

Gainesville Regional Utilities Deerhaven Generating Station

Coal Combustion Residuals Units 2019 Annual Groundwater Monitoring and Corrective Action Report



Prepared for:

Gainesville Regional Utilities
Gainesville, Florida



Prepared by:

Innovative Technical Solutions
Gainesville, Florida



28 January 2020

TABLE OF CONTENTS

| | |
|---------------------------------------------------------------|-----------|
| 1.0 Introduction | 4 |
| 2.0 Well Installation and Decommissioning | 4 |
| 3.0 Key Actions Completed | 5 |
| 4.0 Summary of Statistical Analysis Results | 8 |
| 4.1 Appendix III Parameters | 8 |
| 4.2 Appendix IV Parameters | 8 |
| 5.0 Groundwater Monitoring Program Status of CCR Units | 12 |
| 6.0 Upcoming Activities | 12 |
| 7.0 Rate and Direction of Groundwater Flow | 12 |
| 8.0 References | 14 |
| 9.0 Professional Engineer Certification | 15 |

LIST OF TABLES

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Table 2-1. Summary of Well IDs, Coordinates and Upgradient/Downgradient Designation for Each CCR Unit | 5 |
| Table 3-1. Sampling Dates and Total Samples Collected from Each CCR Unit Groundwater Monitoring Well, with Highlighted Cells Indicating the Range of Background Data for Appendix III Parameters | 7 |
| Table 4-1. Appendix III Parameters Observed at a SSI over Background for the SIS Wells | 8 |
| Table 4-2. Appendix III Parameters Observed at a SSI Over Background for the Landfill Wells | 8 |
| Table 4-3. Appendix IV Parameters Statistical Analysis Results at SIS Wells | 10 |
| Table 4-4. Appendix IV Parameters Statistical Analysis Results at Landfill Wells | 11 |

ATTACHMENTS

| | |
|---------------|-----------------------------------------------------------------------------------------------|
| Attachment A. | Background Sampling Laboratory Analysis Reports |
| Attachment B. | Background Sampling Field and Calibration Logs |
| Attachment C. | Potentiometric Contours and Site-Wide Groundwater Flow Direction, January 2019, and July 2019 |

List of Abbreviations

| | |
|------|------------------------------------|
| AMP | Assessment Monitoring Program |
| CCR | Coal Combustion Residuals |
| GWMP | Groundwater Monitoring Plan |
| GWPS | Groundwater Protection Standard |
| GRU | Gainesville Regional Utilities |
| ITS | Innovative Technical Services |
| SIS | Surface Impoundment System |
| SSI | Statistically Significant Increase |
| UES | Universal Engineering Sciences |

1.0 Introduction

The Deerhaven Generating Station (site) has two coal combustion residuals (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 coal-fired combustion unit (i.e., Unit #2) through a piping network which allows discharge to either pond. The CCR landfill primarily accepts flue gas desulfurization byproduct from the Unit #2 scrubbing process. The landfill also accepts the bottom ash that is periodically (i.e., approximately once every 5 years) excavated from the SIS and lime sludge that is periodically dredged from front-end treatment sludge ponds. Occasionally, fly ash is also deposited in the landfill when it is not 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, the facility entered into an Assessment Monitoring Program (AMP) due to detection of Appendix III parameters at concentrations above the respective background levels (IWCS 2018a).

2.0 Well Installation and Decommissioning

A network of 8 groundwater monitoring wells (i.e., 1 upgradient and 3 downgradient wells for each CCR unit) were installed on 7 March 2017 (UES 2017) to monitor the SIS and landfill. These wells are used to supplement existing wells to develop an independent groundwater monitoring network for each CCR unit. The three downgradient wells for 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).

Table 2-1 below provides a summary of each well's ID, coordinates, and whether the well is considered upgradient (denoted with a "U") or downgradient (denoted with a "D") from its respective CCR unit. Please note that the coordinates are referenced to the North American Datum of 1983, Florida North 0903.

Table 2-1. Summary of Well IDs, Coordinates and Upgradient/Downgradient Designation for Each CCR Unit

| CCR SIS | | | |
|---------------------|-----------------|----------------|------------|
| Well ID | Northing | Easting | U/D |
| SIS-1 | 285,024 | 2,637,081 | U |
| R6T4 | 285,074 | 2,636,502 | U |
| R4T5 | 284,200 | 2,637,137 | D |
| SIS-2 | 284,334 | 2,637,307 | D |
| SIS-3 | 284,141 | 2,636,920 | D |
| SIS-4 | 284,335 | 2,636,709 | D |
| CCR Landfill | | | |
| Well ID | Northing | Easting | U/D |
| LF-1 | 284,852 | 2,635,464 | U |
| LF-2 | 284,008 | 2,635,888 | D |
| LF-3 | 283,992 | 2,635,457 | D |
| LF-4 | 283,987 | 2,634,914 | D |

3.0 Key Actions Completed

The following key actions associated with groundwater monitoring of the CCR units have been completed in 2019 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 each sample was collected and the period used to establish Appendix III prediction limits are included in Table 3-1 below. It should be noted that historical groundwater monitoring data are incorporated into the dataset for wells R6T4 and R4T5.
- Statistical analysis of the downgradient measurements of Appendix IV parameters for each CCR unit for the initial AMP sampling events. A summary of this analysis is presented in the next section.
- Drainage swale modifications around the landfill were conducted starting on February 5th, 2019 to expand the capacity of the southern and western stormwater channels and install an additional culvert near the southeast corner of the landfill to adequately handle run-off from a 25-year 24-hour storm event. The soil excavated to expand the channel capacity was relocated into the landfill. The surface soil on the southern and western sides of the landfill have been documented as a potential alternative source of the elevated levels of lithium and molybdenum in the downgradient wells of the landfill (IWCS 2018b) . LF-2, LF-3, and LF-4 were temporarily removed and reinstalled as part of this work, and

additional groundwater samples were taken to assess the impact of this project.
This project concluded on May 9th, 2019.

