Compound was analyzed for but not detected
N	Presumptive evidence of presence of material
L	Off-scale high. Actual value is known to be greater than value given
I	The reported value is between the laboratory MDL and the laboratory PQL
V	Analyte was detected in both the sample and the associated method blank

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:
I = Ice
N = Nitric Acid
S= Sulfuric Acid

Page 1 of 1

Batch:	ENV1Q23				Container Preservation Type											
	CD, KM				N	N	I	I	I	I	N	N	N	N	I	I
Sample Collector(s):	Analysis Requested															
	Sample ID	Matrix	Collection Date/Time	# of Ctns	Metals by 200.7 (Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Sr, V, Zn)	Mercury by 245.1	Color by 2120B	TSS by 2540D	TDS by 2540C	Alkalinity	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Fe, Pb, Mg, Mo, Se, Total Hardness)	Metals by 200.7 (Mn, Mo, Ni, Na, Zn)	Chloride by 4500-Cl-C	Sulfate by 4500-SO4-E	Sample ID
1Q23-R10T8	GW	1-11-23 / 13:14	2	X	X X X X											-01
1Q23-R11T4	GW	1-11-23 / 12:18	2	X	X X X X											-02
1Q23-DEEP	GW	1-11-23 / 14:10	2	X	X X X X											-03
1Q23-EBLANK1	GW	1-10-23 / 08:17	1	X	X											-04
1Q23-SIS-1	GW	1-10-23 / 09:19	2		X				X		X					-05
1Q23-SIS-2	GW	1-11-23 / 11:22	2		X				X		X					-06
1Q23-SIS-3	GW	1-11-23 / 09:16	2		X				X		X					-07
1Q23-SIS-4	GW	1-11-23 / 10:27	2		X				X		X					-08
1Q23-LF-1	GW	1-10-23 / 09:59	2		X				X		X					-09
1Q23-LF-2	GW	1-10-23 / 10:31	2		X				X		X					-10
1Q23-LF-3	GW	1-10-23 / 11:12	2		X				X		X					-11
1Q23-LF-4	GW	1-10-23 / 12:34	2		X				X		X					
1Q23-LF-5	GW	1-10-23 / 13:38	2		X				X		X					
1Q23-LF-6	GW	1-10-23 / 14:38	2		X				X		X					
1Q23-EBLANK2	GW	1-11-23 / 10:37	1		X						X					

K. Brakefield

Released By

1/12/23 @ 0920

Date/Time

C. Oh

Received By

01/12/23 0920

Physical samples rec'd @ 26 °C

Released By

Date/Time

Received By

Work Order # K23A037



Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

August 23, 2023

Mr. Jeffery Boudreau
Deerhaven Lab
P.O. Box 147117, Station D38
Gainesville, FL 32614

RE: Project: ENV3Q23
Pace Project No.: 35815955

Dear Mr. Boudreau:

Enclosed are the analytical results for sample(s) received by the laboratory on July 26, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Ormond Beach
- Pace Analytical Services - Greensburg

Several of the parameters for 35815955 were received in a cooler at a temperature above 6 degrees C. These were run per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Baylor
jeff.baylor@pacelabs.com
(386)672-5668
Project Manager

Enclosures

cc: Kent Brakefield
Kimberly Morrison, Deerhaven Labs



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ENV3Q23
 Pace Project No.: 35815955

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 ANABISO/IEC 17025:2017 Rad Cert#: L24170
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 2950
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA010
 Louisiana DEQ/TNI Certification #: 04086
 Maine Certification #: 2023021
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572023-03
 New Hampshire/TNI Certification #: 297622
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-015
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: TN02867
 Texas/TNI Certification #: T104704188-22-18
 Utah/TNI Certification #: PA014572223-14
 USDA Soil Permit #: 525-23-67-77263
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad

Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174
 Alaska DEC- CS/UST/LUST
 Alabama Certification #: 41320
 Colorado Certification: FL NELAC Reciprocity
 Connecticut Certification #: PH-0216
 Delaware Certification: FL NELAC Reciprocity
 DoD-ANAB #: ADE-3199
 Florida Certification #: E83079
 Georgia Certification #: 955
 Guam Certification: FL NELAC Reciprocity
 Hawaii Certification: FL NELAC Reciprocity
 Illinois Certification #: 200068
 Indiana Certification: FL NELAC Reciprocity
 Kansas Certification #: E-10383
 Kentucky Certification #: 90050
 Louisiana Certification #: FL NELAC Reciprocity
 Louisiana Environmental Certificate #: 05007
 Maine Certification #: FL01264
 Maryland Certification: #346
 Massachusetts Certification #: M-FL1264
 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity
 Missouri Certification #: 236
 Montana Certification #: Cert 0074
 Nebraska Certification: NE-OS-28-14
 New Hampshire Certification #: 2958
 New Jersey Certification #: FL022
 New York Certification #: 11608
 North Carolina Environmental Certificate #: 667
 North Carolina Certification #: 12710
 North Dakota Certification #: R-216
 Ohio DEP 87780
 Oklahoma Certification #: D9947
 Pennsylvania Certification #: 68-00547
 Puerto Rico Certification #: FL01264
 South Carolina Certification: #96042001
 Tennessee Certification #: TN02974
 Texas Certification: FL NELAC Reciprocity
 US Virgin Islands Certification: FL NELAC Reciprocity
 Virginia Environmental Certification #: 460165
 West Virginia Certification #: 9962C
 Wisconsin Certification #: 399079670

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

CERTIFICATIONS

Project: ENV3Q23
Pace Project No.: 35815955

Pace Analytical Services Ormond Beach
Wyoming (EPA Region 8): FL NELAC Reciprocity

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ENV3Q23
Pace Project No.: 35815955

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35815955001	3Q23-R1T6	Water	07/12/23 12:54	07/26/23 11:15
35815955002	3Q23-R2T1	Water	07/10/23 12:21	07/26/23 11:15
35815955003	3Q23-R3T7	Water	07/18/23 08:10	07/26/23 11:15
35815955004	3Q23-R4T5	Water	07/12/23 08:48	07/26/23 11:15
35815955005	3Q23-R6T1	Water	07/10/23 09:07	07/26/23 11:15
35815955006	3Q23-R6T4	Water	07/12/23 10:29	07/26/23 11:15
35815955007	3Q23-R6T8	Water	07/18/23 10:34	07/26/23 11:15
35815955008	3Q23-R6T12	Water	07/18/23 14:24	07/26/23 11:15
35815955009	3Q23-R8T10	Water	07/19/23 12:09	07/26/23 11:15
35815955010	3Q23R9T5	Water	07/18/23 09:25	07/26/23 11:15
35815955011	3Q23-R10T8	Water	07/19/23 10:04	07/26/23 11:15
35815955012	3Q23-R11T4	Water	07/19/23 08:50	07/26/23 11:15
35815955013	3Q23-DEEP	Water	07/18/23 13:36	07/26/23 11:15
35815955014	3Q23-EBLANK1	Water	07/14/23 10:26	07/26/23 11:15
35815955015	3Q23-SIS-1	Water	07/13/23 10:00	07/26/23 11:15
35815955016	3Q23-SIS-2	Water	07/13/23 11:08	07/26/23 11:15
35815955017	3Q23-SIS-3	Water	07/13/23 13:10	07/26/23 11:15
35815955018	3Q23-SIS-4	Water	07/14/23 10:00	07/26/23 11:15
35815955019	3Q23-LF-1	Water	07/13/23 08:42	07/26/23 11:15
35815955020	3Q23-LF-2	Water	07/14/23 11:39	07/26/23 11:15
35815955021	3Q23-LF-3	Water	07/17/23 08:11	07/26/23 11:15
35815955022	3Q23-LF-4	Water	07/17/23 09:21	07/26/23 11:15
35815955023	3Q23-LF-5	Water	07/17/23 11:07	07/26/23 11:15
35815955024	3Q23-LF-6	Water	07/17/23 13:18	07/26/23 11:15
35815955025	3Q23-EBLANK2	Water	07/17/23 13:40	07/26/23 11:15
35815955026	3Q23-Barnstead	Water	07/17/23 13:40	07/26/23 11:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ENV3Q23
 Pace Project No.: 35815955

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory	
35815955001	3Q23-R1T6	EPA 200.7	AME	2	PASI-O	
		EPA 900.0	REH1	1	PASI-PA	
		EPA 300.0	CMB	2	PASI-O	
		EPA 353.2	KW1	1	PASI-O	
		SM 5310B	CMB	1	PASI-O	
35815955002	3Q23-R2T1	EPA 200.7	AME	2	PASI-O	
		EPA 900.0	REH1	1	PASI-PA	
		EPA 300.0	CMB	2	PASI-O	
		EPA 353.2	KW1	1	PASI-O	
		SM 5310B	EAD	1	PASI-O	
35815955003	3Q23-R3T7	EPA 200.7	AME	2	PASI-O	
		EPA 900.0	REH1	1	PASI-PA	
		EPA 300.0	CMB	2	PASI-O	
		EPA 353.2	KW1	1	PASI-O	
		SM 5310B	CMB	1	PASI-O	
35815955004	3Q23-R4T5	EPA 200.7	AME	2	PASI-O	
		EPA 6020B	KRL	4	PASI-A	
		EPA 900.0	REH1	1	PASI-PA	
		EPA 903.1	CLM	1	PASI-PA	
		EPA 904.0	VAL	1	PASI-PA	
Total Radium Calculation				JAL	1	
				CMB	PASI-PA	
				EPA 300.0	3	
				KW1	PASI-O	
				SM 5310B	1	
35815955005	3Q23-R6T1	EPA 200.7	AME	2	PASI-O	
		EPA 300.0	CMB	2	PASI-O	
		EPA 353.2	KW1	1	PASI-O	
		SM 5310B	EAD	1	PASI-O	
		EPA 200.7	AME	2	PASI-O	
35815955006	3Q23-R6T4	EPA 6020B	KRL	4	PASI-A	
		EPA 900.0	REH1	1	PASI-PA	
		EPA 903.1	CLM	1	PASI-PA	
		EPA 904.0	VAL	1	PASI-PA	
		Total Radium Calculation	JAL	1	PASI-PA	
				CMB	PASI-O	
				EPA 300.0	3	
				KW1	PASI-O	
				SM 5310B	1	
				CMB	PASI-O	

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SAMPLE ANALYTE COUNT

Project: ENV3Q23
 Pace Project No.: 35815955

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35815955007	3Q23-R6T8	EPA 200.7	AME	2	PASI-O
		EPA 6020B	KRL	4	PASI-A
		EPA 900.0	REH1	1	PASI-PA
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
		EPA 200.7	AME	2	PASI-O
35815955008	3Q23-R6T12	EPA 900.0	REH1	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
		EPA 200.7	AME	2	PASI-O
35815955009	3Q23-R8T10	EPA 900.0	REH1	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
		EPA 200.7	AME	2	PASI-O
35815955010	3Q23R9T5	EPA 900.0	REH1	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
		EPA 200.7	AME	2	PASI-O
35815955011	3Q23-R10T8	EPA 900.0	REH1	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
		EPA 200.7	AME	2	PASI-O
		EPA 6020B	KRL	4	PASI-A
		EPA 900.0	REH1	1	PASI-PA
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
35815955012	3Q23-R11T4	EPA 300.0	CMB	3	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
		EPA 200.7	AME	2	PASI-O
		EPA 6020B	KRL	4	PASI-A

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SAMPLE ANALYTE COUNT

Project: ENV3Q23
 Pace Project No.: 35815955

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35815955013	3Q23-DEEP	EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
		EPA 200.7	AME	2	PASI-O
		EPA 900.0	REH1	1	PASI-PA
		EPA 300.0	CMB	2	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
35815955014	3Q23-EBLANK1	EPA 200.7	AME	2	PASI-O
		EPA 900.0	REH1	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
35815955015	3Q23-SIS-1	EPA 200.7	AME	2	PASI-O
		EPA 900.0	REH1	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 353.2	KW1	1	PASI-O
		SM 5310B	CMB	1	PASI-O
35815955016	3Q23-SIS-2	EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
35815955017	3Q23-SIS-3	EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
35815955018	3Q23-SIS-4	EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
35815955019	3Q23-LF-1	EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: ENV3Q23
Pace Project No.: 35815955

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35815955020	3Q23-LF-2	EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
35815955021	3Q23-LF-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
35815955022	3Q23-LF-4	EPA 300.0	CMB	3	PASI-O
		EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
35815955023	3Q23-LF-5	EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	KRL	4	PASI-A
35815955024	3Q23-LF-6	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
35815955025	3Q23-EBLANK2	EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 6020B	KRL	4	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
35815955026	3Q23-Barnstead	Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0	CMB	3	PASI-O
		EPA 200.7	TMA	2	PASI-O
		EPA 6020B	KRL	4	PASI-A
		EPA 300.0	CMB	3	PASI-O

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Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

SAMPLE ANALYTE COUNT

Project: ENV3Q23
Pace Project No.: 35815955

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
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PASI-A = Pace Analytical Services - Asheville

PASI-O = Pace Analytical Services - Ormond Beach

PASI-PA = Pace Analytical Services - Greensburg

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-R4T5 Lab ID: 35815955004 Collected: 07/12/23 08:48 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Ormond Beach								
Potassium	303 I	ug/L	1000	270	1	07/27/23 23:47	07/30/23 12:51	7440-09-7	
Sodium	5460	ug/L	2000	540	1	07/27/23 23:47	07/30/23 12:51	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 09:09	7440-36-0	
Boron	15.6 I	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 17:49	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 17:49	7439-93-2	
Titanium	0.78 I	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 09:09	7440-32-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	3.3 I	mg/L	5.0	2.5	1		08/01/23 17:48	16887-00-6	
Fluoride	0.28	mg/L	0.050	0.015	1		08/01/23 17:48	16984-48-8	
Sulfate	2.5 U	mg/L	5.0	2.5	1		08/01/23 17:48	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	0.084	mg/L	0.050	0.015	1		08/01/23 17:34		
5310B TOC	Analytical Method: SM 5310B Pace Analytical Services - Ormond Beach								
Total Organic Carbon	23.9	mg/L	1.0	0.50	1		08/03/23 18:01	7440-44-0	Y

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-R6T4 Lab ID: 35815955006 Collected: 07/12/23 10:29 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Ormond Beach								
Potassium	1990	ug/L	1000	270	1	07/27/23 23:47	07/30/23 12:58	7440-09-7	
Sodium	53300	ug/L	2000	540	1	07/27/23 23:47	07/30/23 12:58	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 09:14	7440-36-0	
Boron	35.3 I	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 17:54	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 17:54	7439-93-2	
Titanium	1.2	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 09:14	7440-32-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	23.4	mg/L	5.0	2.5	1		08/01/23 18:36	16887-00-6	
Fluoride	0.090	mg/L	0.050	0.015	1		08/01/23 18:36	16984-48-8	
Sulfate	97.5	mg/L	10.0	5.0	2		08/02/23 09:16	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	0.026 I	mg/L	0.050	0.015	1		08/01/23 17:35		
5310B TOC	Analytical Method: SM 5310B Pace Analytical Services - Ormond Beach								
Total Organic Carbon	14.4	mg/L	1.0	0.50	1		08/03/23 18:21	7440-44-0	Y

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-EBLANK1 Lab ID: 35815955014 Collected: 07/14/23 10:26 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Ormond Beach								
Potassium	270 U	ug/L	1000	270	1	07/27/23 23:47	07/30/23 13:38	7440-09-7	
Sodium	540 U	ug/L	2000	540	1	07/27/23 23:47	07/30/23 13:38	7440-23-5	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	2.5 U	mg/L	5.0	2.5	1		08/01/23 23:21	16887-00-6	
Fluoride	0.015 U	mg/L	0.050	0.015	1		08/01/23 23:21	16984-48-8	
Sulfate	2.5 U	mg/L	5.0	2.5	1		08/01/23 23:21	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	0.019 I	mg/L	0.050	0.015	1		08/03/23 21:32		
5310B TOC	Analytical Method: SM 5310B Pace Analytical Services - Ormond Beach								
Total Organic Carbon	0.50 U	mg/L	1.0	0.50	1		08/04/23 03:50	7440-44-0	Y

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-SIS-1 Lab ID: 35815955015 Collected: 07/13/23 10:00 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 09:34	7440-36-0	
Boron	20.5 I	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 18:14	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 18:14	7439-93-2	
Titanium	0.74 U	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 09:34	7440-32-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	95.6	mg/L	5.0	2.5	1		08/01/23 23:45	16887-00-6	
Fluoride	0.15	mg/L	0.050	0.015	1		08/01/23 23:45	16984-48-8	
Sulfate	30.4	mg/L	5.0	2.5	1		08/01/23 23:45	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-SIS-2 Lab ID: 35815955016 Collected: 07/13/23 11:08 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Antimony	0.28 I	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 09:39	7440-36-0	
Boron	24.0 I	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 18:19	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 18:19	7439-93-2	
Titanium	0.74 U	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 09:39	7440-32-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach							
Chloride	14.7	mg/L	5.0	2.5	1		08/02/23 00:09	16887-00-6	
Fluoride	0.40	mg/L	0.050	0.015	1		08/02/23 00:09	16984-48-8	
Sulfate	30.1	mg/L	5.0	2.5	1		08/02/23 00:09	14808-79-8	

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Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-SIS-3 Lab ID: 35815955017 Collected: 07/13/23 13:10 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.25 I	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 09:44	7440-36-0	
Boron	22.2 I	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 18:24	7440-42-8	
Lithium	0.79 I	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 18:24	7439-93-2	
Titanium	2.2 I	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 09:44	7440-32-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	4.6 I	mg/L	5.0	2.5	1		08/02/23 00:33	16887-00-6	
Fluoride	0.18 I	mg/L	0.050	0.015	1		08/02/23 00:33	16984-48-8	
Sulfate	3.0 I	mg/L	5.0	2.5	1		08/02/23 00:33	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-SIS-4 Lab ID: 35815955018 Collected: 07/14/23 10:00 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Antimony	0.20 U	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 09:59	7440-36-0	
Boron	13.4 I	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 18:39	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 18:39	7439-93-2	
Titanium	1.1	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 09:59	7440-32-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach							
Chloride	7.5	mg/L	5.0	2.5	1		08/02/23 00:56	16887-00-6	
Fluoride	0.24	mg/L	0.050	0.015	1		08/02/23 00:56	16984-48-8	
Sulfate	3.7 I	mg/L	5.0	2.5	1		08/02/23 00:56	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-1 Lab ID: 35815955019 Collected: 07/13/23 08:42 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Antimony	1.7	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 10:04	7440-36-0	
Boron	156	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 18:44	7440-42-8	
Lithium	5.7	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 18:44	7439-93-2	
Titanium	0.74 U	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 10:04	7440-32-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach							
Chloride	13.1	mg/L	5.0	2.5	1		08/02/23 01:20	16887-00-6	
Fluoride	0.092	mg/L	0.050	0.015	1		08/02/23 01:20	16984-48-8	
Sulfate	13.9	mg/L	5.0	2.5	1		08/02/23 01:20	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-2 Lab ID: 35815955020 Collected: 07/14/23 11:39 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 10:09	7440-36-0	
Boron	31.4 I	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 18:49	7440-42-8	
Lithium	1.3 I	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 18:49	7439-93-2	
Titanium	0.74 U	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 10:09	7440-32-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	38.6	mg/L	5.0	2.5	1		08/02/23 01:44	16887-00-6	
Fluoride	0.29	mg/L	0.050	0.015	1		08/02/23 01:44	16984-48-8	
Sulfate	9.3	mg/L	5.0	2.5	1		08/02/23 01:44	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-3 Lab ID: 35815955021 Collected: 07/17/23 08:11 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 10:14	7440-36-0	
Boron	2000	ug/L	1500	255	30	08/05/23 16:55	08/15/23 18:54	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 21:55	7439-93-2	
Titanium	2.0	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 10:14	7440-32-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	24.2	mg/L	5.0	2.5	1		08/02/23 03:43	16887-00-6	
Fluoride	0.042 I	mg/L	0.050	0.015	1		08/02/23 03:43	16984-48-8	
Sulfate	89.0	mg/L	5.0	2.5	1		08/02/23 03:43	14808-79-8	J(M1)

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-4 Lab ID: 35815955022 Collected: 07/17/23 09:21 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 10:19	7440-36-0	
Boron	253	ug/L	150	25.5	3	08/05/23 16:55	08/15/23 19:54	7440-42-8	
Lithium	8.8	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 19:19	7439-93-2	
Titanium	0.74 U	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 10:19	7440-32-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	18.1	mg/L	5.0	2.5	1		08/02/23 04:55	16887-00-6	
Fluoride	0.11	mg/L	0.050	0.015	1		08/02/23 04:55	16984-48-8	
Sulfate	35.1	mg/L	5.0	2.5	1		08/02/23 04:55	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-5 Lab ID: 35815955023 Collected: 07/17/23 11:07 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Antimony	1.2	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 10:34	7440-36-0	
Boron	805	ug/L	500	85.0	10	08/05/23 16:55	08/15/23 19:03	7440-42-8	
Lithium	2.3 I	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 22:00	7439-93-2	
Titanium	0.74 U	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 10:34	7440-32-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach							
Chloride	25.3	mg/L	5.0	2.5	1		08/02/23 10:52	16887-00-6	
Fluoride	0.087	mg/L	0.050	0.015	1		08/02/23 10:52	16984-48-8	
Sulfate	285	mg/L	25.0	12.5	5		08/02/23 11:15	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-6 Lab ID: 35815955024 Collected: 07/17/23 13:18 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.47 I	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 10:39	7440-36-0	
Boron	35.6 I	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 19:09	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 19:09	7439-93-2	
Titanium	0.74 U	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 10:39	7440-32-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	3.3 I	mg/L	5.0	2.5	1		08/02/23 05:42	16887-00-6	
Fluoride	0.069	mg/L	0.050	0.015	1		08/02/23 05:42	16984-48-8	
Sulfate	25.9	mg/L	5.0	2.5	1		08/02/23 05:42	14808-79-8	

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ANALYTICAL RESULTS

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-EBLANK2 Lab ID: 35815955025 Collected: 07/17/23 13:40 Received: 07/26/23 11:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	0.20 U	ug/L	1.0	0.20	1	08/05/23 16:55	08/10/23 10:44	7440-36-0	
Boron	12.9 I	ug/L	50.0	8.5	1	08/05/23 16:55	08/15/23 19:24	7440-42-8	
Lithium	0.50 U	ug/L	2.5	0.50	1	08/05/23 16:55	08/15/23 19:24	7439-93-2	
Titanium	0.74 U	ug/L	1.0	0.74	1	08/05/23 16:55	08/10/23 10:44	7440-32-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Ormond Beach								
Chloride	2.5 U	mg/L	5.0	2.5	1		08/02/23 06:06	16887-00-6	
Fluoride	0.015 U	mg/L	0.050	0.015	1		08/02/23 06:06	16984-48-8	
Sulfate	2.5 U	mg/L	5.0	2.5	1		08/02/23 06:06	14808-79-8	

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QUALITY CONTROL DATA

Project: ENV3Q23
 Pace Project No.: 35815955

QC Batch:	937292	Analysis Method:	EPA 200.7
QC Batch Method:	EPA 200.7	Analysis Description:	200.7 MET
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35815955001, 35815955002, 35815955003, 35815955004, 35815955005, 35815955006, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012, 35815955013, 35815955014		

METHOD BLANK: 5151448 Matrix: Water

Associated Lab Samples: 35815955001, 35815955002, 35815955003, 35815955004, 35815955005, 35815955006, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012, 35815955013, 35815955014

Parameter	Units	Blank		Reporting		MDL	Analyzed	Qualifiers
		Result	Limit	Result	Limit			
Potassium	ug/L	270	U	1000		270	07/30/23 12:07	
Sodium	ug/L	540	U	2000		540	07/30/23 12:07	

LABORATORY CONTROL SAMPLE: 5151449

Parameter	Units	Spike Conc.	LCS		% Rec	% Rec Limits	Qualifiers
			Result	Result			
Potassium	ug/L	12500	12500	12500	100	85-115	
Sodium	ug/L	12500	13100	13100	105	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5151450 5151451

Parameter	Units	MS		MSD		MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
		35815955001	Result	Spike Conc.	Spike Conc.									
Potassium	ug/L	487	I	12500	12500	13200	13400	102	103	70-130	1	20		
Sodium	ug/L	12500		12500	12500	25500	25800	104	106	70-130	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5151452 5151453

Parameter	Units	MS		MSD		MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
		35815955010	Result	Spike Conc.	Spike Conc.									
Potassium	ug/L	5280		12500	12500	18300	18500	104	106	70-130	1	20		
Sodium	ug/L	17800		12500	12500	30800	31100	104	106	70-130	1	20		

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QUALITY CONTROL DATA

Project: ENV3Q23
 Pace Project No.: 35815955

QC Batch:	940858	Analysis Method:	EPA 200.7
QC Batch Method:	EPA 200.7	Analysis Description:	200.7 MET
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35815955026		

METHOD BLANK: 5170633 Matrix: Water

Associated Lab Samples: 35815955026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Potassium	ug/L	270 U	1000	270	08/10/23 17:13	
Sodium	ug/L	540 U	2000	540	08/10/23 17:13	

LABORATORY CONTROL SAMPLE: 5170634

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Potassium	ug/L	12500	12500	100	85-115	
Sodium	ug/L	12500	13100	105	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5170635 5170636

Parameter	Units	35818803001	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result										
Potassium	ug/L	328000	12500	12500	315000	322000	-99	-42	70-130	2	20	J(M1), L
Sodium	ug/L	1180000	12500	12500	1010000	1030000	-1340	-1180	70-130	2	20	J(M1), L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5170637 5170638

Parameter	Units	92681129002	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result										
Potassium	ug/L	1980	12500	12500	14800	14500	103	100	70-130	2	20	
Sodium	ug/L	3010	12500	12500	16300	16000	106	104	70-130	2	20	

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QUALITY CONTROL DATA

Project: ENV3Q23
 Pace Project No.: 35815955

QC Batch:	791667	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3010A	Analysis Description:	6020 MET
Laboratory:			Pace Analytical Services - Asheville
Associated Lab Samples:	35815955004, 35815955006, 35815955007, 35815955011, 35815955012, 35815955015, 35815955016, 35815955017, 35815955018, 35815955019, 35815955020, 35815955021, 35815955022, 35815955023, 35815955024, 35815955025, 35815955026		

METHOD BLANK: 4102775		Matrix: Water			
Associated Lab Samples:	35815955004, 35815955006, 35815955007, 35815955011, 35815955012, 35815955015, 35815955016, 35815955017, 35815955018, 35815955019, 35815955020, 35815955021, 35815955022, 35815955023, 35815955024, 35815955025, 35815955026				

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Antimony	ug/L	0.20	U	1.0	0.20	08/10/23 08:08
Boron	ug/L	8.5	U	50.0	8.5	08/15/23 17:39
Lithium	ug/L	0.50	U	2.5	0.50	08/15/23 17:39
Titanium	ug/L	0.74	U	1.0	0.74	08/10/23 08:08

LABORATORY CONTROL SAMPLE: 4102776		Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers	
Antimony	ug/L	50	51.2	102	80-120		
Boron	ug/L	50	49.1	98	80-120		
Lithium	ug/L	50	50.4	101	80-120		
Titanium	ug/L	50	50.2	100	80-120		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4102777		4102778										
Parameter	Units	92679626005 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	50	50	47.9	47.5	96	95	75-125	1	20	
Boron	ug/L	71.9	50	50	117	115	91	87	75-125	2	20	
Lithium	ug/L	ND	50	50	49.6	49.3	96	95	75-125	1	20	
Titanium	ug/L	96.3	50	50	183	170	173	148	75-125	7	20	J(M1)

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QUALITY CONTROL DATA

Project: ENV3Q23

Pace Project No.: 35815955

QC Batch:	938277	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Laboratory:			Pace Analytical Services - Ormond Beach
Associated Lab Samples:	35815955001, 35815955002, 35815955003, 35815955004, 35815955005, 35815955006, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012, 35815955013, 35815955014, 35815955015, 35815955016, 35815955017, 35815955018, 35815955019, 35815955020		

METHOD BLANK: 5156059 Matrix: Water

Associated Lab Samples: 35815955001, 35815955002, 35815955003, 35815955004, 35815955005, 35815955006, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012, 35815955013, 35815955014, 35815955015, 35815955016, 35815955017, 35815955018, 35815955019, 35815955020

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Chloride	mg/L	2.5 U	5.0	2.5	08/01/23 15:01	
Fluoride	mg/L	0.015 U	0.050	0.015	08/01/23 15:01	
Sulfate	mg/L	2.5 U	5.0	2.5	08/01/23 15:01	

LABORATORY CONTROL SAMPLE: 5156060

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Chloride	mg/L	50	48.2	96	90-110	
Fluoride	mg/L	5	5.2	105	90-110	
Sulfate	mg/L	50	47.9	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5159164 5159165

Parameter	Units	35815955001	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	RPD	Max
		Result	Spike	Spike									
Chloride	mg/L	13.9	50	50	63.9	62.2	100	97	90-110	3	20		
Fluoride	mg/L	0.44	5	5	5.7	5.5	104	101	90-110	3	20		
Sulfate	mg/L	2.5 U	50	50	47.4	45.7	92	89	90-110	4	20	J(M1)	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5159166 5159167

Parameter	Units	35815955011	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	RPD	Max
		Result	Spike	Spike									
Chloride	mg/L	6.1	50	50	55.5	55.3	99	98	90-110	0	20		
Fluoride	mg/L	0.081	5	5	5.4	5.4	106	106	90-110	0	20		
Sulfate	mg/L	12.8	50	50	62.9	62.9	100	100	90-110	0	20		

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QUALITY CONTROL DATA

Project: ENV3Q23
Pace Project No.: 35815955

QC Batch: 938279 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35815955021, 35815955022, 35815955023, 35815955024, 35815955025, 35815955026

METHOD BLANK: 5156064 Matrix: Water

Associated Lab Samples: 35815955021, 35815955022, 35815955023, 35815955024, 35815955025, 35815955026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	2.5 U	5.0	2.5	08/02/23 02:55	
Fluoride	mg/L	0.015 U	0.050	0.015	08/02/23 02:55	
Sulfate	mg/L	2.5 U	5.0	2.5	08/02/23 02:55	

LABORATORY CONTROL SAMPLE: 5156065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.7	97	90-110	
Fluoride	mg/L	5	5.3	105	90-110	
Sulfate	mg/L	50	48.0	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5159172 5159173

Parameter	Units	MS		MSD		MS		MSD		% Rec		Max	
		35815955021	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	MSD % Rec	RPD	RPD	Qual	RPD	Qual
Chloride	mg/L	24.2	50	50	77.6	77.4	107	107	90-110	0	20		
Fluoride	mg/L	0.042 I	5	5	5.3	5.3	106	106	90-110	0	20		
Sulfate	mg/L	89.0	50	50	149	148	119	118	90-110	0	20	J(M1), L	

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REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL DATA

Project: ENV3Q23
Pace Project No.: 35815955

QC Batch: 937813 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 35815955002, 35815955005 Laboratory: Pace Analytical Services - Ormond Beach

METHOD BLANK: 5154452 Matrix: Water

Associated Lab Samples: 35815955002, 35815955005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	0.015 U	0.050	0.015	07/29/23 17:32	

LABORATORY CONTROL SAMPLE: 5154453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	2	1.9	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5154455 5154454

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Max Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	35816592008	2.9	2	4.5	4.5	81	79	90-110	1	20 J(M1)

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5154457 5154456

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Max Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	35815368004	0.50	2	2.2	2.2	85	85	90-110	1	20 J(M1)

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QUALITY CONTROL DATA

Project: ENV3Q23
Pace Project No.: 35815955

QC Batch: 938393 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35815955001, 35815955004, 35815955006

METHOD BLANK: 5156706 Matrix: Water

Associated Lab Samples: 35815955001, 35815955004, 35815955006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	0.015 U	0.050	0.015	08/01/23 17:03	

LABORATORY CONTROL SAMPLE: 5156707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	2	2.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5156709 5156708

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	0.47	2	2	2.2	2.4	87	97	90-110	9	20 J(M1)

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5156711 5156710

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	11.3	20	20	29.5	29.5	91	91	90-110	0	20

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QUALITY CONTROL DATA

Project: ENV3Q23
Pace Project No.: 35815955

QC Batch: 939269 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35815955003, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012

METHOD BLANK: 5161543 Matrix: Water

Associated Lab Samples: 35815955003, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	0.015 U	0.050	0.015	08/03/23 18:02	

LABORATORY CONTROL SAMPLE: 5161544

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	2	2.1	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5161546 5161545

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	0.18	2	2	1.8	1.9	82	84	90-110	2	20 J(M1)

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5161548 5161547

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	0.090	2	2	1.1	1.1	49	49	90-110	0	20 J(M1)

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QUALITY CONTROL DATA

Project: ENV3Q23

Pace Project No.: 35815955

QC Batch: 939317

QC Batch Method: EPA 353.2

Analysis Method: EPA 353.2

Analysis Description: 353.2 Nitrate + Nitrite, preserved

Laboratory:

Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35815955013

METHOD BLANK: 5162088

Matrix: Water

Associated Lab Samples: 35815955013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	0.015 U	0.050	0.015	08/03/23 20:43	

LABORATORY CONTROL SAMPLE: 5162089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	2	2.0	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5162091 5162090

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	2.1	2	2	3.8	3.7	82	77	90-110	3	20 J(M1)

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5162093 5162092

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	1.0	2	2	2.8	2.8	90	88	90-110	1	20 J(M1)

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QUALITY CONTROL DATA

Project: ENV3Q23

Pace Project No.: 35815955

QC Batch: 939319

QC Batch Method: EPA 353.2

Analysis Method: EPA 353.2

Analysis Description: 353.2 Nitrate + Nitrite, preserved

Laboratory:

Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35815955014

METHOD BLANK: 5162094

Matrix: Water

Associated Lab Samples: 35815955014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	0.015 U	0.050	0.015	08/03/23 21:24	

LABORATORY CONTROL SAMPLE: 5162095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	2	2.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5162097 5162096

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Max Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	0.054	2	2	1.7	1.7	83	82	90-110	2	20 J(M1)

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5162099 5162098

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Max Qual
Nitrogen, NO ₂ plus NO ₃	mg/L	0.020 I	2	2	1.8	2.0	88	97	90-110	10	20 J(M1)

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QUALITY CONTROL DATA

Project: ENV3Q23
 Pace Project No.: 35815955

QC Batch:	938708	Analysis Method:	SM 5310B
QC Batch Method:	SM 5310B	Analysis Description:	5310B TOC
		Laboratory:	Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35815955002, 35815955005			

METHOD BLANK: 5158449 Matrix: Water

Associated Lab Samples: 35815955002, 35815955005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.50 U	1.0	0.50	08/03/23 06:55	

LABORATORY CONTROL SAMPLE: 5158450

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	20	20.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5158451 5158452

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Total Organic Carbon	mg/L	9.3	20	20	30.0	30.2	104	105	80-120	1	20

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QUALITY CONTROL DATA

Project: ENV3Q23
Pace Project No.: 35815955

QC Batch: 939011 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35815955001, 35815955004, 35815955006

METHOD BLANK: 5160379 Matrix: Water

Associated Lab Samples: 35815955001, 35815955004, 35815955006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.50 U	1.0	0.50	08/03/23 14:55	

LABORATORY CONTROL SAMPLE: 5160380

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	20	21.8	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5160381 5160382

Parameter	Units	35817197001 MS Result	Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	0.56 I	20	20	22.2	21.9	108	107	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5160383 5160384

Parameter	Units	35817495001 MS Result	Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.3	20	20	23.4	23.5	105	106	80-120	0	20	

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QUALITY CONTROL DATA

Project: ENV3Q23
Pace Project No.: 35815955

QC Batch: 939020 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35815955003, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012,
35815955013, 35815955014

METHOD BLANK: 5160385 Matrix: Water

Associated Lab Samples: 35815955003, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012,
35815955013, 35815955014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.50 U	1.0	0.50	08/03/23 23:24	

LABORATORY CONTROL SAMPLE: 5160386

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	20	21.7	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5160387 5160388

Parameter	Units	35814748001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	0.50 U	20	20	21.8	21.9	106	107	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5160389 5160390

Parameter	Units	35816902002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	20	20	21.7	21.5	108	107	80-120	1	20	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-R4T5 Lab ID: 35815955004 Collected: 07/12/23 08:48 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Gross Alpha	EPA 900.0	2.82U ± 1.19 (2.82) C:NA T:NA	pCi/L	08/23/23 08:32	12587-46-1	
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.667U ± 0.362 (0.667) C:NA T:103%	pCi/L	08/21/23 13:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.888U ± 0.447 (0.888) C:79% T:83%	pCi/L	08/17/23 11:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.56U ± 0.809 (1.56)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-R6T4 Lab ID: 35815955006 Collected: 07/12/23 10:29 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Gross Alpha	EPA 900.0	2.73U ± 0.994 (2.73) C:NA T:NA	pCi/L	08/23/23 10:11	12587-46-1	
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.28 ± 0.656 (0.688) C:NA T:94%	pCi/L	08/21/23 13:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.921 ± 0.500 (0.920) C:80% T:83%	pCi/L	08/17/23 11:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.61U ± 1.16 (1.61)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-EBLANK1 Lab ID: 35815955014 Collected: 07/14/23 10:26 Received: 07/26/23 11:15 Matrix: Water

PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Gross Alpha	EPA 900.0	2.03U ± 0.771 (2.03) C:NA T:NA	pCi/L	08/23/23 08:37	12587-46-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-SIS-1 Lab ID: 35815955015 Collected: 07/13/23 10:00 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.936U ± 0.549 (0.936) C:NA T:94%	pCi/L	08/21/23 13:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.757U ± 0.365 (0.757) C:77% T:83%	pCi/L	08/17/23 11:34	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.69U ± 0.914 (1.69)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-SIS-2 Lab ID: 35815955016 Collected: 07/13/23 11:08 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.01U ± 0.579 (1.01) C:NA T:97%	pCi/L	08/21/23 13:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.699U ± 0.329 (0.699) C:82% T:89%	pCi/L	08/17/23 11:34	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.71U ± 0.908 (1.71)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-SIS-3 Lab ID: 35815955017 Collected: 07/13/23 13:10 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.712U ± 0.337 (0.712) C:NA T:97%	pCi/L	08/21/23 13:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.14U ± 0.599 (1.14) C:71% T:76%	pCi/L	08/17/23 11:35	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.85U ± 0.936 (1.85)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-SIS-4 Lab ID: 35815955018 Collected: 07/14/23 10:00 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.734U ± 0.513 (0.734) C:NA T:99%	pCi/L	08/21/23 13:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.50 ± 0.515 (0.743) C:83% T:89%	pCi/L	08/17/23 11:35	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.50 ± 1.03 (1.48)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-1 Lab ID: 35815955019 Collected: 07/13/23 08:42 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.846 ± 0.583 (0.795) C:NA T:99%	pCi/L	08/21/23 13:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.934 ± 0.446 (0.777) C:81% T:89%	pCi/L	08/17/23 11:35	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.57U ± 1.03 (1.57)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-2 Lab ID: 35815955020 Collected: 07/14/23 11:39 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.756 ± 0.432 (0.397) C:NA T:99%	pCi/L	08/21/23 13:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.758U ± 0.383 (0.758) C:82% T:91%	pCi/L	08/17/23 11:35	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.16U ± 0.815 (1.16)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-3 Lab ID: 35815955021 Collected: 07/17/23 08:11 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.17 ± 0.688 (0.872) C:NA T:97%	pCi/L	08/21/23 13:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.907 ± 0.454 (0.807) C:82% T:86%	pCi/L	08/17/23 11:35	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.68U ± 1.14 (1.68)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-4 Lab ID: 35815955022 Collected: 07/17/23 09:21 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.678U ± 0.501 (0.678) C:NA T:100%	pCi/L	08/21/23 13:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.720 ± 0.392 (0.709) C:83% T:87%	pCi/L	08/17/23 11:36	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.39U ± 0.893 (1.39)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-5 Lab ID: 35815955023 Collected: 07/17/23 11:07 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	5.33 ± 1.43 (1.16) C:NA T:96%	pCi/L	08/21/23 13:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	3.71 ± 0.886 (0.757) C:82% T:85%	pCi/L	08/17/23 11:36	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	3.71 ± 2.32 (1.92)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-LF-6 Lab ID: 35815955024 Collected: 07/17/23 13:18 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.493U ± 0.380 (0.493) C:NA T:97%	pCi/L	08/21/23 13:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.793U ± 0.429 (0.793) C:82% T:88%	pCi/L	08/17/23 11:36	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.29U ± 0.809 (1.29)	pCi/L	08/22/23 16:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ENV3Q23
Pace Project No.: 35815955

Sample: 3Q23-EBLANK2 Lab ID: 35815955025 Collected: 07/17/23 13:40 Received: 07/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.418U ± 0.260 (0.418) C:NA T:102%	pCi/L	08/21/23 13:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.12 ± 0.459 (0.733) C:84% T:84%	pCi/L	08/17/23 11:36	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.15U ± 0.719 (1.15)	pCi/L	08/22/23 16:51	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ENV3Q23

Pace Project No.: 35815955

QC Batch:	606955	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	35815955004, 35815955006, 35815955007, 35815955011, 35815955012, 35815955015, 35815955016, 35815955017, 35815955018, 35815955019, 35815955020, 35815955021, 35815955022, 35815955023, 35815955024, 35815955025		

METHOD BLANK: 2952304 Matrix: Water

Associated Lab Samples: 35815955004, 35815955006, 35815955007, 35815955011, 35815955012, 35815955015, 35815955016,
35815955017, 35815955018, 35815955019, 35815955020, 35815955021, 35815955022, 35815955023,
35815955024, 35815955025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.839 ± 0.321 (0.430) C:87% T:91%	pCi/L	08/17/23 11:46	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ENV3Q23

Pace Project No.: 35815955

QC Batch:	609715	Analysis Method:	EPA 900.0
QC Batch Method:	EPA 900.0	Analysis Description:	900.0 Gross Alpha/Beta
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	35815955001, 35815955002, 35815955003, 35815955004, 35815955006, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012, 35815955013, 35815955014		

METHOD BLANK:	2967206	Matrix:	Water
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Associated Lab Samples:	35815955001, 35815955002, 35815955003, 35815955004, 35815955006, 35815955007, 35815955008, 35815955009, 35815955010, 35815955011, 35815955012, 35815955013, 35815955014
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Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.067 ± 0.695 (1.81) C:NA T:NA	pCi/L	08/23/23 08:31	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ENV3Q23

Pace Project No.: 35815955

QC Batch:	606953	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	35815955004, 35815955006, 35815955007, 35815955011, 35815955012, 35815955015, 35815955016, 35815955017, 35815955018, 35815955019, 35815955020, 35815955021, 35815955022, 35815955023, 35815955024, 35815955025		

METHOD BLANK: 2952301 Matrix: Water

Associated Lab Samples: 35815955004, 35815955006, 35815955007, 35815955011, 35815955012, 35815955015, 35815955016,
35815955017, 35815955018, 35815955019, 35815955020, 35815955021, 35815955022, 35815955023,
35815955024, 35815955025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.710 ± 0.434 (0.533) C:NA T:99%	pCi/L	08/21/23 13:07	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: ENV3Q23
Pace Project No.: 35815955