Table 3-1. Sampling Dates and Total Samples Collected from Each CCR Unit Groundwater Monitoring Well, with Highlighted Cells Indicating the Range of Background Data for Appendix III Parameters.

| Date | SIS | | | | | | Landfill | | | |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | SIS-1 | R6T4 | R4T5 | SIS-2 | SIS-3 | SIS-4 | LF-1 | LF-2 | LF-3 | LF-4 |
| 10/7/2015 | | X | X | | | | | | | |
| 1/25/2016 | | X | X | | | | | | | |
| 4/4/2016 | | X | X | | | | | | | |
| 7/27/2016 | | X | | | | | | | | |
| 7/28/2016 | | | X | | | | | | | |
| 10/18/2016 | | X | | | | | | | | |
| 10/20/2016 | | | X | | | | | | | |
| 11/28/2016 | | | X | | | | | | | |
| 1/9/2017 | | X | X | | | | | | | |
| 4/2/2017 | | X | | | | | | | | |
| 4/5/2017 | | | X | | | | | | | |
| 4/17/2017 | X | | | | X | X | X | | | |
| 4/18/2017 | | | | X | | | | X | X | X |
| 5/15/2017 | X | | | X | | | X | X | X | |
| 5/16/2017 | | | | | X | X | | | | X |
| 5/30/2017 | X | | | | | X | X | X | X | X |
| 5/31/2017 | | | | X | X | | | | | |
| 6/19/2017 | X | | | X | X | X | X | | | |
| 6/20/2017 | | | | | | | | X | X | X |
| 7/9/2017 | X | X | | | | | X | | | |
| 7/10/2017 | | | X | | | | | | | |
| 7/11/2017 | | | | X | X | X | | X | X | X |
| 7/31/2017 | X | | | X | X | X | X | X | X | X |
| 8/21/2017 | X | | | | X | X | X | | | |
| 8/22/2017 | | | | X | | | | X | X | X |
| 9/18/2017 | X | | | | | | X | | X | X |
| 9/19/2017 | | | | X | X | X | | X | | |
| 1/23/2018 | X | X | | | | | X | | | |
| 1/24/2018 | | | X | X | X | X | | | | X |
| 1/25/2018 | | | | | | | | X | X | |
| 2/14/2018 | X | X | X | | X | | X | | | |
| 2/15/2018 | | | | X | | X | | X | X | X |
| 3/7/2018 | X | X | | | X | X | X | | | |
| 3/8/2018 | | | X | X | | | | X | X | X |
| 4/3/2018 | X | X | X | X | | | X | | | |
| 4/4/2018 | | | | | X | X | | X | X | X |
| 7/17/2018 | X | X | | | | | X | | | |
| 7/18/2018 | | | X | X | | X | | X | X | X |
| 7/19/2018 | | | | | X | | | | | |
| 1/16/2019 | X | X | X | X | X | X | X | X | X | X |
| 5/9/2019 | | | | | | | X | X | X | X |
| 7/16/2019 | X | X | X | | | | X | | | |
| 7/17/2019 | | | | X | | | | X | X | X |
| 7/18/2019 | | | | | X | X | | | | |
| 10/25/2019 | | | | | | | | X | X | X |
| Total Samples Collected | 15 | 15 | 16 | 15 | 15 | 15 | 16 | 17 | 17 | 17 |

4.0 Summary of Statistical Analysis Results

4.1 Appendix III Parameters

Prediction intervals with retesting developed in the 2017 annual report were used to evaluate whether Appendix III parameters in downgradient wells sampled for each CCR unit were measured at a statistically significant increase (SSI) above the respective background concentration. Table 4-1 and 4-2 summarize this analysis for Appendix III parameters. While SSI of total dissolved solids (TDS) and fluoride above the respective background concentrations were observed for the SIS during 2018, only a SSI of fluoride continued to occur above the background level for 2019. For the landfill, a SSI over background concentrations occurred for all Appendix III parameters except for calcium for at least one downgradient well. A SSI over background for TDS occurred for all landfill downgradient wells in January only; a SSI for TDS did not occur in May, July or October for LF-2, LF-3, or LF-4. Results representing a SSI over background for LF-3 for chloride and pH occurred in January only and did not occur in May, July or October. Fluoride, sulfate and boron had a SSI over background at some or all wells in all sampling events, while calcium had no SSI in all sampling events. 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)).

Table 4-1. Appendix III Parameters Observed at a SSI over Background for the SIS Wells

| Appendix III Parameter | Retest Strategy | Prediction Limit (mg/L) | Wells with an SSI | | | |
|------------------------|-----------------|-------------------------|-------------------|-------|-------|------|
| | | | SIS-2 | SIS-3 | SIS-4 | R4T5 |
| Fluoride | 1-of-2 | 0.34 | X | | | |

Table 4-2. Appendix III Parameters Observed at a SSI Over Background for the Landfill Wells

| Parameter | Retest Strategy | Prediction Limit (mg/L) | Wells with an SSI | | |
|-----------|-----------------|-------------------------|-------------------|------|------|
| | | | LF-2 | LF-3 | LF-4 |
| Boron | 1-of-3 | 0.33 | | X | X |
| Chloride | 1-of-3 | 21.8 | X | X | |
| pH | 1-of-3 | 5.10 - 6.42 | | X | X |
| Sulfate | 1-of-3 | 21.4 | X | X | X |
| TDS | 1-of-3 | 385 | X | X | X |
| Fluoride | 1-of-4 | 0.12 | X | X | X |

4.2 Appendix IV Parameters

Table 4-3 and Table 4-4 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 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 statistically significant concentration above the GWPS (i.e., exceedance) is shown. No method is listed for parameters which never had a result above the GWPS for any sampling events. During 2018, lithium and molybdenum were found to exceed the GWPS at the CCR landfill for well LF-4 and LF-3, respectively. However, the surface soil outside of (but adjacent to) the western and southern sides of the landfill was found to contain lithium and molybdenum at elevated levels, was identified as a potential alternative source of these parameters, and was excavated and relocated into the landfill during this reporting year. Lithium and molybdenum continued to exceed the GWPS for LF-4 and LF-3 respectively during the January sampling event, but none of the three subsequent samples collected during 2019 after the surface soil was excavated and relocated into the landfill had lithium or molybdenum above the GWPS. Statistical analysis of the data collected during 2019 along with historical data suggests that the molybdenum concentration at LF-3 is no longer above its GWPS. Therefore, LF-4 is the only remaining well with an exceedance (i.e., lithium). Including the January 2020 sampling event, 4 total samples will have been collected from each of the reinstalled wells since the soil relocation project. The additional January 2020 sample data will be evaluated to further assess the overall impact of soil excavation and relocation.