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- U Compound was analyzed for but not detected.
- J(M1) Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- L Off-scale high. Actual value is known to be greater than value given.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ENV3Q23
 Pace Project No.: 35815955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35815955001	3Q23-R1T6	EPA 200.7	937292	EPA 200.7	937317
35815955002	3Q23-R2T1	EPA 200.7	937292	EPA 200.7	937317
35815955003	3Q23-R3T7	EPA 200.7	937292	EPA 200.7	937317
35815955004	3Q23-R4T5	EPA 200.7	937292	EPA 200.7	937317
35815955005	3Q23-R6T1	EPA 200.7	937292	EPA 200.7	937317
35815955006	3Q23-R6T4	EPA 200.7	937292	EPA 200.7	937317
35815955007	3Q23-R6T8	EPA 200.7	937292	EPA 200.7	937317
35815955008	3Q23-R6T12	EPA 200.7	937292	EPA 200.7	937317
35815955009	3Q23-R8T10	EPA 200.7	937292	EPA 200.7	937317
35815955010	3Q23R9T5	EPA 200.7	937292	EPA 200.7	937317
35815955011	3Q23-R10T8	EPA 200.7	937292	EPA 200.7	937317
35815955012	3Q23-R11T4	EPA 200.7	937292	EPA 200.7	937317
35815955013	3Q23-DEEP	EPA 200.7	937292	EPA 200.7	937317
35815955014	3Q23-EBLANK1	EPA 200.7	937292	EPA 200.7	937317
35815955026	3Q23-Barnstead	EPA 200.7	940858	EPA 200.7	940889
35815955004	3Q23-R4T5	EPA 3010A	791667	EPA 6020B	791703
35815955006	3Q23-R6T4	EPA 3010A	791667	EPA 6020B	791703
35815955007	3Q23-R6T8	EPA 3010A	791667	EPA 6020B	791703
35815955011	3Q23-R10T8	EPA 3010A	791667	EPA 6020B	791703
35815955012	3Q23-R11T4	EPA 3010A	791667	EPA 6020B	791703
35815955015	3Q23-SIS-1	EPA 3010A	791667	EPA 6020B	791703
35815955016	3Q23-SIS-2	EPA 3010A	791667	EPA 6020B	791703
35815955017	3Q23-SIS-3	EPA 3010A	791667	EPA 6020B	791703
35815955018	3Q23-SIS-4	EPA 3010A	791667	EPA 6020B	791703
35815955019	3Q23-LF-1	EPA 3010A	791667	EPA 6020B	791703
35815955020	3Q23-LF-2	EPA 3010A	791667	EPA 6020B	791703
35815955021	3Q23-LF-3	EPA 3010A	791667	EPA 6020B	791703
35815955022	3Q23-LF-4	EPA 3010A	791667	EPA 6020B	791703
35815955023	3Q23-LF-5	EPA 3010A	791667	EPA 6020B	791703
35815955024	3Q23-LF-6	EPA 3010A	791667	EPA 6020B	791703
35815955025	3Q23-EBLANK2	EPA 3010A	791667	EPA 6020B	791703
35815955026	3Q23-Barnstead	EPA 3010A	791667	EPA 6020B	791703
35815955001	3Q23-R1T6	EPA 900.0	609715		
35815955002	3Q23-R2T1	EPA 900.0	609715		
35815955003	3Q23-R3T7	EPA 900.0	609715		
35815955004	3Q23-R4T5	EPA 900.0	609715		
35815955006	3Q23-R6T4	EPA 900.0	609715		
35815955007	3Q23-R6T8	EPA 900.0	609715		
35815955008	3Q23-R6T12	EPA 900.0	609715		
35815955009	3Q23-R8T10	EPA 900.0	609715		
35815955010	3Q23R9T5	EPA 900.0	609715		
35815955011	3Q23-R10T8	EPA 900.0	609715		
35815955012	3Q23-R11T4	EPA 900.0	609715		
35815955013	3Q23-DEEP	EPA 900.0	609715		
35815955014	3Q23-EBLANK1	EPA 900.0	609715		
35815955004	3Q23-R4T5	EPA 903.1	606953		
35815955006	3Q23-R6T4	EPA 903.1	606953		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ENV3Q23
 Pace Project No.: 35815955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35815955007	3Q23-R6T8	EPA 903.1	606953		
35815955011	3Q23-R10T8	EPA 903.1	606953		
35815955012	3Q23-R11T4	EPA 903.1	606953		
35815955015	3Q23-SIS-1	EPA 903.1	606953		
35815955016	3Q23-SIS-2	EPA 903.1	606953		
35815955017	3Q23-SIS-3	EPA 903.1	606953		
35815955018	3Q23-SIS-4	EPA 903.1	606953		
35815955019	3Q23-LF-1	EPA 903.1	606953		
35815955020	3Q23-LF-2	EPA 903.1	606953		
35815955021	3Q23-LF-3	EPA 903.1	606953		
35815955022	3Q23-LF-4	EPA 903.1	606953		
35815955023	3Q23-LF-5	EPA 903.1	606953		
35815955024	3Q23-LF-6	EPA 903.1	606953		
35815955025	3Q23-EBLANK2	EPA 903.1	606953		
35815955004	3Q23-R4T5	EPA 904.0	606955		
35815955006	3Q23-R6T4	EPA 904.0	606955		
35815955007	3Q23-R6T8	EPA 904.0	606955		
35815955011	3Q23-R10T8	EPA 904.0	606955		
35815955012	3Q23-R11T4	EPA 904.0	606955		
35815955015	3Q23-SIS-1	EPA 904.0	606955		
35815955016	3Q23-SIS-2	EPA 904.0	606955		
35815955017	3Q23-SIS-3	EPA 904.0	606955		
35815955018	3Q23-SIS-4	EPA 904.0	606955		
35815955019	3Q23-LF-1	EPA 904.0	606955		
35815955020	3Q23-LF-2	EPA 904.0	606955		
35815955021	3Q23-LF-3	EPA 904.0	606955		
35815955022	3Q23-LF-4	EPA 904.0	606955		
35815955023	3Q23-LF-5	EPA 904.0	606955		
35815955024	3Q23-LF-6	EPA 904.0	606955		
35815955025	3Q23-EBLANK2	EPA 904.0	606955		
35815955004	3Q23-R4T5	Total Radium Calculation	610397		
35815955006	3Q23-R6T4	Total Radium Calculation	610397		
35815955007	3Q23-R6T8	Total Radium Calculation	610397		
35815955011	3Q23-R10T8	Total Radium Calculation	610397		
35815955012	3Q23-R11T4	Total Radium Calculation	610397		
35815955015	3Q23-SIS-1	Total Radium Calculation	610397		
35815955016	3Q23-SIS-2	Total Radium Calculation	610397		
35815955017	3Q23-SIS-3	Total Radium Calculation	610397		
35815955018	3Q23-SIS-4	Total Radium Calculation	610397		
35815955019	3Q23-LF-1	Total Radium Calculation	610397		
35815955020	3Q23-LF-2	Total Radium Calculation	610397		
35815955021	3Q23-LF-3	Total Radium Calculation	610397		
35815955022	3Q23-LF-4	Total Radium Calculation	610397		
35815955023	3Q23-LF-5	Total Radium Calculation	610397		
35815955024	3Q23-LF-6	Total Radium Calculation	610397		
35815955025	3Q23-EBLANK2	Total Radium Calculation	610397		
35815955001	3Q23-R1T6	EPA 300.0	938277		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ENV3Q23
 Pace Project No.: 35815955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35815955002	3Q23-R2T1	EPA 300.0	938277		
35815955003	3Q23-R3T7	EPA 300.0	938277		
35815955004	3Q23-R4T5	EPA 300.0	938277		
35815955005	3Q23-R6T1	EPA 300.0	938277		
35815955006	3Q23-R6T4	EPA 300.0	938277		
35815955007	3Q23-R6T8	EPA 300.0	938277		
35815955008	3Q23-R6T12	EPA 300.0	938277		
35815955009	3Q23-R8T10	EPA 300.0	938277		
35815955010	3Q23R9T5	EPA 300.0	938277		
35815955011	3Q23-R10T8	EPA 300.0	938277		
35815955012	3Q23-R11T4	EPA 300.0	938277		
35815955013	3Q23-DEEP	EPA 300.0	938277		
35815955014	3Q23-EBLANK1	EPA 300.0	938277		
35815955015	3Q23-SIS-1	EPA 300.0	938277		
35815955016	3Q23-SIS-2	EPA 300.0	938277		
35815955017	3Q23-SIS-3	EPA 300.0	938277		
35815955018	3Q23-SIS-4	EPA 300.0	938277		
35815955019	3Q23-LF-1	EPA 300.0	938277		
35815955020	3Q23-LF-2	EPA 300.0	938277		
35815955021	3Q23-LF-3	EPA 300.0	938279		
35815955022	3Q23-LF-4	EPA 300.0	938279		
35815955023	3Q23-LF-5	EPA 300.0	938279		
35815955024	3Q23-LF-6	EPA 300.0	938279		
35815955025	3Q23-EBLANK2	EPA 300.0	938279		
35815955026	3Q23-Barnstead	EPA 300.0	938279		
35815955001	3Q23-R1T6	EPA 353.2	938393		
35815955002	3Q23-R2T1	EPA 353.2	937813		
35815955003	3Q23-R3T7	EPA 353.2	939269		
35815955004	3Q23-R4T5	EPA 353.2	938393		
35815955005	3Q23-R6T1	EPA 353.2	937813		
35815955006	3Q23-R6T4	EPA 353.2	938393		
35815955007	3Q23-R6T8	EPA 353.2	939269		
35815955008	3Q23-R6T12	EPA 353.2	939269		
35815955009	3Q23-R8T10	EPA 353.2	939269		
35815955010	3Q23R9T5	EPA 353.2	939269		
35815955011	3Q23-R10T8	EPA 353.2	939269		
35815955012	3Q23-R11T4	EPA 353.2	939269		
35815955013	3Q23-DEEP	EPA 353.2	939317		
35815955014	3Q23-EBLANK1	EPA 353.2	939319		
35815955001	3Q23-R1T6	SM 5310B	939011		
35815955002	3Q23-R2T1	SM 5310B	938708		
35815955003	3Q23-R3T7	SM 5310B	939020		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ENV3Q23
Pace Project No.: 35815955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35815955004	3Q23-R4T5	SM 5310B	939011		
35815955005	3Q23-R6T1	SM 5310B	938708		
35815955006	3Q23-R6T4	SM 5310B	939011		
35815955007	3Q23-R6T8	SM 5310B	939020		
35815955008	3Q23-R6T12	SM 5310B	939020		
35815955009	3Q23-R8T10	SM 5310B	939020		
35815955010	3Q23R9T5	SM 5310B	939020		
35815955011	3Q23-R10T8	SM 5310B	939020		
35815955012	3Q23-R11T4	SM 5310B	939020		
35815955013	3Q23-DEEP	SM 5310B	939020		
35815955014	3Q23-EBLANK1	SM 5310B	939020		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OFF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Gainesville Regional Utilities

PO# 4510059790

Billing Information:

Address: 1000 NW 13th St.
Gainesville, FL 32653

Report To: Jeff Boudreau

Email: boudreaujp@gru.com

COPY TO:

Customer Project Name/Number:

ENV3Q23

Phone: 352-395-6346

Email: boudreaujp@gru.com

Collected By (print):

Jeff Boudreau

Collected By (Signature):

Customer Remarks / Special Conditions / Possible Hazards:

Packing Material Used:

RadTech sample(s) screened (<500 cpm):

Y

N

NA

Type of Ice Used:

Wet

Dry

None

SHORT HOLD PRESENT (<72 hours):

Y

N

N/A

Lab Sample Temperature Info:

Temp Blank Received:

Y

N

N/A

Therm ID#:

Cooler 1 Temp Upon Receipt:

oC

Cooler 2 Therm Corr. Factor:

oC

Cooler 1 Corrected Temp:

Comments:

Received by/Company: (Signature)

ALL SHADED AREAS are for LAB USE ONLY

		Container Preservative Type		Lab Project Manager:	
ICE	2	2	1	1	ICE
* Preervative types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium thiosulfate, (5) zinc acetate, (6) mercuric (7) sodium bisulfite, (8) ammonium hydroxide, (D) TSP, (U) unpreserved, (O) Osm.					
[C] ammonium sulfate, [A] ascorbic acid, [B] ammonium sulfite,					
Analyses					
Lab Profile/Line					
Lab Sample Rec'd/Checklist:					
Custody Seal Present/Intact Y N NA Custody Signatures Present Y N NA Collector Signature Present Y N NA Bottles Intact Y N NA Correct Bottles Y N NA Sufficient Volume Y N NA Samples Received on Ice Y N NA V.O.C. - Headspace Acceptable Y N NA USA Regulated Soils Y N NA Samples in Holding Time Y N NA Residual Chlorine Present Y N NA Cl. Strips: Sample pH Acceptable Y N NA pH Strips: Sulfide Present Y N NA Dead Acetate Strips: _____					
LAB USE ONLY: Lab Sample # / Comments:					
300.0 IC Anions (Cl, SO4)					
353.2 Nitrogen, NO2/NO3					
300.7 ICP Metals (Na, K)					
6020 Metals (Sb, Ti, B, Li)					
300.0 IC Anions (Cl, SO4, F)					
5310B TOC					
Gross Alpha by 7110C					
Sum of Radium 226+228					
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5310B TOC					
Gross Alpha by 7110C					
Sum of Radium 226+228					
200.7 ICP Metals (Na, K)					
300.0 IC Anions (Cl, SO4)					
5310B TOC					

Sample Condition Upon Receipt Form (SCUR)

WO# : 35815955

Project #
Project Manager:
Client:

PM: JSB **Due Date: 08/11/23**
CLIENT: DEELAB

Thermometer Used: T-4108Date 7/25/23Time 1141

State of Origin _____

 For WV projects, all containers verified to 55 °CCooler #1 Temp. °C 24.7 (Visual) 50.1 (Correction Factor) 24.8 (Actual)Cooler #2 Temp. °C 25.0 (Visual) 50.1 (Correction Factor) 25.9 (Actual)Cooler #3 Temp. °C 23.3 (Visual) 22.7 (Correction Factor) 23.4 (Actual)Cooler #4 Temp. °C 15.1 (Visual) 50.1 (Correction Factor) 25.6 (Actual)

Cooler #5 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

Cooler #6 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

Recheck for OOT °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

Courier: FedEx UPS USPS Client Commercial Pace OtherShipping Method: Standard Overnight First Overnight Priority Overnight Ground International PriorityBilling: Recipient Sender Third Party Credit Card UnknownTracking # 7815 3302 8402Custody Seal Present: Yes No Seal properly placed and intact: Yes NoIce: Wet Blue Dry None MeltedPacking Material: Bubble Wrap Bubble Bags None OtherSamples shorted to lab: Yes No (If yes, complete the following)

Shorted Date: _____

Shorted Time: _____

Bottle Quantity / Type: _____

Chain of Custody:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Relinquished From Pace: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Sampler Name: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Relinquished To Pace:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Sampling Date(s): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Sampling Time(s): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples Arrived within Hold Time	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Comments _____
Rush Turnaround Requested on COC	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	Comments _____
Sufficient Volume	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	Comments _____
Correct Containers Used	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Comments _____
Containers Intact	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	Comments _____
Sample Labels Match COC (Sample ID, Date/Time of Collection)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Comments _____
All containers needing acid / base preservation have been checked	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Preservation Information
All containers needing preservation are found to be in compliance with EPA recommendation:	<input checked="" type="checkbox"/> Yes <i>15814</i>	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Preservative: <u>1Tmrs</u> Date: <u>8/4/23</u>
Exceptions: Vials, Microbiology, O&G, PFAS				Lot / Trace: <u>2252028</u> Time: <u>1506</u>
Headspace in Volatile Vials? (>6mm)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	Amount added (mL): <u>1</u> Initials: <u>AS</u>
Trip Blank Present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	

Comments / Resolutions (use back for additional comments):

with lid off & sample "EBlank1" arrived half empty for gross alpha

Sample Condition Upon Receipt Form (SCUR)

WO# : 35815955*Pace*

Project #
Project Manager:
Client:

PM: JSB**Due Date: 08/11/23****CLIENT: DEELAB**Thermometer Used T-403Date: 7/26/23Time: 1147Initials: EAST

State of Origin _____

 For WV projects, all containers verified to ≤ 6 °CCooler #1 Temp. °C 8.9 (Visual) 10.1 (Correction Factor) 9.0 (Actual) Samples on ice, cooling process has begun

Cooler #2 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

 Samples on ice, cooling process has begun

Cooler #3 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

 Samples on ice, cooling process has begun

Cooler #4 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

 Samples on ice, cooling process has begun

Cooler #5 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

 Samples on ice, cooling process has begun

Cooler #6 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

 Samples on ice, cooling process has begunRecheck for OOT °C 10.4 (Visual) 10.1 (Correction Factor) 11.0 (Actual) Samples on ice, cooling process has begunCourier: FedEx UPS USPS Client Commercial Pace OtherTime: 1147 Initials: NPLShipping Method: Standard Overnight First Overnight Priority Overnight Ground International PriorityBilling: Recipient Sender Third Party Credit Card UnknownTracking # 7815 3318 9896Custody Seal Present: Yes No Seal properly placed and intact: Yes NoIce: Wet Blue Dry None MeltedPacking Material: Bubble Wrap Bubble Bags None OtherSamples shorted to lab: Yes No (If yes, complete the following)

Shorted Date: _____

Shorted Time: _____

Bottle Quantity / Type: _____

Chain of Custody:	Present: <input type="checkbox"/> Yes <input type="checkbox"/> No Filled Out: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Relinquished From Pace: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sampler Name: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
	Relinquished To Pace: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sampling Date(s): <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sampling Time(s): <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Samples Arrived within Hold Time	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Rush Turnaround Requested on COC	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Sufficient Volume	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Correct Containers Used	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Containers Intact	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Sample Labels Match COC (Sample ID, Date/Time of Collection)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
All containers needing acid / base preservation have been checked	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Preservation Information			
All containers needing preservation are found to be in compliance with EPA recommendation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Exceptions: Vials, Microbiology, O&G, PFAS	Lot / Trace: _____		Time: _____
Headspace in Volatile Vials? (>6mm):	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Trip Blank Present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Comments / Resolutions (use back for additional comments): _____			



Kanapaha Laboratory

3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

September 18, 2023

Jeff Boudreau
Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

RE: Environmental - Deerhaven CCR Wells

Enclosed are the results of analyses for samples received by the laboratory on 7/18/2023. If you have any questions concerning this report, please feel free to contact me.

Please note that all results were determined in accordance with NELAP requirements. All data is subject to a degree of uncertainty. Kanapaha Lab uncertainty is based upon LCS quality control statistics.

Sincerely,

Jaclyn M Dilhos
Laboratory Supervisor



Kanapaha Laboratory

3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
K23G058-01	SIS-1	Groundwater	07/13/2023 10:00	07/18/2023 09:49
K23G058-02	SIS-2	Groundwater	07/13/2023 11:08	07/18/2023 09:49
K23G058-03	SIS-3	Groundwater	07/13/2023 13:10	07/18/2023 09:49
K23G058-04	SIS-4	Groundwater	07/14/2023 10:00	07/18/2023 09:49
K23G058-05	LF-1	Groundwater	07/13/2023 08:42	07/18/2023 09:49
K23G058-06	LF-2	Groundwater	07/14/2023 11:39	07/18/2023 09:49
K23G058-07	LF-3	Groundwater	07/17/2023 08:11	07/18/2023 09:49
K23G058-08	LF-4	Groundwater	07/17/2023 09:21	07/18/2023 09:49
K23G058-09	LF-5	Groundwater	07/17/2023 11:07	07/18/2023 09:49
K23G058-10	LF-6	Groundwater	07/17/2023 13:18	07/18/2023 09:49
K23G058-11	EBLANK2	Groundwater	07/17/2023 13:40	07/18/2023 09:49



Kanapaha Laboratory

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Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

SIS-1

K23G058-01 (Groundwater, Grab)

Collected: 07/13/2023 10:00 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	60.4	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	111	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	485	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

SIS-2

K23G058-02 (Groundwater, Grab)

Collected: 07/13/2023 11:08 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	9.5	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	97.5	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	363	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

SIS-3

K23G058-03 (Groundwater, Grab)

Collected: 07/13/2023 1:10 pm

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	19.5	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	59.3	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	236	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

SIS-4

K23G058-04 (Groundwater, Grab)

Collected: 07/14/2023 10:00 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	3.2 I	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	19.5	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	61.4	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	267	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

LF-1

K23G058-05 (Groundwater, Grab)

Collected: 07/13/2023 8:42 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	233	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	52.2	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	16.8	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	212	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

LF-2

K23G058-06 (Groundwater, Grab)

Collected: 07/14/2023 11:39 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	31.9	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.13 I	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	15.2	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	4.0 I	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	5.4	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	211	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

LF-3

K23G058-07 (Groundwater, Grab)

Collected: 07/17/2023 8:11 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	51.5	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	15.8	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	7.2	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	403	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

LF-4

K23G058-08 (Groundwater, Grab)

Collected: 07/17/2023 9:21 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	35.7	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 I	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	12.4	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	1.7 I	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	129	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

LF-5

K23G058-09 (Groundwater, Grab)

Collected: 07/17/2023 11:07 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	37.1	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	49.1	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	5.6	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	18.8	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	580	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

LF-6

K23G058-10 (Groundwater, Grab)

Collected: 07/17/2023 1:18 pm

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	19.6	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	55.0	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	1.8 I	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	4.2 I	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Total Dissolved Solids	211	10	40	mg/L	1	07/19/2023	07/19/2023	SM 2540C
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Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Kanapaha Laboratory

3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

EBLANK2

K23G058-11 (Groundwater, Grab)

Collected: 07/17/2023 1:40 pm

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Arsenic	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Barium	0.2 U	0.2	0.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Calcium	0.10 U	0.10	0.40	mg/L	1	09/05/2023	09/13/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	09/05/2023	09/13/2023	EPA 200.7

Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23I022 - EPA 200.7

Blank (B23I022-BLK1)					Prepared: 9/5/2023 Analyzed: 9/13/2023					
Molybdenum	2.5 U		2.5	10.0	ug/L					
Beryllium	0.10 U		0.10	0.40	ug/L					
Chromium	1.2 U		1.2	4.8	ug/L					
Selenium	4.0 U		4.0	16.0	ug/L					
Arsenic	2.5 U		2.5	10.0	ug/L					
Barium	0.2 U		0.2	0.8	ug/L					
Cadmium	0.3 U		0.3	1.2	ug/L					
Cobalt	1.0 U		1.0	4.0	ug/L					
Lead	3.0 U		3.0	12.0	ug/L					
Calcium	0.10 U		0.10	0.40	mg/L					

LCS (B23I022-BS1)					Prepared: 9/5/2023 Analyzed: 9/13/2023					
Cobalt	104				ug/L	99.6	104	90-110		
Calcium	25.5				mg/L	24.7	103	90-110		
Lead	102				ug/L	101	101	90-110		
Chromium	103				ug/L	99.9	103	90-110		
Cadmium	99.6				ug/L	100	99.6	90-110		
Molybdenum	104				ug/L	99.4	105	90-110		
Barium	102				ug/L	100	102	90-110		
Selenium	96.0				ug/L	98.6	97.3	90-110		
Beryllium	102				ug/L	101	101	90-110		
Arsenic	103				ug/L	100	103	90-110		

Duplicate (B23I022-DUP1)					Source: K23G058-05					Prepared: 9/5/2023 Analyzed: 9/13/2023				
Selenium	4.0 U		4.0	16.0	ug/L					ND			10.6	
Calcium	51.5		0.10	0.40	mg/L					52.2			0.996	
Arsenic	2.5 U		2.5	10.0	ug/L					ND			22.4	
Lead	3.0 U		3.0	12.0	ug/L					ND			NR	
Cobalt	1.0 U		1.0	4.0	ug/L					ND			22.2	
Barium	232		0.2	0.8	ug/L					233			0.325	
Chromium	1.2 U		1.2	4.8	ug/L					ND			NR	
Beryllium	0.10 U		0.10	0.40	ug/L					ND			NR	
Cadmium	0.3 U		0.3	1.2	ug/L					ND			NR	
Molybdenum	16.6		2.5	10.0	ug/L					16.8			0.550	