As required by §257.90(e)(3), the laboratory results for all background groundwater sampling events are included with this report as Attachment A. Field logs including pH readings (i.e., an Appendix III parameter) and the depth-to-liquid measurements for all sampling events (and for a quarterly sampling event used to estimate average site-wide groundwater flow rate and direction, as described in Section 7.0) are included in this report as Attachment B.

Table 4-3. Appendix IV Parameters Statistical Analysis Results at SIS Wells

| Parameter | Detected in Downgradient Wells? | GWPS | | GWPS Type | Statistical Method to Assess Well Data With 1 or More Measurements Above the GWPS | Statistically Significant Exceedance Above the GWPS? |
|--------------------|---------------------------------|-------|-------|------------|-----------------------------------------------------------------------------------|------------------------------------------------------|
| | | Value | Units | | | |
| Antimony | Yes | 6 | ug/L | MCL | - | NO |
| Lithium | Yes | 40 | ug/L | MCL | - | NO |
| Thallium | Yes | 3 | ug/L | Background | Non-Parametric Prediction Limit with 1-of-2 Retest Frequency | NO |
| Fluoride | Yes | 4 | mg/L | MCL | - | NO |
| Arsenic | Yes | 10 | ug/L | MCL | Non-Parametric LCL for Median | 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 | Non-Parametric LCL for Median | NO |

Table 4-4. Appendix IV Parameters Statistical Analysis Results at Landfill Wells

| Parameter | Detected in Downgradient Wells? | GWPS | | GWPS Type | Statistical Method to Assess Well Data With 1 or More Measurements Above the GWPS | Statistically Significant Exceedance Above the GWPS? |
|--------------------|---------------------------------|-------|-------|------------|-----------------------------------------------------------------------------------|------------------------------------------------------|
| | | Value | Units | | | |
| Antimony | Yes | 6 | ug/L | MCL | Non-Parametric LCL for Median | NO |
| Lithium | Yes | 40 | ug/L | MCL | Parametric 95% LCL for Mean | YES ¹ |
| Thallium | Yes | 3 | ug/L | Background | - | 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 | No | 5 | ug/L | MCL | - | NO |
| Chromium | Yes | 100 | ug/L | MCL | - | NO |
| Cobalt | Yes | 6 | ug/L | MCL | - | NO |
| Lead | Yes | 15 | ug/L | MCL | - | NO |
| Molybdenum | Yes | 100 | ug/L | MCL | Parametric 95% LCL for Mean | 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 | NO |

¹ Individual lithium and molybdenum sample concentrations were observed above the GWPS during the January sampling event, but were below the respective GWPS for the three subsequent sampling events after the excavation and relocation of the surface soil into the landfill.

5.0 Groundwater Monitoring Program Status of CCR Units

The final set of sampling results from the final sampling event, which occurred in October, were received from the laboratory in December 2019. 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 10 January 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.

6.0 Upcoming Activities

Groundwater sampling will continue under the AMP, including January and July 2020 (i.e., semi-annual) sampling of all previously-detected Appendix III/IV parameters and July 2020 (i.e., annual) sampling of all other Appendix III/IV parameters. Monitoring of Appendix III/IV parameters under the AMP will continue until occurrence of two subsequent 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 and cadmium were 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 will be monitored semi-annually. Background well prediction limits for Appendix III parameters will be updated in 2020 when 8 new samples are collected for a given background well according to the GWMP.

As discussed in Section 4, an alternative source of lithium and molybdenum was identified (IWCS 2018a). GRU relocated the surface soils to within the landfill, and additional sampling events for the reinstalled wells were conducted. After the January 2020 sampling event, these wells will have 4 samples each. Further statistical analysis will be conducted after this 4th sampling event to evaluate whether the data for the reinstalled wells is different to a statistically significant degree from data collected for the replaced wells. This analysis will be used to evaluate whether to continue including data from before the soil location project in statistical evaluation of LF-2, LF-3, and LF-4.

7.0 Rate and Direction of Groundwater Flow

The CCR landfill and SIS (and adjacent process ponds) are 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., 14th of January and 15th of July, 2019 respectively) were used to develop an estimate of the rate and direction of groundwater flow at the site. Potentiometric contour maps developed from this data are presented in Attachment C. 2013 AutoCAD Civil 3D software was used to find the average gradient of the potentiometric surface developed from this dataset. The average gradient was estimated to be 0.003 ft/ft.

As described in the Groundwater Sampling and Analysis Program for the CCR Units (IWCS 2017), 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 native, in-place 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 0.05 feet per day.

8.0 References

- IWCS (2017). Groundwater Sampling and Analysis Program for the Coal Combustion Residuals Units. Prepared for Gainesville Regional Utilities, Deerhaven Generating Station by Innovative Waste Consulting Services, September 2017.
- IWCS (2018a). 2018 Annual Groundwater Monitoring and Corrective Action Report. Prepared for Gainesville Regional Utilities, Deerhaven Generating Station by Innovative Waste Consulting Services, January 2018.
- IWCS (2018b). Alternative Source Demonstration for Groundwater Impacts Near the Coal Combustion Residuals Landfill. Prepared for Gainesville Regional Utilities, Deerhaven Generating Station by Innovative Waste Consulting Services, September 2018.
- IWCS (2019). 2018 Annual Groundwater Monitoring and Corrective Action Report. Prepared for Gainesville Regional Utilities, Deerhaven Generating Station by Innovative Waste Consulting Services, January 2019.
- 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. 10 July, 2019, Draft Report.
- 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. 6 April 2017.