Duplicate (B23I022-DUP2)					Source: K23H010-01					Prepared: 9/5/2023 Analyzed: 9/13/2023				
Selenium	4.0 U		4.0	16.0	ug/L					ND			195	
Beryllium	0.10 U		0.10	0.40	ug/L					ND			47.1	
Molybdenum	6.6 I		2.5	10.0	ug/L					6.8			1.83	
Arsenic	4.0 I		2.5	10.0	ug/L					3.7			5.64	
Barium	33.4		0.2	0.8	ug/L					33.2			0.452	
Lead	3.0 U		3.0	12.0	ug/L					ND			NR	



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Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23I022 - EPA 200.7 (Continued)

Duplicate (B23I022-DUP2)	Source: K23H010-01					Prepared: 9/5/2023 Analyzed: 9/13/2023				
Calcium	109		0.10	0.40	mg/L		108			0.336
Cobalt	1.0 U		1.0	4.0	ug/L		ND			NR
Cadmium	0.3 U		0.3	1.2	ug/L		ND			NR
Chromium	4.7 I		1.2	4.8	ug/L		4.7			0.783

Matrix Spike (B23I022-MS1)	Source: K23G058-05					Prepared: 9/5/2023 Analyzed: 9/13/2023				
Arsenic	206		2.5	10.0	ug/L	200	ND	103	90-110	
Chromium	207		1.2	4.8	ug/L	200	ND	104	90-110	
Selenium	51.4		4.0	16.0	ug/L	50.0	ND	103	90-110	
Beryllium	204		0.10	0.40	ug/L	200	ND	102	90-110	
Molybdenum	554		2.5	10.0	ug/L	500	16.8	107	90-110	
Cadmium	48.9		0.3	1.2	ug/L	50.0	ND	97.8	90-110	
Lead	204		3.0	12.0	ug/L	200	ND	102	90-110	
Calcium	76.0		0.10	0.40	mg/L	25.0	52.2	95.2	90-110	
Barium	738		0.2	0.8	ug/L	500	233	101	90-110	
Cobalt	210		1.0	4.0	ug/L	200	ND	105	90-110	

Matrix Spike (B23I022-MS2)	Source: K23H010-01					Prepared: 9/5/2023 Analyzed: 9/13/2023				
Molybdenum	10700		50.0	200	ug/L	10000	ND	107	90-110	
Lead	4030		60.0	240	ug/L	4000	ND	101	90-110	
Cobalt	4200		20.0	80.0	ug/L	4000	ND	105	90-110	
Chromium	4110		24.0	96.0	ug/L	4000	ND	103	90-110	
Cadmium	982		6.0	24.0	ug/L	1000	ND	98.2	90-110	
Calcium	627		2.00	8.00	mg/L	500	108	104	90-110	
Selenium	1030		80.0	320	ug/L	1000	ND	103	90-110	
Arsenic	4090		50.0	200	ug/L	4000	ND	102	90-110	
Beryllium	4130		2.00	8.00	ug/L	4000	ND	103	90-110	
Barium	10200		4.0	16.0	ug/L	10000	33.2	102	90-110	



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Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

Wet Chemistry by APHA/EPA Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	% REC	% REC Limits	RSD	RSD Limit
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Batch B23G120 - DEFAULT PREP - Wet Chem

Blank (B23G120-BLK1) Prepared & Analyzed: 7/19/2023

Total Dissolved Solids	10 U	10	40	mg/L
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Duplicate (B23G120-DUP1) Prepared & Analyzed: 7/19/2023

Total Dissolved Solids	488	10	40	mg/L	485	0.436
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Reference (B23G120-SRM1) Prepared & Analyzed: 7/19/2023

Total Dissolved Solids	243		mg/L	240	101	90-110
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Project: Environmental - Deerhaven CCR Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 17:22

Notes and Definitions

<u>Qualifier</u>	<u>Description</u>
U	Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit.
NR	Not Reported
RSD	Relative Standard Deviation
U	Compound was analyzed for but not detected
N	Presumptive evidence of presence of material
L	Off-scale high. Actual value is known to be greater than value given
I	The reported value is between the laboratory MDL and the laboratory PQL
V	Analyte was detected in both the sample and the associated method blank

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:

I = Ice

N = Nitric Acid

S= Sulfuric Acid

Matrix:

GW = Groundwater

W = Water

Work Order
#K23G058
1 OF 1

Batch:	ENV3Q23				Container Preservation Type													
					N	N	I	I	I	N	N	N	N	N	I	I	N	
	Charles Davis				Analysis Requested													
	Sample ID	Matrix	Collection Date/Time	# of Ctns	Metals by 200.7 (Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Sr, V, Zn)	Metals by 200.7 (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (Mn, Mo, Ni, Na, Zn)	Chloride by 4500-Cl-C	Sulfate by 4500-SO4-E	Arsenic by 200.7						
	3Q23-R3T7	GW	7/18/2023 / 08:10	2	X	X	X	X	X									
	3Q23-EBLANK-1	GW	7-14-2023 / 10:26	1	X	X												
	3Q23-SIS-1	GW	7-13-2023 / 10:00	2		X			X	X								-01
	3Q23-SIS-2	GW	7-13-2023 / 11:08	2		X			X	X								-02
	3Q23-SIS-3	GW	7-13-2023 / 13:10	2		X			X	X								-03
	3Q23-SIS-4	GW	7-14-2023 / 10:00	2		X			X	X								-04
	3Q23-LF-1	GW	7-13-2023 / 08:42	2		X			X	X								-05
	3Q23-LF-2	GW	7-14-2023 / 11:39	2		X			X	X								-06
	3Q23-LF-3	GW	7-17-2023 / 08:11	2		X			X	X								-07
	3Q23-LF-4	GW	7-17-2023 / 09:21	2		X			X	X								-08
	3Q23-LF-5	GW	7-17-2023 / 11:07	2		X			X	X								-09
	3Q23-LF-6	GW	7-17-2023 / 13:18	2		X			X	X								-10
	3Q23-EBLANK-2	GW	7-17-2023 / 13:40	1		X				X								-11

Kimberly Denyer 7/18/23 09:49

Released By

Date/Time

Received By

Date/Time

Jahn M. Dill 07/18/23 0949

Released By

Date/Time

Received By

Date/Time

** Note - Samples for TDS received on ice. (JMD 07/18/23)*



3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

September 18, 2023

Jeff Boudreau
Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

RE: Environmental - Deerhaven Monitoring Wells

Enclosed are the results of analyses for samples received by the laboratory between 7/11/2023 and 7/19/2023. If you have any questions concerning this report, please feel free to contact me.

Please note that all results were determined in accordance with NELAP requirements. All data is subject to a degree of uncertainty. Kanapaha Lab uncertainty is based upon LCS quality control statistics.

Sincerely,

Jaclyn M Dihos
Laboratory Supervisor



Kanapaha Laboratory

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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
K23G032-01	R1T6 (MWD-1-6)	Groundwater	07/12/2023 12:54	07/12/2023 14:47
K23G032-02	R2T1 (MWB-2-1)	Groundwater	07/10/2023 12:21	07/11/2023 08:07
K23G032-03	R3T7 (MWI-3-7)	Groundwater	07/18/2023 08:10	07/18/2023 09:49
K23G032-04	R4T5B (MWI-4-5)	Groundwater	07/12/2023 08:48	07/12/2023 14:47
K23G032-05	R6T1B (MWD-6-1)	Groundwater	07/10/2023 09:07	07/11/2023 08:07
K23G032-06	R6T4B (MWI-6-4)	Groundwater	07/12/2023 10:29	07/12/2023 14:47
K23G032-07	R6T8B (MWI-6-8)	Groundwater	07/18/2023 10:34	07/19/2023 08:14
K23G032-08	R6T12 (MWD-6-12)	Groundwater	07/18/2023 14:24	07/19/2023 08:14
K23G032-09	R8T10 (MWC-8-10)	Groundwater	07/19/2023 12:09	07/19/2023 14:28
K23G032-10	R9T5B (MWI-9-5)	Groundwater	07/18/2023 09:25	07/19/2023 08:14
K23G032-11	R10T8 (MWC-10-8)	Groundwater	07/19/2023 10:04	07/19/2023 14:28
K23G032-12	R11T4B (MWC-11-4)	Groundwater	07/19/2023 08:50	07/19/2023 14:28
K23G032-13	DEEP-1 (MWC-DEEP)	Groundwater	07/18/2023 13:36	07/19/2023 08:14
K23G032-14	EBLANK1	Water	07/14/2023 10:26	07/18/2023 09:49
K23G032-15	BARNSTEAD	Water	07/10/2023 07:05	07/11/2023 08:07



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Project: Environmental - Deerhaven Monitoring Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

R4T5B (MWI-4-5)

K23G032-04 (Groundwater, Grab)

Collected: 07/12/2023 8:48 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Aluminum	132	5.0	20.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Arsenic	2.5 U	2.5	10.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Barium	9.5	0.2	0.8	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Calcium	78.5	0.10	0.40	mg/L	1	08/10/2023	09/01/2023	EPA 200.7
Chromium	1.8 I	1.2	4.8	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Copper	1.5 U	1.5	6.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Iron	13000	42.0	168	ug/L	10	08/10/2023	09/01/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Magnesium	16.9	0.01	0.04	mg/L	1	08/10/2023	09/01/2023	EPA 200.7
Manganese	74.6	1.0	4.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Nickel	1.0 U	1.0	4.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Silver	0.6 U	0.6	2.4	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Strontium	78.3	0.3	1.2	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Vanadium	3.0 U	3.0	12.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Zinc	2.1 U	2.1	8.4	ug/L	1	08/10/2023	09/01/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Color	120	25	100	Color Units	5	07/13/2023	07/13/2023	SM 2120B
Total Dissolved Solids	367	10	40	mg/L	1	07/13/2023	07/13/2023	SM 2540C
TSS	1 U	1	4	mg/L	1	07/13/2023	07/13/2023	SM 2540D

Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Project: Environmental - Deerhaven Monitoring Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

R6T4B (MWI-6-4)

K23G032-06 (Groundwater, Grab)

Collected: 07/12/2023 10:29 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Aluminum	94.7	5.0	20.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Arsenic	2.5 U	2.5	10.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Barium	20.6	0.2	0.8	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Calcium	55.3	0.10	0.40	mg/L	1	08/10/2023	09/01/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Copper	1.5 U	1.5	6.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Iron	1040	4.2	16.8	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Magnesium	6.49	0.01	0.04	mg/L	1	08/10/2023	09/01/2023	EPA 200.7
Manganese	45.4	1.0	4.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Nickel	2.7 I	1.0	4.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Silver	0.6 U	0.6	2.4	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Strontium	106	0.3	1.2	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Vanadium	14.8	3.0	12.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Zinc	2.1 U	2.1	8.4	ug/L	1	08/10/2023	09/01/2023	EPA 200.7

Wet Chemistry by APHA/EPA Methods

Color	74	10	40	Color Units	2	07/13/2023	07/13/2023	SM 2120B
Total Dissolved Solids	275	10	40	mg/L	1	07/13/2023	07/13/2023	SM 2540C
TSS	1 U	1	4	mg/L	1	07/13/2023	07/13/2023	SM 2540D

Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Kanapaha Laboratory

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(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

EBLANK1

K23G032-14 (Water, Grab)

Collected: 07/14/2023 10:26 am

Analyte	Result Qual	MDL	PQL	Units	Dil	Prepared	Analyzed	Method
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Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

Aluminum	5.0 U	5.0	20.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Arsenic	2.5 U	2.5	10.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Barium	0.2 U	0.2	0.8	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Beryllium	0.10 U	0.10	0.40	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Cadmium	0.3 U	0.3	1.2	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Calcium	0.10 U	0.10	0.40	mg/L	1	08/10/2023	09/01/2023	EPA 200.7
Chromium	1.2 U	1.2	4.8	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Cobalt	1.0 U	1.0	4.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Copper	1.5 U	1.5	6.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Iron	4.2 U	4.2	16.8	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Lead	3.0 U	3.0	12.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Magnesium	0.01 U	0.01	0.04	mg/L	1	08/10/2023	09/01/2023	EPA 200.7
Manganese	1.0 U	1.0	4.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Molybdenum	2.5 U	2.5	10.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Nickel	1.0 U	1.0	4.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Selenium	4.0 U	4.0	16.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Silver	0.6 U	0.6	2.4	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Strontium	0.3 U	0.3	1.2	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Vanadium	3.0 U	3.0	12.0	ug/L	1	08/10/2023	09/01/2023	EPA 200.7
Zinc	2.1 U	2.1	8.4	ug/L	1	08/10/2023	09/01/2023	EPA 200.7

Laboratory: Pace Analytical

EPA 245.1

Mercury	0.090 U	0.090	0.20	ug/L	1	08/03/2023	08/03/2023	EPA 245.1
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Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	% REC	% REC Limits	RSD	RSD Limit
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Batch B23H074 - EPA 200.7

Blank (B23H074-BLK1)

Prepared: 8/10/2023 Analyzed: 9/1/2023

Selenium	4.0 U		4.0	16.0	ug/L						
Iron	4.2 U		4.2	16.8	ug/L						
Copper	1.5 U		1.5	6.0	ug/L						
Cobalt	1.0 U		1.0	4.0	ug/L						
Lead	3.0 U		3.0	12.0	ug/L						
Barium	0.2 U		0.2	0.8	ug/L						
Magnesium	0.01 U		0.01	0.04	mg/L						
Arsenic	2.5 U		2.5	10.0	ug/L						
Molybdenum	2.5 U		2.5	10.0	ug/L						
Aluminum	5.0 U		5.0	20.0	ug/L						
Strontium	0.3 U		0.3	1.2	ug/L						
Silver	0.6 U		0.6	2.4	ug/L						
Vanadium	3.0 U		3.0	12.0	ug/L						
Chromium	1.2 U		1.2	4.8	ug/L						
Zinc	2.1 U		2.1	8.4	ug/L						
Calcium	0.10 U		0.10	0.40	mg/L						
Beryllium	0.10 U		0.10	0.40	ug/L						
Manganese	1.0 U		1.0	4.0	ug/L						
Nickel	1.0 U		1.0	4.0	ug/L						
Cadmium	0.3 U		0.3	1.2	ug/L						

LCS (B23H074-BS1)

Prepared: 8/10/2023 Analyzed: 9/1/2023

Aluminum	106		ug/L	100		106	90-110
Vanadium	105		ug/L	99.5		105	90-110
Arsenic	101		ug/L	100		101	90-110
Magnesium	26.1		mg/L	24.6		106	90-110
Nickel	104		ug/L	101		103	90-110
Barium	104		ug/L	100		104	90-110
Lead	101		ug/L	101		99.9	90-110
Beryllium	105		ug/L	101		104	90-110
Copper	106		ug/L	99.8		106	90-110
Cobalt	105		ug/L	99.6		106	90-110
Selenium	96.4		ug/L	98.6		97.8	90-110
Silver	51.4		ug/L	50.0		103	90-110
Calcium	25.9		mg/L	24.7		105	90-110
Chromium	96.4		ug/L	99.9		96.5	90-110
Manganese	106		ug/L	101		105	90-110
Zinc	101		ug/L	100		101	90-110
Strontium	104		ug/L	100		104	90-110
Iron	104		ug/L	101		103	90-110
Cadmium	100		ug/L	100		100	90-110
Molybdenum	104		ug/L	99.4		104	90-110



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Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	% REC	% REC Limits	RSD	RSD Limit
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Batch B23H074 - EPA 200.7 (Continued)

Duplicate (B23H074-DUP1)	Source: K23G032-03					Prepared: 8/10/2023 Analyzed: 9/1/2023				
Arsenic	2.5 U		2.5	10.0	ug/L		ND			1.81
Cadmium	0.3 U		0.3	1.2	ug/L		ND			NR
Strontium	242		0.3	1.2	ug/L		238			0.924
Aluminum	11.5 I		5.0	20.0	ug/L		10.4			7.01
Barium	2.0		0.2	0.8	ug/L		1.9			1.58
Chromium	1.2 U		1.2	4.8	ug/L		ND			13.0
Calcium	71.4		0.10	0.40	mg/L		70.5			0.900
Cobalt	1.0 U		1.0	4.0	ug/L		ND			NR
Vanadium	7.1 I		3.0	12.0	ug/L		6.8			3.10
Beryllium	0.10 U		0.10	0.40	ug/L		ND			44.4
Lead	3.0 U		3.0	12.0	ug/L		ND			109
Selenium	4.0 U		4.0	16.0	ug/L		ND			101
Manganese	42.6		1.0	4.0	ug/L		41.5			1.76
Zinc	2.1 U		2.1	8.4	ug/L		ND			6.13
Silver	0.6 U		0.6	2.4	ug/L		ND			NR
Copper	1.5 U		1.5	6.0	ug/L		ND			51.5
Iron	1640		4.2	16.8	ug/L		1610			1.32
Magnesium	11.8		0.01	0.04	mg/L		11.6			1.33
Molybdenum	12.4		2.5	10.0	ug/L		12.2			1.37
Nickel	3.9 I		1.0	4.0	ug/L		3.7			2.68

Duplicate (B23H074-DUP2)	Source: K23G032-11					Prepared: 8/10/2023 Analyzed: 9/1/2023				
Magnesium	2.70		0.01	0.04	mg/L		2.71			0.288
Manganese	15.3		1.0	4.0	ug/L		15.4			0.180
Molybdenum	2.5 U		2.5	10.0	ug/L		ND			NR
Lead	3.0 U		3.0	12.0	ug/L		ND			NR
Selenium	4.0 U		4.0	16.0	ug/L		ND			NR
Silver	0.6 U		0.6	2.4	ug/L		ND			NR
Vanadium	3.0 U		3.0	12.0	ug/L		ND			NR
Nickel	1.0 U		1.0	4.0	ug/L		ND			NR
Iron	216		4.2	16.8	ug/L		218			0.616
Copper	1.5 U		1.5	6.0	ug/L		ND			NR
Chromium	1.2 U		1.2	4.8	ug/L		ND			7.01
Zinc	2.1 U		2.1	8.4	ug/L		ND			NR
Calcium	16.6		0.10	0.40	mg/L		16.6			0.107
Cadmium	0.3 U		0.3	1.2	ug/L		ND			NR
Beryllium	0.10 U		0.10	0.40	ug/L		ND			29.4
Barium	2.8		0.2	0.8	ug/L		2.8			0.0756
Arsenic	2.5 U		2.5	10.0	ug/L		ND			29.7
Aluminum	13.4 I		5.0	20.0	ug/L		13.5			0.529
Cobalt	1.0 U		1.0	4.0	ug/L		ND			NR
Strontium	16.9		0.3	1.2	ug/L		16.9			0.284



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Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

Metals by EPA 200 Series Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23H074 - EPA 200.7 (Continued)

Matrix Spike (B23H074-MS1)	Source: K23G032-03						Prepared: 8/10/2023 Analyzed: 9/1/2023			
Calcium	96.7		0.10	0.40	mg/L	25.0	70.5	105	90-110	
Aluminum	521		5.0	20.0	ug/L	500	10.4	102	90-110	
Magnesium	37.3		0.01	0.04	mg/L	25.0	11.6	103	90-110	
Arsenic	205		2.5	10.0	ug/L	200	ND	102	90-110	
Copper	209		1.5	6.0	ug/L	200	ND	105	90-110	
Chromium	195		1.2	4.8	ug/L	200	ND	97.4	90-110	
Cobalt	211		1.0	4.0	ug/L	200	ND	106	90-110	
Nickel	211		1.0	4.0	ug/L	200	3.7	103	90-110	
Vanadium	516		3.0	12.0	ug/L	500	6.8	102	90-110	
Lead	204		3.0	12.0	ug/L	200	ND	102	90-110	
Cadmium	48.9		0.3	1.2	ug/L	50.0	ND	97.8	90-110	
Manganese	249		1.0	4.0	ug/L	200	41.5	104	90-110	
Molybdenum	544		2.5	10.0	ug/L	500	12.2	106	90-110	
Beryllium	209		0.10	0.40	ug/L	200	ND	105	90-110	
Iron	2660		4.2	16.8	ug/L	1000	1610	105	90-110	
Selenium	48.3		4.0	16.0	ug/L	50.0	ND	96.6	90-110	
Barium	515		0.2	0.8	ug/L	500	1.9	103	90-110	
Zinc	197		2.1	8.4	ug/L	200	ND	98.4	90-110	
Silver	47.6		0.6	2.4	ug/L	50.0	ND	95.1	90-110	
Strontium	773		0.3	1.2	ug/L	500	238	107	90-110	

Matrix Spike (B23H074-MS2)	Source: K23G032-11						Prepared: 8/10/2023 Analyzed: 9/1/2023			
Cadmium	48.4		0.3	1.2	ug/L	50.0	ND	96.8	90-110	
Molybdenum	522		2.5	10.0	ug/L	500	ND	104	90-110	
Cobalt	207		1.0	4.0	ug/L	200	ND	103	90-110	
Chromium	192		1.2	4.8	ug/L	200	ND	96.1	90-110	
Calcium	42.5		0.10	0.40	mg/L	25.0	16.6	103	90-110	
Vanadium	499		3.0	12.0	ug/L	500	ND	99.7	90-110	
Arsenic	198		2.5	10.0	ug/L	200	ND	98.8	90-110	
Iron	1220		4.2	16.8	ug/L	1000	218	100	90-110	
Silver	46.1		0.6	2.4	ug/L	50.0	ND	92.2	90-110	
Copper	200		1.5	6.0	ug/L	200	ND	99.9	90-110	
Beryllium	205		0.10	0.40	ug/L	200	ND	102	90-110	
Aluminum	519		5.0	20.0	ug/L	500	13.5	101	90-110	
Selenium	48.2		4.0	16.0	ug/L	50.0	ND	96.3	90-110	
Magnesium	28.2		0.01	0.04	mg/L	25.0	2.71	102	90-110	
Manganese	219		1.0	4.0	ug/L	200	15.4	102	90-110	
Barium	503		0.2	0.8	ug/L	500	2.8	100	90-110	
Nickel	204		1.0	4.0	ug/L	200	ND	102	90-110	
Zinc	192		2.1	8.4	ug/L	200	ND	95.8	90-110	
Strontium	528		0.3	1.2	ug/L	500	16.9	102	90-110	
Lead	198		3.0	12.0	ug/L	200	ND	99.0	90-110	



Deerhaven Laboratory
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Project: Environmental - Deerhaven Monitoring Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

Wet Chemistry by APHA/EPA Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23G057 - DEFAULT PREP - Wet Chem

Duplicate (B23G057-DUP1)	Source: K23G032-02					Prepared & Analyzed: 7/11/2023				
Color	5 U		5	20	Color Units	ND				

Reference (B23G057-SRM1)						Prepared & Analyzed: 7/11/2023				
Color	31		5	20	Color Units	30.0	103	90-110	0.00	

Reference (B23G057-SRM2)						Prepared & Analyzed: 7/11/2023				
Color	31		5	20	Color Units	30.0	103	90-110	0.00	

Batch B23G070 - DEFAULT PREP - Wet Chem

Blank (B23G070-BLK1)						Prepared & Analyzed: 7/12/2023				
TSS	1 U		1	4	mg/L					

LCS (B23G070-BS1)						Prepared & Analyzed: 7/12/2023				
TSS	79		mg/L	100		79.0	77.1-110	0.00		

Duplicate (B23G070-DUP1)	Source: K23G036-04					Prepared & Analyzed: 7/12/2023					
TSS	1 U		1	4	mg/L	ND					

Duplicate (B23G070-DUP2)	Source: K23G032-02					Prepared & Analyzed: 7/12/2023					
TSS	1 U		1	4	mg/L	ND					

Batch B23G073 - DEFAULT PREP - Wet Chem

Blank (B23G073-BLK1)						Prepared & Analyzed: 7/13/2023				
Total Dissolved Solids	10 U		10	40	mg/L					

Duplicate (B23G073-DUP1)	Source: K23G032-01					Prepared & Analyzed: 7/13/2023					
Total Dissolved Solids	310		10	40	mg/L	305					

Reference (B23G073-SRM1)						Prepared & Analyzed: 7/13/2023				
Total Dissolved Solids	234		mg/L	240		97.5	90-110	0.00		

Batch B23G074 - DEFAULT PREP - Wet Chem

Duplicate (B23G074-DUP1)	Source: K23G032-04					Prepared & Analyzed: 7/13/2023					
Color	120		25	100	Color Units	120					



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Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

Wet Chemistry by APHA/EPA Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23G074 - DEFAULT PREP - Wet Chem (Continued)

Duplicate (B23G074-DUP1)	Source: K23G032-04					Prepared & Analyzed: 7/13/2023				
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Reference (B23G074-SRM1)						Prepared & Analyzed: 7/13/2023				
Color	30	5	20	Color Units	30.0	100	90-110	0.00		

Reference (B23G074-SRM2)						Prepared & Analyzed: 7/13/2023				
Color	30	5	20	Color Units	30.0	100	90-110	0.00		

Batch B23G079 - DEFAULT PREP - Wet Chem

Blank (B23G079-BLK1)						Prepared & Analyzed: 7/13/2023				
TSS	1 U	1	4	mg/L						

LCS (B23G079-BS1)						Prepared & Analyzed: 7/13/2023				
TSS	92		mg/L	100	92.0	77.1-110	0.00			

Duplicate (B23G079-DUP1)	Source: K23G041-04					Prepared & Analyzed: 7/13/2023				
TSS	21	1	4	mg/L	2	11.5				

Batch B23G110 - DEFAULT PREP - Wet Chem

Duplicate (B23G110-DUP1)	Source: K23G032-03					Prepared & Analyzed: 7/18/2023				
Color	141	5	20	Color Units	13	5.24				

Reference (B23G110-SRM1)						Prepared & Analyzed: 7/18/2023				
Color	31	5	20	Color Units	30.0	103	90-110	0.00		

Reference (B23G110-SRM2)						Prepared & Analyzed: 7/18/2023				
Color	31	5	20	Color Units	30.0	103	90-110	0.00		

Batch B23G119 - DEFAULT PREP - Wet Chem

Duplicate (B23G119-DUP1)	Source: K23G032-08					Prepared & Analyzed: 7/19/2023				
Color	47	5	20	Color Units	47	0.00				



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Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

Wet Chemistry by APHA/EPA Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	%REC	% REC Limits	RSD	RSD Limit
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Batch B23G119 - DEFAULT PREP - Wet Chem (Continued)

Reference (B23G119-SRM1)						Prepared & Analyzed: 7/19/2023				
Color	31		5	20	Color Units	30.0		103	90-110	0.00

Reference (B23G119-SRM2)						Prepared & Analyzed: 7/19/2023				
Color	31		5	20	Color Units	30.0		103	90-110	0.00

Batch B23G121 - DEFAULT PREP - Wet Chem

Duplicate (B23G121-DUP1)						Source: K23G032-09 Prepared & Analyzed: 7/20/2023				
Color	115		25	100	Color Units		115			0.00

Reference (B23G121-SRM1)						Prepared & Analyzed: 7/20/2023				
Color	30		5	20	Color Units	30.0		100	90-110	0.00

Reference (B23G121-SRM2)						Prepared & Analyzed: 7/20/2023				
Color	30		5	20	Color Units	30.0		100	90-110	0.00

Batch B23G125 - DEFAULT PREP - Wet Chem

Blank (B23G125-BLK1)						Prepared & Analyzed: 7/20/2023				
TSS	1 U		1	4	mg/L					

LCS (B23G125-BS1)						Prepared & Analyzed: 7/20/2023				
TSS	106			mg/L	100		106		77.1-110	

Duplicate (B23G125-DUP1)						Source: K23G064-04 Prepared & Analyzed: 7/20/2023				
TSS	11		1	4	mg/L		ND			7.44

Duplicate (B23G125-DUP2)						Source: K23G063-04 Prepared & Analyzed: 7/20/2023				
TSS	1 U		1	4	mg/L		ND			47.1

Batch B23G145 - DEFAULT PREP - Wet Chem

Blank (B23G145-BLK1)						Prepared & Analyzed: 7/24/2023				
Total Dissolved Solids	10 U		10	40	mg/L					



Kanapaha Laboratory

3901 South West 63rd Blvd
Gainesville, FL 32608
(352) 393-6777

Florida Department of Health Certification E52099

Deerhaven Laboratory
Station D-38
Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

Wet Chemistry by APHA/EPA Methods - Quality Control

Laboratory: Kanapaha Laboratory

Analyte	Result	Qual	MDL	PQL	Units	Spike Level	Source Result	% REC	% REC Limits	RSD	RSD Limit
---------	--------	------	-----	-----	-------	-------------	---------------	-------	--------------	-----	-----------

Batch B23G145 - DEFAULT PREP - Wet Chem (Continued)

Duplicate (B23G145-DUP1)	Source: K23G032-07				Prepared & Analyzed: 7/24/2023			
Total Dissolved Solids	390		10	40	mg/L	392		0.362
<hr/>								
Reference (B23G145-SRM1)					Prepared & Analyzed: 7/24/2023			
Total Dissolved Solids	238				mg/L	240		99.2 90-110



Kanapaha Laboratory

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Gainesville, FL/USA 32614-7117

Project: Environmental - Deerhaven Monitoring Wells
Project Number: 3Q23
Project Manager: Jeff Boudreau

Reported:
09/18/2023 11:10

Notes and Definitions

<u>Qualifier</u>	<u>Description</u>
U	Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit.
NR	Not Reported
RSD	Relative Standard Deviation
U	Compound was analyzed for but not detected
N	Presumptive evidence of presence of material
L	Off-scale high. Actual value is known to be greater than value given
I	The reported value is between the laboratory MDL and the laboratory PQL
V	Analyte was detected in both the sample and the associated method blank

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:
I = Ice
N = Nitric Acid
S = Sulfuric Acid

Matrix:
GW = Groundwater
W = Water

Work Order
#K23G032
1 OF 5

Batch:	ENV3Q23				Container Preservation Type											
					N	N	I	I	I	N	N	N	N	N	I	I
Sample Collector(s):	Kent Brakefield, Charles Davis				Analysis Requested											
					Metals by 200.7 (Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Sr, V, Zn)	Mercury by 245.1	Color by 2120B	TSS by 2540D	TDS by 2540C	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (Mn, Mo, Ni, Na, Zn)	Chloride by 4500-Cl-C	Sulfate by 4500-SO4-E
Sample ID	Matrix	Collection Date/Time	# of Ctns													
3Q23-R2T1	GW	7-10-2023 / 12:21	2	X	X	X	X	X	X							
3Q23-R6T1	GW	7/10/2023 / 09:07	2	X	X	X	X	X	X							
3Q23-BARNSTEAD	GW	7-10-2023 / 07:05	1	X												

Kimberly Chlorine 7/11/23 / 8:07 *John McDonnell* 07/11/23 0807
 Released By Date/Time Received By Date/Time

Released By Date/Time Received By Date/Time

* Note - Barnstead Sample - unpreserved sample for chloride/sulfate analysis was received. Notified DH Laboratory on 07/11/23. Will place unpreserved sample in cold room and switch for HNO3 preserved sample. *JMD* 07/11/23

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:

$| = |_{\text{ce}}$

N = Nitric Acid

S= Sulfuric Acid

Matrix:

GW = Groundwater

W = Water

Work Order
#K23G032

2 OF 5

KBraleyfield
Released By

7/12/23 14:47

Released By

Received By

8/12/23 1447

Date/Time

Released By

Date/Time

Received By

Date/Time

*Note: Times on COC/Bottles did not match for R4T5 and R6T4. Time that was recorded on bottle was used because that time is recorded in the field during collection. JWD 07/13/23

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:

I = Ice

N = Nitric Acid

S= Sulfuric Acid

Matrix:

GW = Groundwater

W = Water

Work Order
#K23G032

3 of 5

Sample Collector(s):	Batch:	ENV3Q23				Container Preservation Type													
						N	N	I	I	I	I	N	N	N	N	N	I	I	N
		Charles Davis				Analysis Requested													
Sample ID	Matrix	Collection Date/Time	# of Ctns																
3Q23-R3T7	GW	7/18/2023 / 08:10	2	X															
3Q23-EBLANK-1	GW	7-14-2023 / 10:26	1	X	X														
3Q23-SIS-1	GW	7-13-2023 / 10:00	2			X				X	X								
3Q23-SIS-2	GW	7-13-2023 / 11:08	2			X				X	X								
3Q23-SIS-3	GW	7-13-2023 / 13:10	2			X				X	X								
3Q23-SIS-4	GW	7-14-2023 / 10:00	2			X				X	X								
3Q23-LF-1	GW	7-13-2023 / 08:42	2			X				X	X								
3Q23-LF-2	GW	7-14-2023 / 11:39	2			X				X	X								
3Q23-LF-3	GW	7-17-2023 / 08:11	2			X				X	X								
3Q23-LF-4	GW	7-17-2023 / 09:21	2			X				X	X								
3Q23-LF-5	GW	7-17-2023 / 11:07	2			X				X	X								
3Q23-LF-6	GW	7-17-2023 / 13:18	2			X				X	X								
3Q23-EBLANK-2	GW	7-17-2023 / 13:40	1			X				X									

Kimberly Alonzo 7/18/23 9:49

John M. Doh 07/18/23 0949

Released By

Date/Time

Received By

Date/Time

Released By

Date/Time

Received By

Date/Time

K23G032
Sample
ID

-03
-14

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:
I = Ice
N = Nitric Acid
S= Sulfuric Acid

Matrix:
GW = Groundwater
W = Water

Work Order
#K23G032
4 OF 5

Batch:	ENV3Q23				Container Preservation Type															
	Sample Collector(s):	CHARLES DAVIS				N	N	I	I	I	N	N	N	N	N	I	I	N		
Sample ID	Matrix	Collection Date/Time	# of Ctns		Metals by 200.7 (Al, As, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Sr, V, Zn) Mercury by 245.1	X	X	X	X	X	Color by 2120B	TSS by 2540D	TDS by 2540C	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Ca, Cr, Co, Pb, Mo, Se)	Chloride by 4500-Cl-C	Sulfate by 4500-SO4-E	Arsenic by 200.7
3Q23-R6T8	GW	7-18-2023 / 10:34	2			X	X	X	X	X										
3Q23-R6T12	GW	7-18-2023 / 14:24	2			X	X	X	X	X										
3Q23-R9T5	GW	7-18-2023 / 09:25	2			X	X	X	X	X										
3Q23-DEEP	GW	7-18-2023 / 13:36	2			X	X	X	X	X										

Kimberly L. Lissner 7/19/23 8:14

Jacy M. Doh 07/19/23 08:14

Sample
ID
-07
-08
-10
-13

Released By

Date/Time

Received By

Date/Time

Released By

Date/Time

Received By

Date/Time

*Note - Barnstead samples were switched out. - JMD 07/19/23

CHAIN OF CUSTODY - Analytical Request Document

Deerhaven Generating Station
10001 NW 13th St., Gainesville, FL 32653

Preservations:

I = Ice
N = Nitric Acid
S= Sulfuric Acid

Matrix:
GW = Groundwater
W = Water

*Work Order
#K23G032
5 of 5*

Batch:	ENV3Q23				Container Preservation Type												
					N	N	I	I	I	N	N	N	N	N	I	I	N
Sample Collector(s):	JC Dunn																
Sample ID	Matrix	Collection Date/Time	# of Ctns		Metals by 200.7 (Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Sr, V, Zn)	Mercury by 245.1	Color by 2120B	TSS by 2540D	TDS by 2540C	Metals by 200.7 (As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Cd, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (As, Ba, Be, Ca, Cr, Co, Pb, Mo, Se)	Metals by 200.7 (Mn, Mo, Ni, Na, Zn)	Chloride by 4500-Cl-C	Sulfate by 4500-SO4-E	Arsenic by 200.7	
3Q23-R8T10	GW	7/19/23 @ 12:09	2	X	X	X	X	X	X								
3Q23-R10T8	GW	7/19/23 @ 10:04	2	X	X	X	X	X	X								
3Q23-R11T4	GW	7/19/23 @ 8:50	2	X	X	X	X	X	X								

JC Dunn

Released By

7/19/23

Date/Time

Jaclyn M. Doh

Received By

07/19/23 1428

Date/Time

Released By

Date/Time

Received By

Date/Time

*Sample ID
-09
-11
-12*

Attachment B

Groundwater Sampling Field and Calibration Logs

DGS Groundwater Sampling Log



WELL ID:	R4T5	Location:	Latitude: 29°45'52.14"	Longitude: -82°23'33.18"	MSL @ TOC	Date In Service
Quarter:	1Q23	Date:	1-8-23	Well Type:	I	

Purging Data

♦ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): K. MORRISON		Sampler(s) Signatures: Khanum				
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 12.0 Time: 10:24			Sampling completed Tube Dpth(ft): 12.0 Time: 10:50	
Field Decon: NO	Field Filtered: NO	Duplicate: YES	NO	Acid ID# HNO3: DS0033	H2SO4: DS0032	
Sample Container Specification		Sample Preservation			Intended Analysis or method	
Sample ID:	Material	Vol(mL)	Preservative	Vol Added		
1Q23 R4T5-A	PE	4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
1Q23 R4T5-B	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
1Q23 R4T5-C	PE	250	H2SO4/Chill	0.5 mL	1.3	Pace: NO2/NO3 and TOC
1Q23 R4T5-D	PE	1000	HNO3	2 mL	1.3	Pace: Gross Alpha
1Q23 R4T5-E	PE	250 (500)	HNO3	0.5/1.0 mL	1.4	Kanapaha: Metals
1Q23 R4T5-F	PE	250	HNO3	0.5 mL	1.3	Pace: Metals
1Q23 R4T5-G	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth is 1/2ft below depth to water for every instance.					Well found locked on arrival	Well left locked on departure
Temperature: 61°F		Winds: 4 mph NW	Cloud Cover: Sunny	Precip: 0/1A		
Remarks:						

DGS Groundwater Sampling Log



WELL ID:	R6T4	Location:	Latitude: 29°46'00.90"	Longitude: -82°23'40.20"	MSL @ TOC	Date In Service: 7-93
Quarter:	1Q23	Date:	1-8-23		Well Type:	I

Purging Data

Diameter(in)	2	Total well depth(ft)	14.13	Depth to water(ft)	10.55 ft	Well capacity(L/ft)	0.6				
Distance from TOC to top of screen	4.13	ft.	Purging Method: PP	1.6	Equipment Volume = 750 mL						
1 WELL VOLUME(L)=(Total Well Depth-Depth to water)X Well Capacity			Time of Depth Meter Decon:	9:56	10m 8-23						
Well Vol = (14.13 - 10.55) X 0.6 = 6.11 L						1/4 well vol.= 1.5					
Init Tubing Dpth(ft): 4.45	Final Tube Dpth(ft): 4.00	Purge Start Time: 15:59	Purge Stop time: 16:20	Total Volume Purged	210 L						
Time	Volume Purged (L)	Cumul. Volume Purged (L)	Purge rate mL/min	Depth to water (ft)	pH (SU)	Temp (°C)	Cond (μmho)	Diss O2 (mg/L)	Turbidity (ntu)	ORP (mv)	Observed odor or color
					± 0.2§	± 0.2§	± 5%§	20% sat§	20 max§		
16:12	0.20	6.20	500	4.38	6.33	20.08	478.8	0.30	0.57	6.8	Sulfur odor- Clear-
16:15	1.50	7.70	500	4.38	6.27	20.08	477.5	0.28	0.44	-13.8	yellowish
16:18	1.50	9.20	500	4.38	6.20	20.22	490.9	0.23	0.50	-26.3	

♦ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): K. MORRISON	Sampler(s) Signature: K. Morrison					
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dph(ft): 4.90	Time: 15:22	Sampling completed Tube Dph(ft): 4.90	Time: 16:40	
Field Decon: NO	Field Filtered: NO	Duplicate: YES	NO	Acid ID# HNO3: DS0038	H2SO4: DS0032	
Sample Container Specification		Sample Preservation			Intended Analysis or method	
Sample ID:	Material	Vol(mL)	Preservative	Vol Added		
1Q23 R6T4 - A	PE	4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
1Q23 R6T4 B	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
1Q23 R6T4 C	PE	250	H2SO4/Chill	0.5 mL	1.6	Pace: NO2/NO3 and TOC
1Q23 R6T4 D	PE	1000	HNO3	2 mL	1.6	Pace: Gross Alpha
1Q23 R6T4 E	PE	250/500	HNO3	0.5/1.0 mL	1.6	Kanapaha: Metals
1Q23 R6T4 F	PE	250	HNO3	0.5 mL	1.6	Pace: Metals
1Q23 R6T4 N	PE	2000	HNO3	4 mL	1.6	Pace: Radium 226+228
Tubing Depth is 1/2 ft below depth to water for every instance.		Well found locked on arrival		Well left locked on departure		
Temperature: 71°F Winds: 4 mph NE		Cloud Cover: Sunny		Precip: 1/4		
Remarks:						

DGS Groundwater Sampling Log



WELL ID: EBLANK |

Quarter: 1Q23

Date: 11/10/23

Purging Data

Purging Method: PP Equipment Volume = 750 mL

Well Collected At: SIS 1 Purge Start Time: N/A
Time of Depth Meter Decon: 8:15 Purge Stop time: N/A

▲ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): K. MORRISON		Sampler(s) Signatures: K. Morrison				
Sampling Method: PP		Tube Material: PP/S		Sampling Started Time: 8:17	Sampling completed Time: 8:19	
Field Decon: NO	Field Filtered: NO	Duplicate: YES	NO	Acid ID# HNO3: DS0038	H2SO4: DS0032	
Sample Container Specification		Sample Preservation			Intended Analysis or method	
ID:	Material	Vol mL	Preservative	Vol Addt	final pH	
1Q23 EBlank 1-B	PE	250	Chill <6 C	n/a	n/a	Pace Anions
1Q23 EBlank 1-C	PE	250	H2SO4+Chill	0.5 mL	1.6	Pace NO2/NO3 and TOC
1Q23 EBlank 1-D	PE	1000	HNO3	2 mL	1.3	Pace Gross Alpha
1Q23 EBlank 1-E	PE	250 / 500	HNO3	0.5 / 1 mL	1.6	Kanapaha Metals
1Q23 EBlank 1-J	PE	250	HNO3	0.5 mL	1.6	Pace Metals
	PE	2000	HNO3	4 mL		Pace Radium 226+228

✓ Well found locked on arrival ✓ Well left locked on departure
Temperature: 49°F Winds: Calm Cloud Cover: Cloudy Precip: N/A
Remarks:

DGS Groundwater Sampling Log



WELL ID:	SIS-1	Location:	Latitude: 29°46'00.1308"	Longitude: -82°23'33.3204"	MSL @ TOC	Date In Service 2017
Quarter:	1Q23	Date:	1/10/23	Well Type:	U	

Purging Data

10⁻¹ · 10⁻²³

♦ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): <u>JCDavis</u>		Sampler(s) Signatures: <u>J Davis</u>				
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Depth(ft): 9'	Time: 9:19			
		Sampling completed Tube Depth(ft): 9'	Time: 9:37			
Field Decon: NO	Field Filtered: NO	Duplicate: YES (NO)	Acid ID# HNO3: DSW38 H2SO4: DSD42			
Sample Container Specification		Sample Preservation		Intended Analysis or method		
Sample ID:	Material	Vol(mL)	Preservative			Vol Added
1Q23-SIS1	F	PE 4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
1Q23-SIS1	K	PE 250	Chill <6 C	n/a	n/a	Pace: Anions
1Q23-SIS1	PE	250	H2SO4/Chill	0.5 mL	1.3	Pace: NO2/NO3 and TOC
1Q23-SIS1	PE	1000	HNO3	2 mL	1.3	Pace: Gross Alpha
1Q23-SIS1-6	PE	250/500	HNO3	0.5/1.0 mL	1.3	Kanapaha: Metals
1Q23-SIS1-L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals
Q23-SIS1-N	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth is <u>15.9'</u> ft below depth to water for every instance.		<input checked="" type="checkbox"/> Well found locked on arrival		<input checked="" type="checkbox"/> Well left locked on departure		
Temperature: <u>49°F</u>	Winds: <u>Calm</u>	Cloud Cover: <u>Cloudy</u>	Precip: <u>N/A</u>			
Remarks: <u>S</u>						

Tubing Depth is 15 ft below depth to water for every instance. Well found locked on arrival Well left locked on departure
Temperature: 74°F Winds: Calm Cloud Cover: Cloudy Precip: N/A
Remarks:

Remarks:

16m
-10 -23

DGS Groundwater Sampling Log



WELL ID:	SIS-2	Location:	Latitude: 29°45'53.4672"	Longitude: -82°23'31.5096"	MSL @ TOC	Date In Service
Quarter:	1/Q23	Date:	1/11/23	Well Type:	D	