9.0 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 Waste Consulting Services, LLC

PE Registration State: Florida

PE License No.: 85405

This item has been digitally signed and sealed by James R Wally 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 07, 2019

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

RE: Project: D19A012
Pace Project No.: 35443929

Dear Mr. Boudreau:

Enclosed are the analytical results for sample(s) received by the laboratory on January 23, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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: D19A012

Pace Project No.: 35443929

Pennsylvania Certification IDs

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
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 #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
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
Maryland Certification: #346
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
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
Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: D19A012

Pace Project No.: 35443929

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|------------|--------|----------------|----------------|
| 35443929001 | D19A012-01 | Water | 01/15/19 11:48 | 01/23/19 12:00 |
| 35443929002 | D19A012-02 | Water | 01/15/19 15:23 | 01/23/19 12:00 |
| 35443929003 | D19A012-03 | Water | 01/17/19 17:20 | 01/23/19 12:00 |
| 35443929004 | D19A012-04 | Water | 01/16/19 11:20 | 01/23/19 12:00 |
| 35443929005 | D19A012-05 | Water | 01/14/19 10:16 | 01/23/19 12:00 |
| 35443929006 | D19A012-06 | Water | 01/16/19 09:05 | 01/23/19 12:00 |
| 35443929007 | D19A012-07 | Water | 01/18/19 10:16 | 01/23/19 12:00 |
| 35443929008 | D19A012-08 | Water | 01/18/19 16:52 | 01/23/19 12:00 |
| 35443929009 | D19A012-09 | Water | 01/18/19 15:54 | 01/23/19 12:00 |
| 35443929010 | D19A012-10 | Water | 01/17/19 14:01 | 01/23/19 12:00 |
| 35443929011 | D19A012-11 | Water | 01/17/19 13:57 | 01/23/19 12:00 |
| 35443929012 | D19A012-12 | Water | 01/17/19 12:32 | 01/23/19 12:00 |
| 35443929013 | D19A012-13 | Water | 01/19/19 09:04 | 01/23/19 12:00 |
| 35443929014 | D19A012-14 | Water | 01/17/19 12:40 | 01/23/19 12:00 |

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SAMPLE ANALYTE COUNT

Project: D19A012

Pace Project No.: 35443929

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|------------|-----------|----------|-------------------|------------|
| 35443929001 | D19A012-01 | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 2 | PASI-O |
| | | EPA 353.2 | AMP | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| 35443929002 | D19A012-02 | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 2 | PASI-O |
| | | EPA 353.2 | AMP | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| 35443929003 | D19A012-03 | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 2 | PASI-O |
| | | EPA 353.2 | AMP | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| 35443929004 | D19A012-04 | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| | | EPA 353.2 | AMP | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| 35443929005 | D19A012-05 | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 2 | PASI-O |
| | | EPA 353.2 | AMP | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| 35443929006 | D19A012-06 | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| | | EPA 353.2 | AMP | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| 35443929007 | D19A012-07 | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| | | EPA 353.2 | AMP | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| 35443929008 | D19A012-08 | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 2 | PASI-O |
| | | EPA 353.2 | AMP | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| 35443929009 | D19A012-09 | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | CMB, SEW | 2 | PASI-O |
| | | EPA 353.2 | AMP | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| 35443929010 | D19A012-10 | EPA 900.0 | NEG | 1 | PASI-PA |