Purging Data

◆ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): <u>J. Davis</u>			Sampler(s) Signatures: <u>J. Davis</u>		
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): <u>91</u>	Time: <u>11:22</u>	Sampling completed Tube Dpth(ft): <u>91</u>	Time: <u>11:36</u>
Field Decon: NO	Field Filtered: NO	Duplicate: YES <u>(NO)</u>	Acid ID# HNO3: <u>DS 0738</u>	H2SO4: <u>—</u>	
Sample Container Specification		Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	
<u>1Q23 SIS2 F</u>	PE	<u>4000/500</u>	Chill <6 C	n/a	n/a Kanapaha: Physical
<u>1Q23 SIS2 K</u>	PE	250	Chill <6 C	n/a	n/a Pace: Anions
<u>1Q23 SIS2</u>	PE	250	H2SO4/Chill-	0.5 mL	— Pace: NO2/NO3 and TOC
<u>1Q23 SIS2</u>	PE	1000	HNO3—	2 mL	— Pace: Gross Alpha
<u>1Q23 SIS2 G</u>	PE	<u>250/500</u>	HNO3	<u>0.5 / (1.0) mL</u>	<u>1.3</u> Kanapaha: Metals
<u>1Q23 SIS2 L</u>	PE	250	HNO3	0.5 mL	<u>1.3</u> Pace: Metals
<u>1Q23 SIS2 N</u>	PE	2000	HNO3	4mL	<u>1.3</u> Pace: Radium 226+228
Tubing Depth is <u>91</u> ft below depth to water for every instance*			<input checked="" type="checkbox"/> Well found locked on arrival		<input checked="" type="checkbox"/> Well left locked on departure
Temperature: <u>63°F</u> Winds: <u>Sunny</u> Cloud Cover: <u>2 mph NE</u>					Precip: <u>N/A</u>
Remarks:					

DGS Groundwater Sampling Log



WELL ID:	SIS-3	Location:	Latitude:	Longitude:	MSL @ TOC	Date In Service
			29°45'51.8472"	-82°23'35.5632"	183.11	2017
Quarter:	1Q 23	Date:	1-11-23	Well Type:	D	

Purging Data

2 Floater S
3 Clear
4 Colorless

♦ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): <u>JCD mini</u>		Sampler(s) Signatures: <u>J. D. E. K. C. S.</u>				
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Depth(ft):	Time: <u>9:16</u>	Sampling completed Tube Depth(ft):	Time: <u>10:03</u>	
Field Decon: NO	Field Filtered: NO	Duplicate: YES NO	Acid ID# HNO3: <u>DS0038</u> H2SO4: <u>—</u>			
Sample Container Specification			Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
<u>1Q23 SIS 3</u>	PE	4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
<u>1Q23 SIS 3</u>	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
<u>1Q23 SIS 3</u>	PE	250	H2SO4/Chill	0.5 mL	—	Pace: NO2/NO3 and TOC
<u>1Q23 SIS 3</u>	PE	1000	HNO3	2 mL	—	Pace: Gross Alpha
<u>1Q23 SIS 3</u>	PE	250/500	HNO3	0.5/1.0 mL	1.3	Kanapaha: Metals
<u>1Q23 SIS 3</u>	PE	250	HNO3	0.5 mL	1.3	Pace: Metals
<u>1Q23 SIS 3</u>	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth is <u>9'</u> ft below depth to water for every instance.			Well found locked on arrival		Well left locked on departure	
Temperature: <u>58°F</u> Winds: <u>1 mph NE</u>			Cloud Cover: <u>Sunny</u>		Precip: <u>N/A</u>	
Remarks:						

Tubing Depth is 9' ft below depth to water for every instance. Well found locked on arrival
Temperature: 58° F Winds: Light NE Cloud Cover: Sunny Well left locked on departure
Remarks: Precip: N/A

DGS Groundwater Sampling Log



WELL ID:	SIS-4	Location:	Latitude: 29°45'54.144"	Longitude: -82°23'38.4108"	MSL @ TOC	Date In Service 183.87	2017
Quarter:	Q23	Date:	11/123		Well Type:	D	

Purging Data

Diameter(in)	2	Total well depth(ft)	13.7	Depth to water(ft)	5.76	Well capacity(L/l)	0.6				
Distance from TOC to top of screen	3.7	ft.		Purging Method: PP		Equipment Volume = 750 mL					
1 WELL VOLUME(L)=(Total Well Depth-Depth to water)X Well Capacity				Time of Depth Meter Decon:	9:31						
Well Vol = (13.7 - 5.76) X 0.6 = 4.8 L				1/4 well vol. =	1.2						
Init Tubing Dpth(ft):	9	Final Tube Dpth(ft):	9	Purge Start Time:	9:34	Purge Stop time:	10:25				
						Total Volume Purged	189.0L				
Time	Volume Purged (L)	Cumul. Volume Purged (L)	Purge rate mL/min	Depth to water (ft)	pH (SU)	Temp (°C)	Cond (μmho)	Diss O2 (mg/L)	Turbidity (ntu)	ORP (mv)	Observed odor or color
					± 0.2§	± 0.2§	± 5%§	20% sal§	20 max§		
9:48	5.50	5.50	345	6.20	6.74	19.08	1008.5	1.52	5.15	267.4	Orange
9:51	1.20	6.70	345	6.20	6.67	19.18	649.2	1.20	3.22	262.7	Floaters
9:54	1.20	7.90	345	6.20	6.60	19.25	693.7	1.05	2.92	243.5	yellowish
9:58	1.20	8.10	345	6.28							Sulfur
10:02	2.80	10.70	345	6.28	6.30	19.42	889.4	0.84	2.69	91.7	Oder
10:11	3.10	13.80	345	6.28	6.21	19.52	964.6	0.73	1.48	629	
10:15	1.20	15.00	345	6.28	6.19	19.53	972.8	0.71	1.19	53.3	
10:20	1.70	16.70	345	6.28	6.16	19.57	996.0	0.68	1.15	41.4	
10:24	1.20	18.90	345	6.28	6.15	19.58	1005	0.67	0.91	36.8	
											Conductivity Went up to 1000

* FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water

§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): <i>K Morrison</i>	Sampler(s) Signatures: <i>Morrison</i>					
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 9	Time: 10:27	Sampling completed Tube Dpth(ft): 9	Time: 10:39	
Field Decon: NO	Field Filtered: NO	Duplicate: YES <input checked="" type="checkbox"/>	NO	Acid ID# HNO3: D50038H2SO4:	—	
Sample Container Specification		Sample Preservation			Intended Analysis or method	
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
1Q23SIS4F	PE	4000 <input checked="" type="checkbox"/>	Chill <6 C	n/a	n/a	Kanapaha: Physical
1Q23SIS4-1C	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
—	PE	250	H2SO4/Chill.	0.5 m	—	Pace: NO2/NO3 and TOC
—	PE	1000	HNO3—	2 mL	—	Pace: Gross Alpha
1Q23SIS4-5	PE	250 <input checked="" type="checkbox"/>	HNO3	0.5 <input checked="" type="checkbox"/> 1.0 mL	1.3	Kanapaha: Metals
1Q23SIS4-L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals
1Q23SIS4-N	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth Is 9 ft below depth to water for every instance. <input checked="" type="checkbox"/> Well found locked on arrival <input checked="" type="checkbox"/> Well left locked on departure						
Temperature: 58°F Winds: 1 mph NE Cloud Cover: Sunny Precip: N/A						
Remarks:						

DGS Groundwater Sampling Log



WELL ID:	LF-1	Location:	Latitude: 29°45'59.0544"	Longitude: -82°23'51.8244"	MSL @ TOC 185.76	Date In Service 2017
Quarter:	1Q23	Date:	11/01/23	Well Type:	U	

Purging Data

Diameter(in)	2	Total well depth(ft)	14.88	Depth to water(ft)	0.60	Well capacity(L/ft)	0.6
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Distance from TOC to top of screen **4.88** ft. Purging Method: PP Equipment Volume = 750 mL

$$1 \text{ WELL VOLUME(L)} = (\text{Total Well Depth} - \text{Depth to water}) \times \text{Well Capacity}$$

Well Vol = (14.88 - 10.00) X 0.6 = 5.00 L 1/4 well vol =

Init Tubing Dpth(ft): 8' Final Tube Dept(ft): 8' Purge Start Time: 9:34 Purge Stop time: 9:58 Total Volume Purged 1.3 L

◆ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print):			Sampler(s) Signatures:			
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 8'	Time: 9:59	Sampling completed Tube Dpth(ft): 8'	Time: 10:08	
Field Decon: NO	Field Filtered: NO	Duplicate: YES <input checked="" type="checkbox"/>	NO	Acid ID# HNO3: DS0038	H2SO4: DS1044	km 1-1
Sample Container Specification			Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
1Q23 LF1	PE	4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
1Q23 LF1	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
	PE	250	H2SO4/Chill	0.5 m		Pace: NO2/NO3 and TOC
	PE	1000	HNO3	2 mL		Pace: Gross Alpha
1Q23 LF1	PE	250/500	HNO3	0.5/1.0 mL	1.3	Kanapaha: Metals
1Q23 LF1	PE	250	HNO3	0.5 mL	1.3	Pace: Metals
1Q23 LF1	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth is 8 ft below depth to water for every instance.			Well found locked on arrival		Well left locked on departure	
Temperature: 54°F Winds: calm			Cloud Cover: cloudy		Precip: 0	
Remarks:						

Tubing Depth is 8 ft below depth to water for every instance. Well found locked on arrival Well left locked on departure
Temperature: 75°F Wind: 0 mph Cloud Cover: Cloudy Precip: 0

Temperature: 54°F Winds: calm Cloud Cover: cloudy Precip: 0%

Remarks: _____

Remarks:

DGS Groundwater Sampling Log



WELL ID:	LF-2	Location:	Latitude: 29°45'50.46"	Longitude: -82°23'47.40"	MSL @ TOC	Date In Service
Quarter:	1 Q 23	Date:	1/10/23	Well Type:	D	

Purging Data

◆ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print):			Sampler(s) Signatures:			
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 8' Time: 10:31			Sampling completed Tube Dpth(ft): 8' Time: 10:54	
Field Decon: NO	Field Filtered: NO	Duplicate: YES	NO	Acid ID# HNO3: DSv038	H2SO4: DSv04	
Sample Container Specification			Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
1Q23 LF2 F	PE	4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
1Q23 LF2 K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
1Q23 LF2 ^{1.0} _{1.0}	PE	250	H2SO4/Chill	0.5 mL	—	Pace: NO2/NO3 and TOC
1Q23 LF2 ^{1.0} _{1.0}	PE	1000	HNO3	2 mL	—	Pace: Gross Alpha
1Q23 LF2 G	PE	250/500	HNO3	0.5/10 mL	1.3	Kanapaha: Metals
1Q23 LF2 L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals
1Q23 LF2 N	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth is 8' ft below depth to water for every instance.			Well found locked on arrival		Well left locked on departure	
Temperature: 56°F Winds: 2 mph E			Cloud Cover: Cloudy		Precip: M/P	
Remarks:						

Tubing Depth is 8' ft below depth to water for every instance. ✓ Well found locked on arrival ✓ Well left locked on departure
Temperature: 50°F Winds: 2 mph E Cloud Cover: Cloudy Precip: M/A
Remarks:

DGS Groundwater Sampling Log



WELL ID:	LF-3	Location:	Latitude: 29°45'50.38"	Longitude: -82°23'52.30"	MSL @ TOC	Date In Service
Quarter:	1Q23	Date:	11/01/23	Well Type:	D	

Purging Data

3/1	Strong
5/5	Sulfur odor
	yellowish sooty

♦ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): K MORRISON			Sampler(s) Signatures: K. Morrison			
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 9'	Time: 11:12	Sampling completed Tube Dpth(ft): 9'	Time: 11:26	
Field Decon: NO	Field Filtered: NO	Duplicate: YES <input checked="" type="checkbox"/>	Acid ID# HNO3: DS0038	H2SO4: DS004	1cm	
Sample Container Specification			Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
1Q23 LF3 F	PE	4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
1Q23 LF3 K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
1Q23 LF3 X	PE	250	H2SO4/Chill	0.5 mL	—	Pace: NO2/NO3 and TOC
1Q23 LF3 H	PE	1000	HNO3	2 mL	—	Pace: Gross Alpha
1Q23 LF3 G	PE	250/500	HNO3	0.5/1.0 mL	1.3	Kanapaha: Metals
1Q23 LF3 L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals
1Q23 LF3 M	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth is 9 ft below depth to water for every instance.			Well found locked on arrival			<input checked="" type="checkbox"/> Well left locked on departure
Temperature: 60°F Winds: 3 mph SE			Cloud Cover: partly cloudy			Precip: N/A
Remarks:						

Tubing Depth is 9 ft below depth to water for every instance. ✓ Well found locked on arrival ✓ Well left locked on departure
Temperature: 70°F Winds: 3 mph SE Cloud Cover: partly cloudy Precip: N/A
Remarks:

DGS Groundwater Sampling Log



WELL ID:	LF-4	Location:	Latitude: 29°45'50.43"	Longitude: -82°23'58.46"	MSL @ TOC	Date In Service
Quarter:	1Q23	Date:	11/10/23	Well Type:	D	

Purging Data

◆ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): <u>K. MORRISON</u>			Sampler(s) Signatures: <u>Morrison</u>				
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): <u>9'</u>	Time: <u>12:34</u>	Sampling completed Tube Dpth(ft): <u>9'</u>	Time: <u>12:50</u>		
Field Decon: NO	Field Filtered: NO	Duplicate: YES <u>NO</u>	Acid ID# HNO3: DS0038 H ₂ SO4: DS0042				
Sample Container Specification		Sample Preservation			Intended Analysis or method		
Sample ID:	Material	Vol(mL)	Preservative	Vol Added			
1Q23 LF4 F	PE	4000 <u>/500</u>	Chill <6 C	n/a	n/a	Kanapaha: Physical	
1Q23 LF4 K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions	
_____	PE	250	H ₂ SO4/Chill	0.5 mL	—	Pace: NO ₂ /NO ₃ and TOC	
_____	PE	1000	HNO3	2 mL	—	Pace: Gross Alpha	
1Q23 LF4 G	PE	250 <u>/500</u>	HNO3	0.5 <u>/1.0 mL</u>	<u>1.3</u>	Kanapaha: Metals	
1Q23 LF4 L	PE	250	HNO3	0.5 mL	<u>1.3</u>	Pace: Metals	
1Q23 LF4 N	PE	2000	HNO3	4 mL	<u>1.3</u>	Pace: Radium 226+228	
Tubing Depth is <u>9'</u> ft below depth-to-water-for-every instance.						✓ Well found locked on arrival	✓ Well left locked on departure
Temperature: <u>65°F</u> Winds: <u>Simple E</u> Cloud Cover: <u>Sunny</u>						Precip: <u>N/A</u>	
Remarks: Extended 2nd purge to allow turbidity to stabilize parameters							

Tubing Depth is 91 ft below depth to water for every instance. ✓ Well found locked on arrival ✓ Well left locked on departure
Temperature: 65°F Winds: 5 mph E Cloud Cover: Sunny Precip: N/A
Remarks: Extended 2nd purge to allow turbidity to stabilize parameters

DGS Groundwater Sampling Log



WELL ID:	LF-5	Location:	Latitude: 29°45'53.70"	Longitude: -82°23'59.83"	MSL @ TOC	Date In Service
Quarter:	1Q23	Date:	11/10/23	Well Type:	D	

Purging Data

♦ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): K MORRISON			Sampler(s) Signatures: KMorrison			
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 99	Time: 13:38	Sampling completed Tube Dpth(ft): 99	Time: 13:45	
Field Decon: NO	Field Filtered: NO	Duplicate: YES (NO)	Acid ID# HNO3: DS0038	H2SO4: DS0047		
Sample Container Specification			Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
1Q23LF5 F	PE	4000 (500)	Chill <6 C	n/a	n/a	Kanapaha: Physical
1Q23LF5 K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
—	PE	250	H2SO4/Chill	0.5 m	—	Pace: NO2/NO3 and TOC
—	PE	1000	HNO3—	2 mL	—	Pace: Gross Alpha
1Q23LF5 G	PE	250 (500)	HNO3	0.5 / 1.0 mL	1.3	Kanapaha: Metals
1Q23LF5 L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals
1Q23LF5 M	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth is 9' ft below depth to water for every instance.			Well found locked on arrival		Well left locked on departure	
Temperature: 68°F Winds: 6 mph SE			Cloud Cover: Sunny		Precip: N/A	
Remarks: Extended purge due to turbidity. wanted to allow it to sta						

Tubing Depth is 9 ft below depth to water for every instance. ✓ Well found locked on arrival ✓ Well left locked on departure
Temperature: 68°F Winds: 6 mph SE Cloud Cover: 50% Precip: 1/1

Temperature: 68°F Winds: 6 mph SE Cloud Cover: Sunny Precip: N/A

Remarks: Extended course due to bad weather wanted to allow

Remarks: Extended course due to backslid. Wanted to allow at the end of the course.

Remarks: Extended Nurse did not wish to allow

Excluded from the herbability wanted to know if

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Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



WELL ID:	LF-6	Location:	Latitude: 29°45'56.71"	Longitude: -82°23'59.75"	MSL @ TOC	Date In Service 184.59 2020
Quarter:	1Q23		Date: 1/10/23	Well Type: D		

Purging Data

Diameter(in)	2	Total well depth(ft)	14.52	Depth to water(ft)	(0.15)	Well capacity(L/ft)	0.6				
Distance from TOC to top of screen	4.04		ft.	Purging Method:	PP	Equipment Volume = 750 mL					
1 WELL VOLUME(L)=(Total Well Depth-Depth to water)X Well Capacity				Time of Depth Meter Decon: 13:57							
Well Vol = (14.52 - 0.15) X 0.6 = 5.02 L						1/4 well vol.=	1.3				
Init Tubing Dpth(ft): 9'	Final Tube Depl(ft): 9'	Purge Start Time: 13:58	Purge Stop time: 14:37	Total Volume Purged	140 L						
Time	Volume Purged (L)	Cumul. Volume Purged (L)	Purge rate mL/min	Depth to water (ft)	pH (SU)	Temp (°C)	Cond (μmho)	Diss O2 (mg/L)	Turbidity (ntu)	ORP (mv)	Observed odor or color
14:13	5.40	5.40	380	6.59	6.51	18.47	505 225	1.71	20.7	49.6	<i>milky cloudy</i>
14:18	1.90	7.30	380	6.59	6.48	18.41	231.2	1.38	17.5	50.9	
14:21	1.20	8.50	380	6.59	6.47	18.40	236.4	1.29	13.5	57.4	
14:24	1.20	9.70	380	6.59	6.44	18.40	245.2	1.16	12.3	60.5	
14:29	1.90	11.60	380	6.59	6.41	18.40	254.2	1.09	10.7	65.3	
14:32	1.20	12.80	380	6.59	6.39	18.40	259.5	0.92	8.51	68.1	
14:35	1.20	14.00	380	6.59	6.38	18.35	263.4	0.79	7.47	64.7	
14:38	1.10	14.10									

Decon Depth Mtr - rinse with analyte free water

§Purge method FDEP-SOP 2212.3.1

* FDEP SOP Section 2212.3

Sampling Data

Sampled By(Print): <i>K. L. Klemse</i>	Sampler(s) Signatures: <i>Klemse</i>						
Sampling Method: PP	Tube Material: PP/S	Sampling Started: 8/10/23	Tube Dpth(ft): 9'	Time: 14:38	Sampling completed: 14:50	Tube Dpth(ft): 9'	Time: 14:50
Field Decon: NO	Field Filtered: NO	Duplicate: YES <input checked="" type="checkbox"/>	NO	Acid ID# HNO3: D50038	H2SO4: D50042		
Sample Container Specification			Sample Preservation			Intended Analysis or method	
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH		
1Q23LF6 F	PE	4000 <input checked="" type="checkbox"/> 500	Chill <6 C	n/a	n/a	Kanapaha: Physical	
1Q23LF6 K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions	
	PE	250	H2SO4/Chill	0.5 mL		Pace: NO2/NO3 and TOC	
	PE	1000	HNO3	2 mL		Pace: Gross Alpha	
1Q23LF6 G	PE	250 <input checked="" type="checkbox"/> 500	HNO3	0.5 / <input checked="" type="checkbox"/> 1.0 mL	1.3	Kanapaha: Metals	
1Q23LF6 L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals	
1Q23LF6 N	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228	
Tubing Depth is 9' ft below depth to water for every instance. <input checked="" type="checkbox"/> Well found locked on arrival <input checked="" type="checkbox"/> Well left locked on departure							
Temperature: 67°F Winds: Strong Cloud Cover: Sunny Precip: N/A							
Remarks: 1-10' Pmn 6 mph SE							

DGS Groundwater Sampling Log



WELL ID: EBLANK Q

Quarter: 4/23 Date: 1/11/23

1Q23

Purging Data

Purging Method: PP Equipment Volume = 750 mL

Well Collected At: SIS 4 Purge Start Time: n/a
Time of Depth Meter Decon: 10:35 Purge Stop time: n/a

* FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): <u>KMORCISCH</u>		Sampler(s) Signatures: <u>K. Morris</u>				
Sampling Method: PP	Tube Material: PP/S	Sampling Started Time: <u>10:37</u>		Sampling completed Time: <u>10:39</u>		
Field Decon: NO	Field Filtered: NO	Duplicate: YES	NO	Acid ID# HNO3: <u>DSUD38</u>	H ₂ SO ₄ : —	
Sample Container Specification		Sample Preservation			Intended Analysis or method	
ID:	Material	Vol mL	Preservative	Vol Addn	final pH	
1Q23 EBlank2	PE	250	Chill <6 C	n/a	n/a	Pace Anions
1Q23 EBlank2	PE	250	H ₂ SO ₄ +Chill	0.5 mL	—	Pace NO ₂ /NO ₃ and TOC <i>(This sample)</i>
1Q23 EBlank2	PE	1000	HNO ₃	—2 mL	—	Pace Gross Alpha
1Q23 EBlank2	PE	250+500	HNO ₃	0.5/1 mL	1.3	Kanapaha Metals
1Q23 EBlank2	PE	250	HNO ₃	0.5 mL	1.3	Pace Metals
1Q23 EBlank2	PE	2000	HNO ₃	4 mL	1.3	Pace Radium 226+228

Well found locked on arrival

Temperature: 58°F Winds: T mph

Remarks:

Well left locked on departure

Cloud Cover: Sunny

Precip: N/a

DGS Groundwater Sampling Log



WELL ID:	R4T5	Location:	Latitude: 29°45'52.14"	Longitude: -82°23'33.18"	MSL @ TOC	Date In Service
Quarter:	3Q23	Date:	7/12/23	Well Type:	I	

Purging Data

♦ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water

§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): K. Brakefield			Sampler(s) Signatures: K. Brakefield			
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 10.89	Time: 0848	Sampling completed Tube Dpth(ft): 10.89	Time: 0929	
Field Decon: NO	Field Filtered: NO	Duplicate: YES (NO)		Acid ID# HNO3: DS0044	H2SO4: DS0032	
Sample Container Specification			Sample Preservation		Intended Analysis or method	
Sample ID:	Material	Vol(mL)	Preservative	Vol Added		
3Q23-R4TS-A	PE	4000 (500)	Chill <6 C	n/a	n/a	Kanapaha: Physical
3Q23-R4TS-K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
3Q23-R4TS-C	PE	250	H2SO4/Chill	0.5 mL	1.6	Pace: NO2/NO3 and TOC
3Q23-R4TS-D	PE	1000	HNO3	2 mL	1.6	Pace: Gross Alpha
3Q23-R4TS-E	PE	250 (500)	HNO3	0.5 (1.0 mL)	1.6	Kanapaha: Metals
3Q23-R4TS-M	PE	250	HNO3	0.5 mL	1.6	Pace: Metals (preserved in field)
3Q23-R4TS-N	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228

Tubing Depth is Δ 5 ft below depth to water for every instance.

Tubing Depth ISO 150' below depth to water for every instance. Well found locked on airbar
Temperature: 78°F Winds: NWN @ 1-2 mph Cloud Cover: partly cloudy
Well left locked on departure
Precip: 0

Temperature: 75 Winds: NE 10-15 mph Cloud Cover: Scattered Precip.: None

Remarks:

DGS Groundwater Sampling Log



WELL ID:	R6T4	Location:	Latitude: 29°46'00.90"	Longitude: -82°23'40.20"	MSL @ TOC	Date In Service: 7-93
Quarter:	3Q23		Date: 7/12/23	Well Type: I		

Purging Data

Diameter(in)	2	Total well depth(ft)	14.13	Depth to water(ft)	2.54	Well capacity(L/ft)	0.6				
Distance from TOC to top of screen	4.13 ft.		Purging Method:	PP	Equipment Volume = 750 mL						
1 WELL VOLUME(L)=(Total Well Depth-Depth to water)X Well Capacity							Time of Depth Meter Decon: 0943				
Well Vol = (14.13 - 2.54) X 0.6 = 6.95 L							1/4 well vol.= 1.75 L				
Init Tubing Dpth(ft):	3.04	Final Tube Dept(ft):	3.09	Purge Start Time:	0948	Purge Stop time:	1026				
							Total Volume Purged 10.6L				
Time	Volume Purged (L)	Cumul. Volume Purged (L)	Purge rate mL/min	Depth to water (ft)	pH (SU)	Temp (°C)	Cond (μmho)	Diss O2 (mg/L)	Turbidity (ntu)	ORP (mv)	Observed odor or color
					± 0.2§	± 0.2§	± 5%§	20% sat§	20 max§		
1014	7.0	7.0	310	2.59	6.86	27.52	363.4	0.07	1.04	-63.7	Clear yellowish color Slight sulfur odor
1020	8.8	8.8	310	2.59	6.78	27.48	360.6	0.08	1.17	-70.5	
1026	10.6	10.6	310	2.59	6.69	27.40	363.9	0.08	0.94	-68.6	

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

* FDEP SOP Section 2212.3

Sampling Data

Sampled By(Print): K. Brakefield	Sampler(s) Signatures: K. Brakefield					
Sampling Method: PP	Tube Material: PP/S					
Field Decon: NO	Field Filtered: NO					
Sampling Data						
Sampling Started Tube Dpth(ft): 3.09 Time: 1029	Sampling completed Tube Dpth(ft): 3.09 Time: 1050					
Duplicate: YES (NO)	Acid ID# HNO3: DS0044 H2SO4: DS0032					
Sample Container Specification						
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	Intended Analysis or method
3Q23-R6T4-A	PE	4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
3Q23-R6T4-K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
3Q23-R6T4-C	PE	250	H2SO4/Chill	0.5 mL	1.3	Pace: NO2/NO3 and TOC
3Q23-R6T4-D	PE	1000	HNO3	2 mL	1.3	Pace: Gross Alpha
3Q23-R6T4-E	PE	250 (500)	HNO3	0.5/1.0 mL	1.6	Kanapaha: Metals
3Q23-R6T4-M	PE	250	HNO3	0.5 mL	1.3	Pace: Metals (preserved in field)
3Q23-R6T4-N	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth is 0.5 ft below depth to water for every instance.						
Temperature: 81°F Winds: WNW @ 2.7 mph Cloud Cover: partly cloudy						
Well found locked on arrival Well left locked on departure						
Remarks: Precip: 0						

DGS Groundwater Sampling Log



WELL ID:	SIS-1	Location:	Latitude:	Longitude:	MSL @ TOC	Date In Service
			29°46'00.1308"	-82°23'33.3204"	185.11	2017
Quarter:	3Q 23	Date:	7-13-23	Well Type:	U	

Purging Data

clear
colorless
slight
sulfur odor

♦ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): JCD		Sampler(s) Signatures: JCD				
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 9.0	Time: 1000	Sampling completed Tube Dpth(ft): 9.0	Time: 1012	
Field Decon: NO	Field Filtered: NO	Duplicate: YES (NO)	Acid ID# HNO3: D50044	H2SO4: D50232		
Sample Container Specification		Sample Preservation			Intended Analysis or method	
Sample ID:	Material	Vol(mL)	Preservative	Vol Added		
3Q23-515-1-F	PE	4000 (500)	Chill <6 C	n/a	n/a	Kanapaha: Physical
3Q23-515-1-K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
	PE	250	H2SO4/Chill	0.5 mL		Pace: NO2/NO3 and TOC
	PE	1000	HNO3	2 mL		Pace: Gross Alpha
3Q23-515-1-G	PE	250 (500)	HNO3	0.5 (1.0 mL)	1.3	Kanapaha: Metals
3Q23-515-1-L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals (Preserved for Field)
3Q23-515-1-N	PE	2000	HNO3	4 mL	1.0	Pace: Radium 226+228
Tubing Depth is ^{1/4} ft below depth to water for every instance.		Well found locked on arrival		Well left locked on departure		
Temperature: 84°F	Winds: W 7 mph	Cloud Cover: partly cloudy		Precip: 0		
Remarks:						

Tubing Depth is $\frac{P/\delta}{\rho}$ ft below depth to water for every instance.
Temperature: 65°F Wind: $W = \sqrt{100 - h}$ Cl

Temperature: 84°F Winds: W 7 mph

Temperature: 69° F Wind: W / Very W
Remarks:

Remarks:

Well found locked on arrival

Cover: partly cloudy

(

✓ Well left locked on departure

Precip: 0

Remarks:

DGS Groundwater Sampling Log



WELL ID:	SIS-2	Location:	Latitude: 29°45'53.4672"	Longitude: -82°23'31.5096"	MSL @ TOC 183.3	Date In Service 2017
Quarter:	3Q23	Date:	7-13-23	Well Type:	D	

Purging Data

Diameter(in) 2 Total well depth(ft) 14.22 Depth to water(ft) 5.0 Well capacity(L/ft) 0.6

Distance from TOC to top of screen **4.22** ft. Purgung Method: PP Equipment Volume = 750 mL

$$\text{Well Vol} = (14.22 - 5.0) \times 0.6 = 5.532 \text{ L}$$

1/4 well vol = 1.383

Init Tubing Depth(ft): 9.0 Final Tube Depth(ft): 9.5 Purge Start Time: 10:27 Purge Stop time: 11:06 Total Volume Purged 7.15L

Decon Depth Mtr - rinse with analyte free water

SPurge method FDEP-SOP 2212.3.1

◆ FDEP SOP Section 2212.3

Sampling Data

Sampled By(Print): JCB		Sampler(s) Signatures: JK				
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 20	Time: 1108	Sampling completed Tube Dpth(ft): 20	Time: 1122	
Field Decon: NO	Field Filtered: NO	Duplicate: YES <input checked="" type="checkbox"/> NO		Acid ID# HNO3: 580044	H2SO4: 750032	
Sample Container Specification			Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
3Q23-S15-2-K	PE	4000 <input checked="" type="checkbox"/> 500	Chill <6 C	n/a	n/a	Kanapaha: Physical
3Q23-S15-2-K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
	PE	250	H2SO4/Chill	0.5 mL		Pace: NO2/NO3 and TOC
	PE	1000	HNO3	2 mL		Pace: Gross Alpha
3Q23-S15-2-G	PE	250 <input checked="" type="checkbox"/> 500	HNO3	0.5 <input checked="" type="checkbox"/> 1.0 mL	1.3	Kanapaha: Metals
3Q23-S15-2-L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals (Preserved in Field)
3Q23-S15-2-N	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228

Tubing Depth Is $\frac{3}{4}$ ft below depth to water for every instance

Tubing Depth is $\frac{1}{4}$ ft below depth to water for every in. Temperature: $86^{\circ} =$ Winds: W 16 mph

Temperature

✓ Well found locked on arrival

Cloud Cover: Partly Cloudy

✓ Well left locked on departure

Well left locked on departure

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



WELL ID:	SIS-4	Location:	Latitude: 29°45'54.144"	Longitude: -82°23'38.4108"	MSL @ TOC 183.87	Date In Service 2017
Quarter:	3023	Date:	7-19-23	Well Type:	D	

Purging Data

Diameter(in)	2	Total well depth(ft)	13.7	Depth to water(ft)	9.15	Well capacity(L/ft)	0.6
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Distance from TOC to top of screen 3.7 ft. Purging Method: PP Equipment Volume = 750 mL

$$1 \text{ WELL VOLUME(L)} = (\text{Total Well Depth} - \text{Depth to water}) \times \text{Well Capacity}$$

Time of Depth Meter Decon: 0925

Well Vol = (13.7 - 4.15) X 0.6 = 5.73 L $\frac{1}{4}$ well vol = 1.4325

Init Tubing Depth(ft): 9.0 Final Tube Depth(ft): 9.0 Purge Start time: 0928 Purge Stop time: 0958 Total Volume Purged L

► EDFP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDER-SOP 2212.3.1

Sampled By(Print): JCB			Sampler(s) Signatures: JCB		
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 9.0	Time: 1000	Sampling completed Tube Dpth(ft): 9.0	Time: 1015
Field Decon: NO	Field Filtered: NO	Duplicate: YES	NO	Acid ID# HNO3: DS0444	H2SO4: DS0032
Sample Container Specification		Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	
3Q23-5154 -F	PE	4000/500	Chill <6 C	n/a	Kanapaha: Physical
3Q23-5154 -K	PE	250	Chill <6 C	n/a	Pace: Anions
	PE	250	H2SO4/Chill	0.5 mL	Pace: NO2/NO3 and TOC
	PE	1000	HNO3	2 mL	Pace: Gross Alpha
3Q23-5154 -G	PE	250/500	HNO3	0.5/1.0 mL	1.3 Kanapaha: Metals
3Q23-5154 -L	PE	250	HNO3	0.5 mL	1.3 Pace: Metals (Preserved in Field)
3Q23-5154 -N	PE	2000	HNO3	4 mL	1.3 Pace: Radium 226+228
Tubing Depth is <u>ML</u> ft below depth to water for every instance.			Well found locked on arrival		Well left locked on departure
Temperature: <u>85°F</u> Winds: <u>5w 6 mph</u>			Cloud Cover: <u>Scant</u>		Precip: <u>0</u>
Remarks:					

Tubing Depth is 10 ft below depth to water for every instance.

Bottom Depth is ____ ft below depth to water for every 1° F
Temperature: 85°F Winds: SW 6 mph

Temperature: 83 F Winds: SW 5-10
Remarks:

Remarks:

Well found locked on arrival

Cloud Cover: ~~1 Can't~~

Cloud Cover: 3 cm

Well left locked on departure

Precip:

Recip. _____

Remarks:

DGS Groundwater Sampling Log



WELL ID:	LF-1	Location:	Latitude: 29°45'59.0544"	Longitude: -82°23'51.8244"	MSL @ TOC	Date In Service 185.76 2017
Quarter:	3Q23		Date: 7/13/23	Well Type: U		

Purging Data

Diameter(in)	2	Total well depth(ft)	14.88	Depth to water(ft)	5.15	Well capacity(L/ft)	0.6				
Distance from TOC to top of screen	4.88 ft.			Purging Method:	PP	Equipment Volume = 750 mL					
1 WELL VOLUME(L)=(Total Well Depth-Depth to water)X Well Capacity			Time of Depth Meter Decon: 0750								
Well Vol = (14.88 - 5.15) X 0.6 = 5.84 L				1/4 well vol.= 1.5 L							
InitTubing Dpth(ft): 9.0	Final Tube Dept(ft): 9.0	Purge Start Time: 0756	Purge Stop time: 0841	Total Volume Purged	17.1 L						
Time	Volume Purged (L)	Cumul. Volume Purged (L)	Purge rate mL/min	Depth to water (ft)	pH (SU)	Temp (°C)	Cond (μmho)	Diss O2 (mg/L)	Turbidity (ntu)	ORP (mv)	Observed odor or color
0819	8.0	8.0	390	5.41	6.51	26.59	498.2	2.52	1.67	250.3	> 20% DO
0822	1.3	9.3	390	5.41	6.48	26.59	486.6	2.37	0.79	233.9	
0825	1.3	10.6	390	5.41	6.44	26.55	478.1	2.21	0.96	215.2	
0828	1.3	11.9	390	5.41	6.42	26.55	471.0	2.01	0.77	185.8	
0831	1.3	13.2	390	5.41	6.39	26.51	462.0	1.80	1.00	182.1	Clear No color
0834	1.3	14.5	390	5.41	6.36	26.51	453.4	1.58	0.65	171.8	
0837	1.3	15.8	390	5.41	6.33	26.51	443.0	1.37	0.88	160.1	
0840	1.3	17.1	390	5.41	6.29	26.50	432.3	1.21	0.69	148.3	Slight sulfur odor

Decon Depth Mtr - rinse with analyte free water

\$Purge method FDEP-SOP 2212.3.1

* FDEP SOP Section 2212.3

Sampling Data

Sampled By(Print): JCD / FSB	Sampler(s) Signatures: JCD						
Sampling Method: PP	Tube Material: PP/S,	Sampling Started Tube Dpth(ft): 9.0	Time: 0842	Sampling completed Tube Dpth(ft): 9.0	Time: 0853		
Field Decon: NO	Field Filtered: NO	Duplicate: YES (NO)	Acid ID# HNO3: D50044	H2SO4: D50032			
Sample Container Specification			Sample Preservation			Intended Analysis or method	
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH		
3Q23-LF-1-F	PE	4000 (500)	Chill <6 C	n/a	n/a	Kanapaha: Physical	
3Q23-LF-1-K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions	
N/A	PE	250	H2SO4/Chill	0.5 mL		Pace: NO2/NO3 and TOC	
N/A	PE	1000	HNO3	2 mL		Pace: Gross Alpha	
3Q23-LF-1-G	PE	250 (500)	HNO3	0.5 (1.0 mL)	1.3	Kanapaha: Metals	
3Q23-LF-1-L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals (Preserved in Field)	
3Q23-LF-1-N	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228	
Tubing Depth is N/A ft below depth to water for every instance.						✓ Well found locked on arrival	✓ Well left locked on departure
Temperature: 80°F Winds: W 4 mph Cloud Cover: partly cloudy						Precip: 0	
Remarks:							

DGS Groundwater Sampling Log



WELL ID:	LF-2	Location:	Latitude: 29°45'50.46"	Longitude: -82°23'47.40"	MSL @ TOC	Date In Service
Quarter:	3Q 23	Date:	7-14-23	Well Type:	D	

Purging Data

Diameter(in)	2	Total well depth(ft)	15.36	Depth to water(ft)	4.16	Well capacity(L/ft)	0.6
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Distance from TOC to top of screen 5.36 in. Purging Method: PP Equipment Volume = 760 mL

$$\text{Well Vol} = (15.36 - 4.16) \times 0.6 = 6.72 \text{ L}$$

1/4 well vol = 1.68 L

InitTubing Dpth(ft): 9.0 Final Tube Depth(ft): 9.0 Purge Start Time: 1105 Purge Stop time: 1139 Total Volume Purged 8.15L

► FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): JC		Sampler(s) Signatures: JC			
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 9.0	Time: 1137	Sampling completed Tube Dpth(ft): 9.0	Time: 1156
Field Decon: NO	Field Filtered: NO	Duplicate: YES <input checked="" type="checkbox"/> NO	Acid ID# HNO3: DS0044	H2SO4: DS0032	
Sample Container Specification		Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	
3Q23-LF-2-F	PE	4000/500	Chill <6 C	n/a	n/a Kanapaha: Physical
3Q23-LF-2-K	PE	250	Chill <6 C	n/a	n/a Pace: Anions
	PE	250	H2SO4/Chill	0.5 mL	Pace: NO2/NO3 and TOC
	PE	1000	HNO3	2 mL	Pace: Gross Alpha
3Q23-LF-2-G	PE	250/500	HNO3	0.5 (1.0 mL)	1.0 Kanapaha: Metals
3Q23-LF-2-L	PE	250	HNO3	0.5 mL	1.0 Pace: Metals (Preserved in Alcohol)
3Q23-LF-2-N	PE	2000	HNO3	4 mL	1.0 Pace: Radium 226+228
Tubing Depth is <u>NA</u> ft below depth to water for every instance.		Well found locked on arrival		Well left locked on departure	
Temperature: <u>88°F</u> Winds: <u>SW 7 mph</u>		Cloud Cover: <u>Mostly Cloudy</u>		Precip: <input checked="" type="checkbox"/>	
Remarks:					

Tubing Depth is 14 ft below depth to water for every instance.

Temperature: 68°F Winds: SW 7 mph Cloud Cover: Mostly Cloudy

Temperature: 66 °F Wind: S E mph
Remarks:

Remarks:

Well left locked on departure

Well left locked on departure
Prcdp: C

Fluclp. _____

Remarks:

DGS Groundwater Sampling Log



WELL ID:	LF-3	Location:	Latitude: 29°45'50.38"	Longitude: -82°23'52.30"	MSL @ TOC	Date In Service
Quarter:	3Q23	Date:	7-17-23	Well Type:	D	

Purging Data

Diameter(in)	2	Total well depth(ft)	16.29	Depth to water(ft)	4.29	Well capacity(L/ft)	0.6
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Distance from TOC to top of screen 6.29 ft. Purging Method: PP Equipment Volume = 750 mL

$$1 \text{ WELL VOLUME(L)} = (\text{Total Well Depth} - \text{Depth to water}) \times \text{Well Capacity}$$

Well Vol = (16.29 - 6.79) X 0.6 = 7.3 L 1/4 well vol = 1.8

InitTubing Dpth(ft): 90 Final Tube Depth(ft): 90 Purge Start Time: 0748 Purge Stop time: 0816 Total Volume Purged 8.8L

Decon Depth Mtr - rinse with analyte free water

Decon Depth Mit - Rinse with analyte
SPurge method FDEP-SOP 2212.3.1

♣ FDEP SOP Section 2212.3

Sampling Data

Sampled By(Print): JCD			Sampler(s) Signatures: JCD			
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 9.0	Time: 0811	Sampling completed Tube Dpth(ft): 9.0	Time: 0822	
Field Decon: NO	Field Filtered: NO	Duplicate: YES <input checked="" type="checkbox"/> NO	Acid ID# HNO3: DS0644	H2SO4: DS0032		
Sample Container Specification			Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
3Q23-LF3-F	PE	4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
3Q23-LF3-K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
	PE	250	H2SO4/Chill	0.5 mL		Pace: N02/N03 and TOC
	PE	1000	HNO3	2 mL		Pace: Gross Alpha
3Q23-LF3-G	PE	250/500	HNO3	0.5/1.0 mL	1-3	Kanapaha: Metals
3Q23-LF3-L	PE	250	HNO3	0.5 mL	1-3	Pace: Metals (Preserved in Field)
3Q23-LF3-N	PE	2000	HNO3	4 mL	1-3	Pace: Radium 226+228
Tubing Depth is <u>14</u> ft below depth to water for every instance.			<input checked="" type="checkbox"/> Well found, locked on arrival			<input checked="" type="checkbox"/> Well left locked on departure
Temperature: <u>77°F</u> Winds: <u>SW 6 mph</u>			Cloud Cover: <u>partly cloudy</u>			Precip: <u>C</u>
Remarks:						

Tubing Depth is $\frac{1}{2}$ below depth to water for every instance

Well found locked on arrival

Well left locked on departure

Tubing Depth is 17' below depth to water for every
Temperature: 77°F Winds: SW 6 mph

Cloud Cover: ~~partly cloudy~~

Precip: 

Temperature
Remarks:

DGS Groundwater Sampling Log



WELL ID:	LF-4	Location:	Latitude: 29°45'50.43"	Longitude: -82°23'58.46"	MSL @ TOC	Date In Service
Quarter:	3Q 23	Date:	7/17/23	Well Type:	D	

Purging Data

♣ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water

§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): <u>DCB</u>			Sampler(s) Signatures: <u>JCD</u>			
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): <u>70</u>	Time: <u>0821</u>	Sampling completed Tube Dpth(ft): <u>90</u>	Time: <u>0823</u>	
Field Decon: NO	Field Filtered: NO	Duplicate: YES <u>(NO)</u>	Acid ID# HNO3: <u>150044</u>	H2SO4: <u>050032</u>		
Sample Container Specification			Sample Preservation			Intended Analysis or method
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
<u>3Q23-LF4-F</u>	PE	4000 <u>500</u>	Chill <6 C	n/a	n/a	Kanapaha: Physical
<u>3Q23-LF4-K</u>	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
	PE	250	H2SO4/Chill	0.5 mL		Pace: NO2/NO3 and TOC
	PE	1000	HNO3	2 mL		Pace: Gross Alpha
<u>3Q23-LF4-G</u>	PE	250 <u>500</u>	HNO3	0.5 / 1.0 mL	<u>1.3</u>	Kanapaha: Metals
<u>3Q23-LF4-L</u>	PE	250	HNO3	0.5 mL	<u>1.3</u>	Pace: Metals (Preserved in Acid)
<u>3Q23-LF4-N</u>	PE	2000	HNO3	4 mL	<u>1.3</u>	Pace: Radium 226+228
Tubing Depth is <u>1/4</u> ft below depth to water for every instance.			<input checked="" type="checkbox"/> Well found locked on arrival			<input checked="" type="checkbox"/> Well left locked on departure
Temperature: <u>83°F</u> Winds: <u>SW Gusty</u>			Cloud Cover: <u>partly cloudy</u>			Precip: <u>0</u>
Remarks:						

DGS Groundwater Sampling Log



WELL ID:	LF-5 3Q23	Location:	Latitude: 29°45'53.70"	Longitude: -82°23'59.83"	MSL @ TOC	Date In Service: 184.33 2020
Quarter:	7-17-23	Date:	7-17-23		Well Type:	D