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SAMPLE ANALYTE COUNT

Project: D19A012
Pace Project No.: 35443929

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|------------|-----------|----------|-------------------|------------|
| 35443929011 | D19A012-11 | EPA 300.0 | CMB, SEW | 2 | PASI-O |
| | | EPA 353.2 | SEW | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |
| | | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| | | EPA 353.2 | SEW | 1 | PASI-O |
| 35443929012 | D19A012-12 | SM 5310B | FGF | 1 | PASI-O |
| | | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| | | EPA 353.2 | SEW | 1 | PASI-O |
| 35443929013 | D19A012-13 | SM 5310B | FGF | 1 | PASI-O |
| | | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 2 | PASI-O |
| | | EPA 353.2 | SEW | 1 | PASI-O |
| 35443929014 | D19A012-14 | SM 5310B | FGF | 1 | PASI-O |
| | | EPA 900.0 | NEG | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| | | EPA 353.2 | SEW | 1 | PASI-O |
| | | SM 5310B | FGF | 1 | PASI-O |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-01 **Lab ID: 35443929001** Collected: 01/15/19 11:48 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|--------------|-------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 13.5 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 03:12 | 16887-00-6 | |
| Sulfate | 2.5 U | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 03:12 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | | | | | | | | |
| Analytical Method: EPA 353.2 | | | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.065 | mg/L | 0.050 | 0.025 | 1 | | 01/25/19 18:34 | | |
| 5310B TOC | | | | | | | | | |
| Analytical Method: SM 5310B | | | | | | | | | |
| Total Organic Carbon | 5.5 | mg/L | 1.0 | 0.50 | 1 | | 01/30/19 04:45 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-02 **Lab ID: 35443929002** Collected: 01/15/19 15:23 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|--------------|-------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 5.4 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 03:34 | 16887-00-6 | |
| Sulfate | 3.1 I | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 03:34 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | | | | | | | | |
| Analytical Method: EPA 353.2 | | | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.62 | mg/L | 0.050 | 0.025 | 1 | | 01/25/19 18:35 | | |
| 5310B TOC | | | | | | | | | |
| Analytical Method: SM 5310B | | | | | | | | | |
| Total Organic Carbon | 1.2 | mg/L | 1.0 | 0.50 | 1 | | 01/30/19 04:59 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-03 **Lab ID: 35443929003** Collected: 01/17/19 17:20 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|-------------|------------------------------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 17.0 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 03:57 | 16887-00-6 | |
| Sulfate | 104 | mg/L | 10.0 | 5.0 | 2 | | 01/31/19 09:30 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrogen, NO2 plus NO3 | 2.6 | mg/L | 0.050 | 0.025 | 1 | | 01/25/19 18:36 | | |
| 5310B TOC | | Analytical Method: SM 5310B | | | | | | | |
| Total Organic Carbon | 2.4 | mg/L | 1.0 | 0.50 | 1 | | 01/30/19 05:15 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-04 **Lab ID: 35443929004** Collected: 01/16/19 11:20 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|--------------|------------------------------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 3.1 I | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 07:17 | 16887-00-6 | |
| Fluoride | 0.23 | mg/L | 0.050 | 0.034 | 1 | | 01/31/19 07:17 | 16984-48-8 | |
| Sulfate | 2.5 U | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 07:17 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.066 | mg/L | 0.050 | 0.025 | 1 | | 01/25/19 18:37 | | |
| 5310B TOC | | Analytical Method: SM 5310B | | | | | | | |
| Total Organic Carbon | 37.2 | mg/L | 1.0 | 0.50 | 1 | | 01/30/19 05:29 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-05 **Lab ID: 35443929005** Collected: 01/14/19 10:16 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|----------------|-------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 327 | mg/L | 25.0 | 12.5 | 5 | | 01/30/19 22:59 | 16887-00-6 | |
| Sulfate | 44.6 | mg/L | 25.0 | 12.5 | 5 | | 01/30/19 22:59 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | | | | | | | | |
| Analytical Method: EPA 353.2 | | | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.025 U | mg/L | 0.050 | 0.025 | 1 | | 01/25/19 18:39 | | |
| 5310B TOC | | | | | | | | | |
| Analytical Method: SM 5310B | | | | | | | | | |
| Total Organic Carbon | 2.0 | mg/L | 1.0 | 0.50 | 1 | | 01/30/19 05:43 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-06 **Lab ID: 35443929006** Collected: 01/16/19 09:05 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|----------------|------------------------------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 5.6 | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 23:21 | 16887-00-6 | |
| Fluoride | 0.076 | mg/L | 0.050 | 0.034 | 1 | | 01/30/19 23:21 | 16984-48-8 | |
| Sulfate | 35.0 | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 23:21 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.042 I | mg/L | 0.050 | 0.025 | 1 | | 01/25/19 18:43 | | |
| 5310B TOC | | Analytical Method: SM 5310B | | | | | | | |
| Total Organic Carbon | 6.2 | mg/L | 1.0 | 0.50 | 1 | | 01/30/19 06:38 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-07 **Lab ID: 35443929007** Collected: 01/18/19 10:16 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|--------------|-------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 8.4 | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 23:44 | 16887-00-6 | |
| Fluoride | 0.36 | mg/L | 0.050 | 0.034 | 1 | | 01/30/19 23:44 | 16984-48-8 | |
| Sulfate | 3.0 I | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 23:44 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | | | | | | | | |
| Analytical Method: EPA 353.2 | | | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.071 | mg/L | 0.050 | 0.025 | 1 | | 01/25/19 18:44 | | |
| 5310B TOC | | | | | | | | | |
| Analytical Method: SM 5310B | | | | | | | | | |
| Total Organic Carbon | 56.7 | mg/L | 1.0 | 0.50 | 1 | | 01/30/19 06:51 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-08 **Lab ID: 35443929008** Collected: 01/18/19 16:52 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|-------------|------------------------------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 12.8 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 00:06 | 16887-00-6 | |
| Sulfate | 8.4 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 00:06 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrogen, NO2 plus NO3 | 1.4 | mg/L | 0.050 | 0.025 | 1 | | 01/25/19 18:45 | | |
| 5310B TOC | | Analytical Method: SM 5310B | | | | | | | |
| Total Organic Carbon | 13.3 | mg/L | 1.0 | 0.50 | 1 | | 01/31/19 09:39 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-09 **Lab ID: 35443929009** Collected: 01/18/19 15:54 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|----------------|-------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 49.4 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 00:29 | 16887-00-6 | |
| Sulfate | 111 | mg/L | 10.0 | 5.0 | 2 | | 02/01/19 13:15 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | | | | | | | | |
| Analytical Method: EPA 353.2 | | | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.037 I | mg/L | 0.050 | 0.025 | 1 | | 01/25/19 18:46 | | |
| 5310B TOC | | | | | | | | | |
| Analytical Method: SM 5310B | | | | | | | | | |
| Total Organic Carbon | 30.2 | mg/L | 1.0 | 0.50 | 1 | | 01/31/19 09:54 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-10 **Lab ID: 35443929010** Collected: 01/17/19 14:01 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|--------------|-------|-------|-------|----|----------|----------------|------------|-------|
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 118 | mg/L | 10.0 | 5.0 | 2 | | 02/01/19 13:38 | 16887-00-6 | |
| Sulfate | 88.3 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 00:51 | 14808-79-8 | J(M1) |
| 353.2 Nitrogen, NO2/NO3 pres. | | | | | | | | | |
| Analytical Method: EPA 353.2 | | | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.088 | mg/L | 0.050 | 0.025 | 1 | | 01/26/19 10:26 | | |
| 5310B TOC | | | | | | | | | |
| Analytical Method: SM 5310B | | | | | | | | | |
| Total Organic Carbon | 7.5 | mg/L | 1.0 | 0.50 | 1 | | 01/31/19 12:31 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-11 **Lab ID: 35443929011** Collected: 01/17/19 13:57 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|----------------|------------------------------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 7.3 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 01:58 | 16887-00-6 | |
| Fluoride | 0.083 | mg/L | 0.050 | 0.034 | 1 | | 01/31/19 01:58 | 16984-48-8 | |
| Sulfate | 11.3 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 01:58 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.025 U | mg/L | 0.050 | 0.025 | 1 | | 01/26/19 10:30 | | |
| 5310B TOC | | Analytical Method: SM 5310B | | | | | | | |
| Total Organic Carbon | 1.6 | mg/L | 1.0 | 0.50 | 1 | | 01/31/19 12:43 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-12 **Lab ID: 35443929012** Collected: 01/17/19 12:32 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|----------------|-------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 32.5 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 02:21 | 16887-00-6 | |
| Fluoride | 0.13 | mg/L | 0.050 | 0.034 | 1 | | 01/31/19 02:21 | 16984-48-8 | |
| Sulfate | 37.0 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 02:21 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | | | | | | | | |
| Analytical Method: EPA 353.2 | | | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.025 U | mg/L | 0.050 | 0.025 | 1 | | 01/26/19 10:32 | | |
| 5310B TOC | | | | | | | | | |
| Analytical Method: SM 5310B | | | | | | | | | |
| Total Organic Carbon | 10.1 | mg/L | 1.0 | 0.50 | 1 | | 01/31/19 12:59 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-13 **Lab ID: 35443929013** Collected: 01/19/19 09:04 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|--------------|-------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 9.6 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 02:43 | 16887-00-6 | |
| Sulfate | 36.0 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 02:43 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | | | | | | | | |
| Analytical Method: EPA 353.2 | | | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.078 | mg/L | 0.050 | 0.025 | 1 | | 01/26/19 10:33 | | |
| 5310B TOC | | | | | | | | | |
| Analytical Method: SM 5310B | | | | | | | | | |
| Total Organic Carbon | 1.2 | mg/L | 1.0 | 0.50 | 1 | | 01/31/19 13:13 | 7440-44-0 | |