Purging Data

Diameter(in)	2	Total well depth(ft)	14.52	Depth to water(ft)	4.48	Well capacity(L/l)	0.6				
Distance from TOC to top of screen	4.04	ft.		Purging Method:	PP	Equipment Volume	= 750 mL				
1 WELL VOLUME(L)=(Total Well Depth-Depth to water)X Well Capacity				Time of Depth Meter Decon:	0848						
Well Vol = (14.52 - 4.48) X 0.6 = 6.024 L				1/4 well vol. =	1.506						
Init Tubing Dpth(ft): 9.0	Final Tube Dpth(ft): 9.0	Purge Start Time: 0953	Purge Stop time: 0953	Total Volume Purged	23.0L						
Time	Volume Purged (L)	Cumul. Volume Purged (L)	Purge rate mL/min	Depth to water (ft)	pH (SU)	Temp (°C)	Cond (μmho)	Diss O2 (mg/L)	Turbidity (ntu)	ORP (mv)	Observed odor or color
					± 0.2§	± 0.2§	± 5%§	20% sat§	20 max§		
10/4	6.1	6.1	300	4.69	6.15	28.58	422.0	0.44	7.07	52.8	Clear
10/7	1.1	7.2	300	4.69	6.06	28.55	478.1	0.46	7.53	46.7	Colorless
10/20	1.1	8.3	300	4.69	6.02	28.55	507.5	0.47	7.24	44.0	Colorless
10/23	1.1	9.4	300	4.69	5.95	28.55	592.1	0.48	6.78	41.9	
10/31	2.5	11.9	300	4.69	5.85	28.49	635.8	0.46	6.92	40.6	
10/39	1.0	12.9	300	4.69	5.83	28.47	660.8	0.45	5.11	40.3	
10/37	1.0	13.9	300	4.69	5.80	28.47	686.2	0.44	4.27	38.7	
10/59	7.2	21.1	300	4.69	5.68	28.33	810.7	0.56	3.73	36.0	
11/02	1.0	22.0	300	4.69	5.68	28.40	817.8	0.57	2.90	35.6	
11/05	1.0	23.0	300	4.69	5.67	28.40	822.3	0.61	2.75	35.1	

Decon Depth Mtr - rinse with analyte free water

\$Purge method FDEP-SOP 2212.3.1

* FDEP SOP Section 2212.3

Sampling Data

Sampled By(Print): JCP	Sampler(s) Signatures: <i>[Signature]</i>					
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): 9.0 Time: 1107			Sampling completed Tube Dpth(ft): 9.0 Time: 1120	
Field Decon: NO	Field Filtered: NO	Duplicate: YES	NO	Acid ID# HNO3: D50414	H2SO4/D50052	
Sample Container Specification		Sample Preservation			Intended Analysis or method	
Sample ID:	Material	Vol(mL)	Preservative	Vol Added	Final pH	
3Q23-LFS-F	PE	4000/500	Chill <6 C	n/a	n/a	Kanapaha: Physical
3Q23-LFS-K	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
	PE	250	H2SO4/Chill	0.5 mL		Pace: NO2/NO3 and TOC
	PE	1000	HNO3	2 mL		Pace: Gross Alpha
3Q23-LFS-G	PE	250/500	HNO3	0.5/1.0 mL	1.3	Kanapaha: Metals
3Q23-LFS-L	PE	250	HNO3	0.5 mL	1.3	Pace: Metals (Preserved in Field)
3Q23-LFS-N	PE	2000	HNO3	4 mL	1.3	Pace: Radium 226+228
Tubing Depth is <u>NA</u> ft below depth to water for every instance.						
Temperature: <u>84°F</u> Winds: <u>5 MPH</u> Cloud Cover: <u>Stormy</u> Precip: <u>Raining</u>						
Remarks: <u>N/A 10/23 N/A</u>						

DGS Groundwater Sampling Log



WELL ID:	LF-6	Location:	Latitude: 29°45'56.71"	Longitude: -82°23'59.75"	MSL @ TOC	Date In Service
Quarter:	3Q23	Date:	7-17-23	Well Type:	D	

Purging Data

Diameter(in)	2	Total well depth(ft)	14.52	Depth to water(ft)	4.88	Well capacity(L/ft)	0.6
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Distance from TOC to top of screen **4.04** ft. Purgung Method: PP Equipment Volume = 750 mL

$$\text{Well Vol} = (14.52 - 4.88) \times 0.6 = 7.64 \text{ L}$$

1/4 well vol. = 1.91

InitTubing Dpth(ft): 9.0 Final Tube Depl(ft): 9.0 Purge Start Time: 1240 Purge Stop time: 1317 Total Volume Purged 13.35

♣ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): <u>JCD</u>		Sampler(s) Signatures: <u>JCD</u>				
Sampling Method: PP	Tube Material: PP/S	Sampling Started Tube Dpth(ft): <u>70</u> Time: <u>1318</u>			Sampling completed Tube Dpth(ft): <u>80</u> Time: <u>1328</u>	
Field Decon: NO	Field Filtered: NO	Duplicate: YES <u>NO</u>	Acid ID# HNO3: <u>B50044</u>	H2SO4: <u>A50082</u>		
Sample Container Specification		Sample Preservation			Intended Analysis or method	
Sample ID:	Material	Vol(mL)	Preservative	Vol Added		
<u>3Q23-LF6-F</u>	PE	<u>4000/500</u>	Chill <6 C	n/a	n/a	Kanapaha: Physical
<u>3Q23-LF6-K</u>	PE	250	Chill <6 C	n/a	n/a	Pace: Anions
	PE	250	H2SO4/Chill	0.5 mL		Pace: NO ₂ /NO ₃ and TOC
	PE	1000	HNO3	2 mL		Pace: Gross Alpha
<u>3Q23-LF6-G</u>	PE	<u>250/500</u>	HNO3	0.5/1.0 mL	<u>1.3</u>	Kanapaha: Metals
<u>3Q23-LF6-L</u>	PE	250	HNO3	0.5 mL	<u>1.3</u>	Pace: Metals (Preserved in Field)
<u>3Q23-LF6-N</u>	PE	2000	HNO3	4 mL	<u>1.3</u>	Pace: Radium 226+228

Tubing Depth is $\frac{1}{4}$ ft below depth to water for every instance.

Temperature: 82°F Winds: N.W. 6 mph

Remarks:

Remarks:

✓ Well found, locked on arrival

ver: Partly Cloudy

✓ ✓ ✓

Well left locked on departure

Precip: 0

DGS Groundwater Sampling Log



WELL ID: EBLANK 1

Quarter: 3Q23 Date: 7-14-23

Purging Data

Purging Method: PP Equipment Volume = 750 mL

Well Collected At: 515-4

Purge Start Time: 1026 N/A JCD
7-14-23

Time of Depth Meter Decon: 1025

Purge Stop time: 1031 N/A JCD
7-14-23

• FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

Sampled By(Print): JCB	Sampler(s) Signatures: JCD	
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Sampling Method: PP	Tube Material: PP/S	Sampling Started Time:	Sampling completed Time:			
Field Decon: NO	Field Filtered: NO	Duplicate: YES (NO)	Acid ID# HNO3: D50044 H2SO4: D50032			
Sample Container Specification		Sample Preservation			Intended Analysis or method	
ID:	Material	Vol mL	Preservative	Vol Addt	final pH	
3Q23-EBLK1-B	PE	250	Chill <6 C	n/a	n/a	Pace Anions
3Q23-EBLK1-C	PE	250	H2SO4+Chill	0.5 mL	1.3	Pace NO2/NO3 and TOC
3Q23-EBLK1-D	PE	1000	HNO3	2 mL	1.3	Pace Gross Alpha
3Q23-EBLK1-E	PE	250 (500)	HNO3	0.5 (1) mL	1.3	Kanapaha Metals
3Q23-EBLK1-J	PE	250	HNO3	0.5 mL	1.3	Pace Metals
N/A	PE	2000	HNO3	4 mL		Pace Radium-226+228

✓ Well found locked on arrival	✓ Well left locked on departure
Temperature: 86°F	Winds: SW 6 mph
Cloud Cover: partly cloudy	Precip: 0
Remarks:	

DGS Groundwater Sampling Log



WELL ID: EBLANK2

Quarter: 3Q23

Date: 7-17-23

Purging Data

Purging Method: PP Equipment Volume = 750 mL

Well Collected At: CF-6

Purge Start Time: N/A

Time of Depth Meter Decon: 1335

Purge Stop time: N/A

* FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

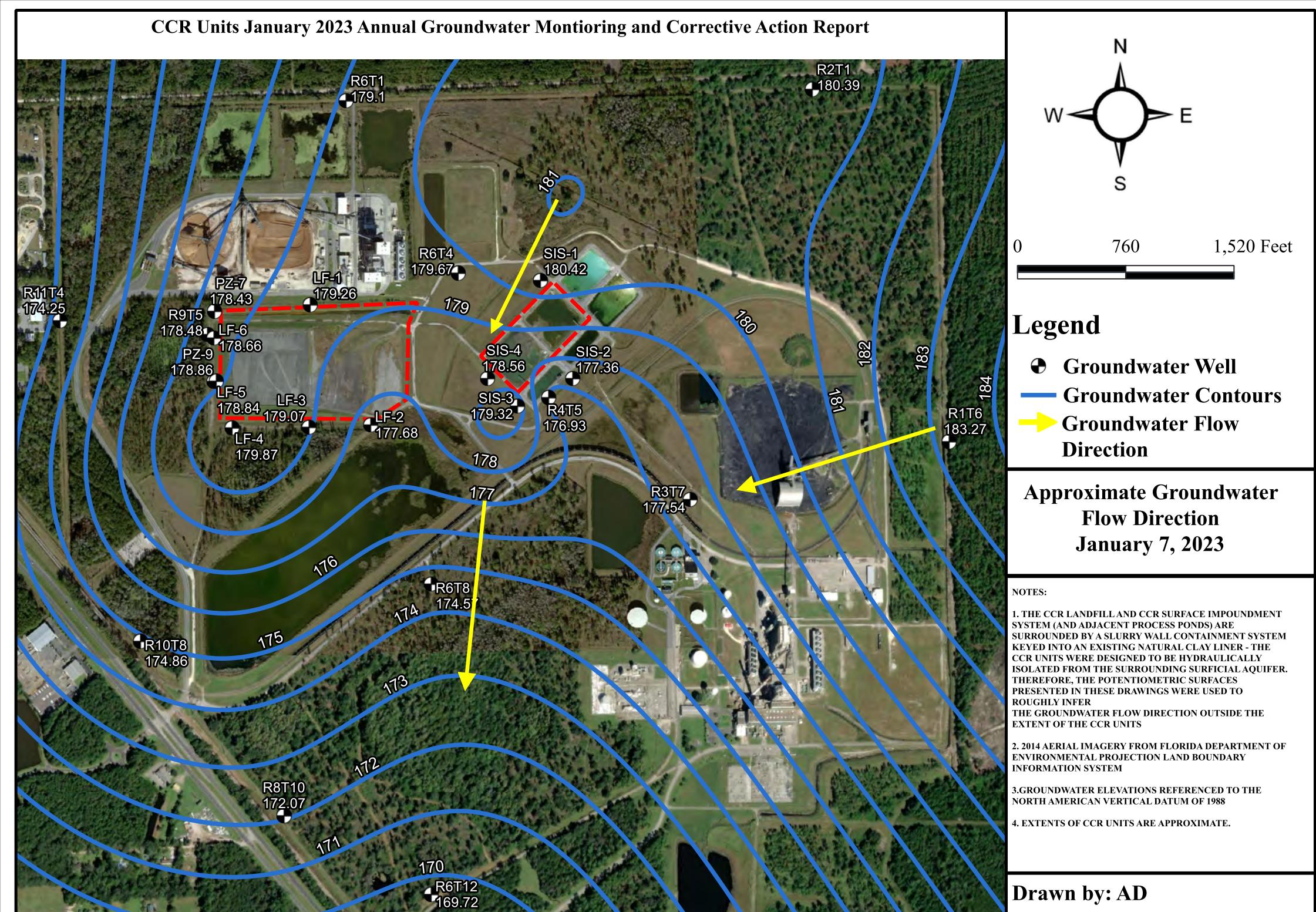
Sampled By(Print): JCD		Sampler(s) Signatures: <i>JCD</i>				
Sampling Method: PP	Tube Material: PP/S	Sampling Started Time: 1340		Sampling completed Time: 1345		
Field Decon: NO	Field Filtered: NO	Duplicate: YES (NO)	Acid ID# HNO3: DS0044	H2SO4: DS0032		
Sample Container Specification		Sample Preservation		Intended Analysis or method		
ID:	Material	Vol mL	Preservative	Vol Addn	final pH	
3Q23-EB/K2-K	PE	250	Chill <6 C	n/a	n/a	Pace Anions
N/A	PE	250	H2SO4+Chill	0.5 mL		Pace NO2/NO3 and TOC
N/A	PE	1000	HNO3	2 mL		Pace Gross Alpha
3Q23-EB/K2-G	PE	250 / 500	HNO3	0.5 / 1 mL	1.0	Kanapaha Metals
3Q23-EB/K2-L	PE	250	HNO3	0.5 mL	1.0	Pace Metals (<i>Preserved in Field</i>)
3Q23-EB/K2-N	PE	2000	HNO3	4 mL	1.0	Pace Radium 226+228

N/A Well found locked on arrival *N/A* Well left locked on departure
 Temperature: 73°F Winds: SW 7 mph Cloud Cover: partly cloudy Precip: 0
 Remarks:

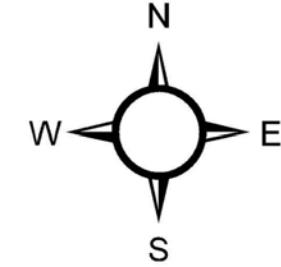
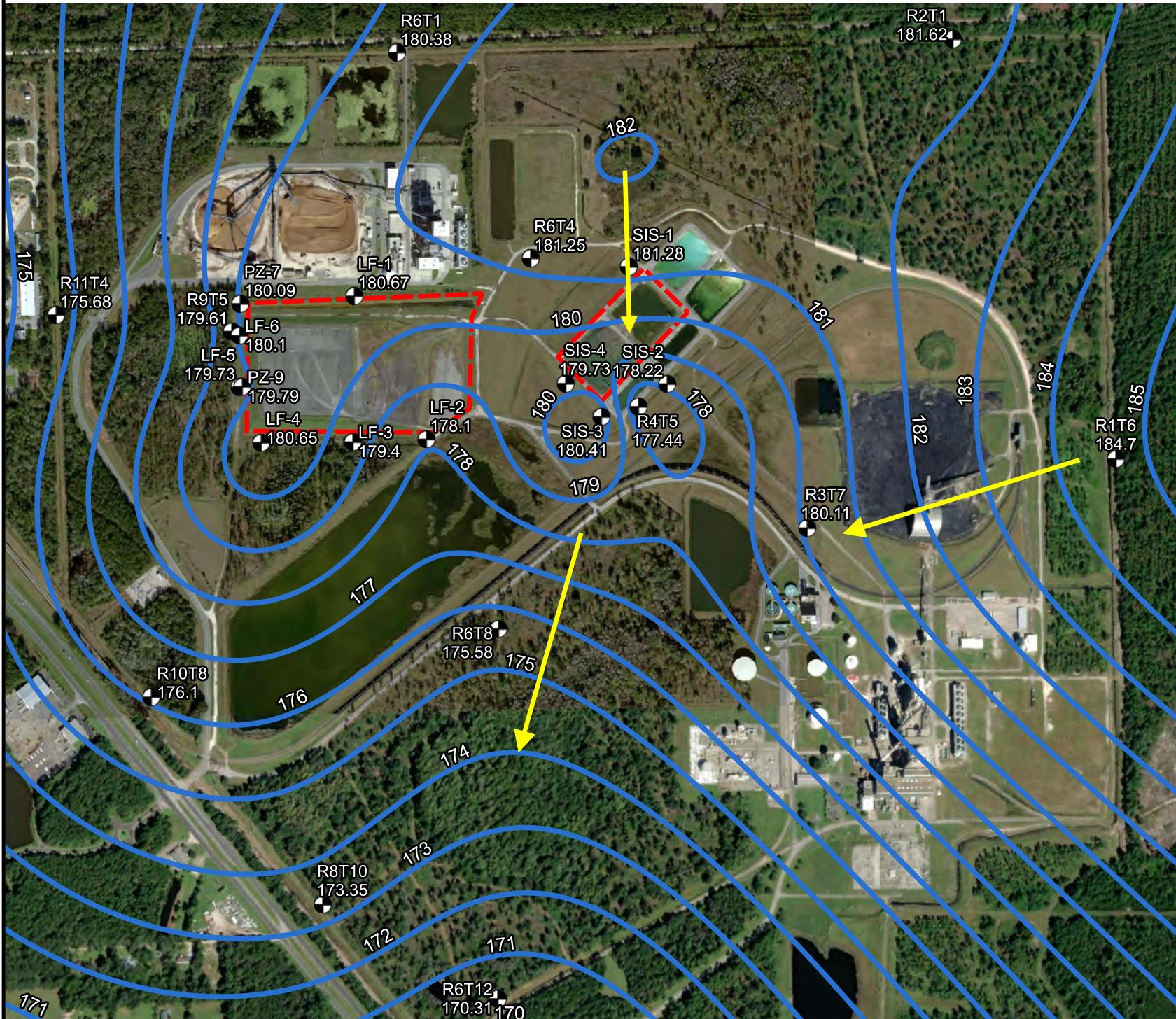
Attachment C

Potentiometric Contours and Site-Wide
Groundwater Flow Direction, January
2023 and July 2023

CCR Units January 2023 Annual Groundwater Monitoring and Corrective Action Report



CCR Units July 2023 Annual Groundwater Monitoring and Corrective Action Report



0 760 1,520 Feet

Legend

- Groundwater Well
- Groundwater Contours
- Groundwater Flow Direction

Approximate Groundwater Flow Direction July 9, 2023

NOTES:

1. THE CCR LANDFILL AND CCR SURFACE IMPOUNDMENT SYSTEM (AND ADJACENT PROCESS PONDS) ARE SURROUNDED BY A SLURRY WALL CONTAINMENT SYSTEM KEYED INTO AN EXISTING NATURAL CLAY LINER - THE CCR UNITS WERE DESIGNED TO BE HYDRAULICALLY ISOLATED FROM THE SURROUNDING SURFICIAL AQUIFER. THEREFORE, THE POTENSIOMETRIC SURFACES PRESENTED IN THESE DRAWINGS WERE USED TO ROUGHLY INFER THE GROUNDWATER FLOW DIRECTION OUTSIDE THE EXTENT OF THE CCR UNITS

2. 2014 AERIAL IMAGERY FROM FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION LAND BOUNDARY INFORMATION SYSTEM

3. GROUNDWATER ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988

4. EXTENTS OF CCR UNITS ARE APPROXIMATE.

Drawn by: AD

Deerhaven Generating Station Water Elevations

Date: 01/07/2023

<u>Well</u>	<u>Time</u>	<u>MSL @TOC</u>	<u>Depth to Water</u>	<u>Time Depth Mtr</u>		<u>Locked Arrival</u>	<u>Locked Depart.</u>
				Cleaned			
R1T6	11:42	188.95	5.68	11:41		✓	✓
R2T1	11:49	185.19	4.80	11:48		✓	✓
R3T7	13:43	182.55	5.01	13:42		✓	✓
R4T5	12:04	187.46	10.53	12:03		✓	✓
R6T1	13:05	185.28	6.18	13:04		✓	✓
R6T4	12:15	183.60	3.93	12:14		✓	✓
R6T8	13:38	177.97	3.40	13:37		✓	✓
R6T12	13:31	173.38	3.66	13:30		✓	✓
R8T10	13:24	177.40	5.33	13:23		✓	✓
R9T5	12:40	184.64	6.16	12:39		✓	✓
R10T8	13:16	181.42	6.56	13:15		✓	✓
R11T4	13:11	178.76	4.51	13:10		✓	✓
SIS1	11:56	185.11	4.69	11:55		✓	✓
SIS2	12:01	183.30	5.94	12:00		✓	✓
SIS3	12:08	183.11	3.79	12:07		✓	✓
SIS4	12:11	183.87	5.31	12:10		✓	✓
LF1	12:47	185.76	6.50	12:46		✓	✓
LF2	12:23	182.33	4.65	12:22		✓	✓
LF3	12:26	183.70	4.63	12:25		✓	✓
LF4	12:28	184.83	4.96	12:27		✓	✓
LF5	12:32	184.33	5.49	12:31		✓	✓
LF6	12:39	184.59	5.93	12:38		✓	✓
LF7	12:43	185.74	7.31	12:42		✓	✓
PZ8	12:54	213.13	34.05	12:53	No Lock	No Lock	
PZ9	12:34	184.79	5.93	12:33	No Lock	No Lock	
PZ10	12:57	203.79	25.91	12:56	No Lock	No Lock	

Deerhaven Generating Station Water Elevations

Date: 07/09/2023 (3Q23)

<u>Well</u>	<u>Time</u>	<u>MSL @TOC</u>	<u>Depth to Water</u>	<u>Water Elevation</u>
R1T6	8:38	188.95	4.25	184.70
R2T1	8:45	185.19	3.57	181.62
R3T7	10:37	182.55	2.44	180.11
R4T5	9:08	187.46	10.02	177.44
R6T1	10:03	185.28	4.90	180.38
R6T4	9:18	183.60	2.35	181.25
R6T8	10:33	177.97	2.39	175.58
R6T12	10:28	173.38	3.07	170.31
R8T10	10:23	177.40	4.05	173.35
R9T5	9:32	184.64	5.03	179.61
R10T8	10:17	181.42	5.32	176.10
R11T4	10:11	178.76	3.08	175.68
SIS1	9:21	185.11	3.83	181.28
SIS2	9:04	183.30	5.08	178.22
SIS3	9:12	183.11	2.70	180.41
SIS4	9:15	183.87	4.14	179.73
LF1	9:26	185.76	5.09	180.67
LF2	9:47	182.33	4.23	178.10
LF3	9:44	183.70	4.30	179.40
LF4	9:42	184.83	4.18	180.65
LF5	9:37	184.33	4.60	179.73
LF6	9:35	184.59	4.49	180.10
LF7	9:29	185.74	5.65	180.09
PZ8	9:52	213.13	33.99	179.14
PZ9	9:39	184.79	5.00	179.79
PZ10	9:56	203.79	25.01	178.78

Checked by: Kent Brakefield