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ANALYTICAL RESULTS

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-14 **Lab ID: 35443929014** Collected: 01/17/19 12:40 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------------|----------------|-------|-------|-------|----|----------|----------------|------------|------|
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 2.5 U | mg/L | 5.0 | 2.5 | 1 | | 02/06/19 23:16 | 16887-00-6 | |
| Fluoride | 0.034 U | mg/L | 0.050 | 0.034 | 1 | | 02/06/19 23:16 | 16984-48-8 | |
| Sulfate | 2.5 U | mg/L | 5.0 | 2.5 | 1 | | 02/06/19 23:16 | 14808-79-8 | |
| 353.2 Nitrogen, NO2/NO3 pres. | | | | | | | | | |
| Analytical Method: EPA 353.2 | | | | | | | | | |
| Nitrogen, NO2 plus NO3 | 0.048 I | mg/L | 0.050 | 0.025 | 1 | | 01/26/19 10:34 | | |
| 5310B TOC | | | | | | | | | |
| Analytical Method: SM 5310B | | | | | | | | | |
| Total Organic Carbon | 0.50 U | mg/L | 1.0 | 0.50 | 1 | | 01/31/19 13:28 | 7440-44-0 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: D19A012
Pace Project No.: 35443929

QC Batch: 511820 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35443929001, 35443929002, 35443929003

METHOD BLANK: 2763426 Matrix: Water
Associated Lab Samples: 35443929001, 35443929002, 35443929003

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-----|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 01/30/19 23:31 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 01/30/19 23:31 | |

LABORATORY CONTROL SAMPLE: 2763427

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 48.5 | 97 | 90-110 | |
| Sulfate | mg/L | 50 | 49.9 | 100 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2763668 2763669

| Parameter | Units | 12121059001 Result | MS | | MSD | | MS | | MSD | | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-----------|------------|-------|-------|-----|--------|---|--------------|-----|---------|------|
| | | | Spike Conc. | MS Result | MSD Result | % Rec | % Rec | | | | | | | |
| Chloride | mg/L | ND | 50 | 50 | 51.5 | 52.8 | 96 | 98 | 90-110 | 2 | 20 | | | |
| Sulfate | mg/L | 7.8 | 50 | 50 | 58.4 | 59.7 | 101 | 104 | 90-110 | 2 | 20 | | | |

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QUALITY CONTROL DATA

Project: D19A012
Pace Project No.: 35443929

QC Batch: 511821 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35443929004, 35443929005, 35443929006, 35443929007, 35443929008, 35443929009, 35443929010, 35443929011, 35443929012, 35443929013

METHOD BLANK: 2763428 Matrix: Water
Associated Lab Samples: 35443929004, 35443929005, 35443929006, 35443929007, 35443929008, 35443929009, 35443929010, 35443929011, 35443929012, 35443929013

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 01/30/19 21:52 | |
| Fluoride | mg/L | 0.034 U | 0.050 | 0.034 | 01/30/19 21:52 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 01/30/19 21:52 | |

LABORATORY CONTROL SAMPLE: 2763429

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 49.9 | 100 | 90-110 | |
| Fluoride | mg/L | 5 | 4.8 | 97 | 90-110 | |
| Sulfate | mg/L | 50 | 49.0 | 98 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2763674 2763675

| Parameter | Units | 35443929010 | | 2763675 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
|-----------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|--------|---------|------|----------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | | |
| Chloride | mg/L | 118 | 50 | 50 | 181 | 182 | 116 | 118 | 90-110 | 1 | 20 | J(M1), L |
| Fluoride | mg/L | 0.14 | 5 | 5 | 5.0 | 5.1 | 97 | 99 | 90-110 | 2 | 20 | |
| Sulfate | mg/L | 88.3 | 50 | 50 | 149 | 150 | 121 | 123 | 90-110 | 0 | 20 | J(M1), L |

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QUALITY CONTROL DATA

Project: D19A012
Pace Project No.: 35443929

QC Batch: 512433 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35443929009, 35443929010

METHOD BLANK: 2766770 Matrix: Water
Associated Lab Samples: 35443929009, 35443929010

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-----|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 02/01/19 10:39 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 02/01/19 10:39 | |

LABORATORY CONTROL SAMPLE: 2766771

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 50.1 | 100 | 90-110 | |
| Sulfate | mg/L | 50 | 49.2 | 98 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2766899 2766900

| Parameter | Units | 35440865002 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|-----------|------------|----------|-----------|--------------|-----|---------|-------|
| | | | Spike Conc. | Spike Conc. | MS Result | MSD Result | | | | | | |
| Chloride | mg/L | 39.0 | 50 | 50 | 95.3 | 95.5 | 113 | 113 | 90-110 | 0 | 20 | J(M1) |
| Sulfate | mg/L | 7.6 | 50 | 50 | 58.3 | 58.7 | 101 | 102 | 90-110 | 1 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2766901 2766902

| Parameter | Units | 35445089004 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | | Spike Conc. | Spike Conc. | MS Result | MSD Result | | | | | | |
| Chloride | mg/L | 6.5 | 50 | 50 | 58.2 | 58.5 | 103 | 104 | 90-110 | 0 | 20 | |
| Sulfate | mg/L | 5.8 | 50 | 50 | 55.9 | 56.5 | 100 | 101 | 90-110 | 1 | 20 | |

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QUALITY CONTROL DATA

Project: D19A012
Pace Project No.: 35443929

QC Batch: 513587 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35443929014

METHOD BLANK: 2772760 Matrix: Water
Associated Lab Samples: 35443929014

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 02/06/19 22:32 | |
| Fluoride | mg/L | 0.034 U | 0.050 | 0.034 | 02/06/19 22:32 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 02/06/19 22:32 | |

LABORATORY CONTROL SAMPLE: 2772761

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 48.4 | 97 | 90-110 | |
| Fluoride | mg/L | 5 | 4.9 | 99 | 90-110 | |
| Sulfate | mg/L | 50 | 49.0 | 98 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2772997 2772998

| Parameter | Units | 35445963001 Result | MS Spike Conc. | MSD Spike Conc. | 2772997 | | 2772998 | | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|----------|
| | | | | | MS Result | MSD Result | MS % Rec | MSD % Rec | | | | |
| Chloride | mg/L | 44.7 | 50 | 50 | 101 | 102 | 113 | 114 | 90-110 | 0 | 20 | J(M1), L |
| Fluoride | mg/L | 0.11 | 5 | 5 | 5.1 | 5.1 | 99 | 99 | 90-110 | 0 | 20 | |
| Sulfate | mg/L | 9.6 | 50 | 50 | 60.5 | 60.6 | 102 | 102 | 90-110 | 0 | 20 | |

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QUALITY CONTROL DATA

Project: D19A012
Pace Project No.: 35443929

QC Batch: 510895 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 35443929001, 35443929002, 35443929003, 35443929004, 35443929005, 35443929006, 35443929007, 35443929008, 35443929009

METHOD BLANK: 2758934 Matrix: Water
Associated Lab Samples: 35443929001, 35443929002, 35443929003, 35443929004, 35443929005, 35443929006, 35443929007, 35443929008, 35443929009

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|-------|----------------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 0.025 U | 0.050 | 0.025 | 01/25/19 18:07 | |

LABORATORY CONTROL SAMPLE: 2758935

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 2 | 2.1 | 104 | 90-110 | |

MATRIX SPIKE SAMPLE: 2758937

| Parameter | Units | 35443575001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|--------------------|-------------|-----------|----------|--------------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 0.025 U | 2 | 2.0 | 101 | 90-110 | |

MATRIX SPIKE SAMPLE: 2758939

| Parameter | Units | 35444018001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|--------------------|-------------|-----------|----------|--------------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 1.1 | 2 | 3.0 | 98 | 90-110 | |

SAMPLE DUPLICATE: 2758936

| Parameter | Units | 35443575001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 0.025 U | 0.025 U | | 20 | |

SAMPLE DUPLICATE: 2758938

| Parameter | Units | 35444018001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 1.1 | 1.0 | 1 | 20 | |

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QUALITY CONTROL DATA

Project: D19A012
Pace Project No.: 35443929

QC Batch: 510980 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 35443929010, 35443929011, 35443929012, 35443929013, 35443929014

METHOD BLANK: 2759573 Matrix: Water
Associated Lab Samples: 35443929010, 35443929011, 35443929012, 35443929013, 35443929014

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|-------|----------------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 0.025 U | 0.050 | 0.025 | 01/26/19 10:24 | |

LABORATORY CONTROL SAMPLE: 2759574

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 2 | 2.1 | 106 | 90-110 | |

MATRIX SPIKE SAMPLE: 2759576

| Parameter | Units | 35443929010 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|--------------------|-------------|-----------|----------|--------------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 0.088 | 2 | 2.0 | 97 | 90-110 | |

MATRIX SPIKE SAMPLE: 2759578

| Parameter | Units | 35444127001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|--------------------|-------------|-----------|----------|--------------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 0.69 | 2 | 2.7 | 101 | 90-110 | |

SAMPLE DUPLICATE: 2759575

| Parameter | Units | 35443929010 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 0.088 | 0.091 | 3 | 20 | |

SAMPLE DUPLICATE: 2759577

| Parameter | Units | 35444127001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Nitrogen, NO2 plus NO3 | mg/L | 0.69 | 0.69 | 0 | 20 | |

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QUALITY CONTROL DATA

Project: D19A012
Pace Project No.: 35443929

QC Batch: 511397 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 35443929001, 35443929002, 35443929003, 35443929004, 35443929005, 35443929006, 35443929007

METHOD BLANK: 2761334 Matrix: Water
Associated Lab Samples: 35443929001, 35443929002, 35443929003, 35443929004, 35443929005, 35443929006, 35443929007

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|----------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Organic Carbon | mg/L | 0.50 U | 1.0 | 0.50 | 01/29/19 23:03 | |

LABORATORY CONTROL SAMPLE: 2761335

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Organic Carbon | mg/L | 20 | 19.9 | 100 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2761336 2761337

| Parameter | Units | 35444486002 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 | 24.5 | 20 | 20 | 44.4 | 44.2 | 100 | 99 | 80-120 | 0 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2761338 2761339

| Parameter | Units | 35443774001 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 | 3.0 | 20 | 20 | 23.4 | 23.3 | 102 | 102 | 80-120 | 1 | 20 | |

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QUALITY CONTROL DATA

Project: D19A012
Pace Project No.: 35443929

QC Batch: 511715 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 35443929008, 35443929009, 35443929010, 35443929011, 35443929012, 35443929013, 35443929014

METHOD BLANK: 2763086 Matrix: Water
Associated Lab Samples: 35443929008, 35443929009, 35443929010, 35443929011, 35443929012, 35443929013, 35443929014

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|----------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Organic Carbon | mg/L | 0.50 U | 1.0 | 0.50 | 01/31/19 05:48 | |

LABORATORY CONTROL SAMPLE: 2763087

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Organic Carbon | mg/L | 20 | 20.0 | 100 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2763088 2763089

| Parameter | Units | 35444597001 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 | 19.4 | 20 | 20 | 39.2 | 38.5 | 99 | 96 | 80-120 | 2 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2763090 2763091

| Parameter | Units | 35443929009 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 | 30.2 | 20 | 20 | 49.8 | 51.1 | 98 | 105 | 80-120 | 3 | 20 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

| Sample: D19A012-01 | | Lab ID: 35443929001 | Collected: 01/15/19 11:48 | Received: 01/23/19 12:00 | Matrix: Water | | |
|---------------------------|-----------|----------------------------------------|---------------------------|--------------------------|----------------|------------|------|
| PWS: | | Site ID: | Sample Type: | | | | |
| Parameters | Method | Act ± Unc (MDC) Carr Trac | | Units | Analyzed | CAS No. | Qual |
| Gross Alpha | EPA 900.0 | 6.02 ± 2.49 (2.94) C:NA T:NA | | pCi/L | 01/30/19 08:20 | 12587-46-1 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

| Sample: D19A012-02 | | Lab ID: 35443929002 | Collected: 01/15/19 15:23 | Received: 01/23/19 12:00 | Matrix: Water | | |
|---------------------------|-----------|-----------------------------|---------------------------|--------------------------|----------------|------------|------|
| PWS: | | Site ID: | Sample Type: | | | | |
| Parameters | Method | Act ± Unc (MDC) | Carr Trac | Units | Analyzed | CAS No. | Qual |
| Gross Alpha | EPA 900.0 | 2.16U ± 0.648 (2.16) | | pCi/L | 01/30/19 08:20 | 12587-46-1 | |
| | | C:NA T:NA | | | | | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

| Sample: D19A012-03 | | Lab ID: 35443929003 | Collected: 01/17/19 17:20 | Received: 01/23/19 12:00 | Matrix: Water | |
|---------------------------|-----------|-----------------------------------------|---------------------------|--------------------------|---------------|------|
| PWS: | | Site ID: | Sample Type: | | | |
| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
| Gross Alpha | EPA 900.0 | 2.98U ± 1.24 (2.98) C:NA T:NA | pCi/L | 01/30/19 08:21 | 12587-46-1 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

| Sample: D19A012-04 | | Lab ID: 35443929004 | Collected: 01/16/19 11:20 | Received: 01/23/19 12:00 | Matrix: Water | |
|---------------------------|-----------|-----------------------------------------|---------------------------|--------------------------|---------------|------|
| PWS: | | Site ID: | Sample Type: | | | |
| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
| Gross Alpha | EPA 900.0 | 2.96U ± 1.13 (2.96) C:NA T:NA | pCi/L | 01/30/19 08:23 | 12587-46-1 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-05 **Lab ID: 35443929005** Collected: 01/14/19 10:16 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|-------------|-----------|----------------------------------------|-------|----------------|------------|------|
| Gross Alpha | EPA 900.0 | 6.00 ± 2.80 (2.96) C:NA T:NA | pCi/L | 01/30/19 08:24 | 12587-46-1 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

| Sample: D19A012-06 | | Lab ID: 35443929006 | Collected: 01/16/19 09:05 | Received: 01/23/19 12:00 | Matrix: Water | | |
|---------------------------|-----------|-----------------------------|---------------------------|--------------------------|----------------|------------|------|
| PWS: | | Site ID: | Sample Type: | | | | |
| Parameters | Method | Act ± Unc (MDC) | Carr Trac | Units | Analyzed | CAS No. | Qual |
| Gross Alpha | EPA 900.0 | 2.47U ± 0.807 (2.47) | | pCi/L | 01/30/19 08:20 | 12587-46-1 | |
| | | C:NA T:NA | | | | | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-07 **Lab ID: 35443929007** Collected: 01/18/19 10:16 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|-------------|-----------|----------------------------------------|-------|----------------|------------|------|
| Gross Alpha | EPA 900.0 | 6.69 ± 2.54 (2.92) C:NA T:NA | pCi/L | 01/30/19 08:21 | 12587-46-1 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-08 **Lab ID: 35443929008** Collected: 01/18/19 16:52 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|-------------|-----------|----------------------------------------|-------|----------------|------------|------|
| Gross Alpha | EPA 900.0 | 4.51 ± 1.78 (1.69) C:NA T:NA | pCi/L | 01/30/19 08:22 | 12587-46-1 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-09 **Lab ID: 35443929009** Collected: 01/18/19 15:54 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|-------------|-----------|-----------------------------------------------|-------|----------------|------------|------|
| Gross Alpha | EPA 900.0 | 11.8 ± 3.53 (2.88) C:NA T:NA | pCi/L | 01/30/19 08:22 | 12587-46-1 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

| Sample: D19A012-10 | | Lab ID: 35443929010 | Collected: 01/17/19 14:01 | Received: 01/23/19 12:00 | Matrix: Water | | |
|---------------------------|-----------|----------------------------------------|---------------------------|--------------------------|----------------|------------|------|
| PWS: | | Site ID: | Sample Type: | | | | |
| Parameters | Method | Act ± Unc (MDC) Carr Trac | | Units | Analyzed | CAS No. | Qual |
| Gross Alpha | EPA 900.0 | 12.8 ± 3.56 (2.91) C:NA T:NA | | pCi/L | 01/30/19 08:22 | 12587-46-1 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

| Sample: D19A012-11 | | Lab ID: 35443929011 | Collected: 01/17/19 13:57 | Received: 01/23/19 12:00 | Matrix: Water | | |
|---------------------------|-----------|----------------------------|---------------------------|--------------------------|----------------|------------|------|
| PWS: | | Site ID: | Sample Type: | | | | |
| Parameters | Method | Act ± Unc (MDC) | Carr Trac | Units | Analyzed | CAS No. | Qual |
| Gross Alpha | EPA 900.0 | 1.92U ± 1.21 (1.92) | | pCi/L | 01/30/19 08:21 | 12587-46-1 | |
| | | C:NA T:NA | | | | | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

| Sample: D19A012-12 | | Lab ID: 35443929012 | Collected: 01/17/19 12:32 | Received: 01/23/19 12:00 | Matrix: Water | | |
|---------------------------|-----------|----------------------------|---------------------------|--------------------------|----------------|------------|------|
| PWS: | | Site ID: | Sample Type: | | | | |
| Parameters | Method | Act ± Unc (MDC) | Carr Trac | Units | Analyzed | CAS No. | Qual |
| Gross Alpha | EPA 900.0 | 8.41 ± 2.98 | (2.96) | pCi/L | 01/30/19 08:20 | 12587-46-1 | |
| | | C:NA T:NA | | | | | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-13 **Lab ID: 35443929013** Collected: 01/19/19 09:04 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|-------------|-----------|-----------------------------------------|-------|----------------|------------|------|
| Gross Alpha | EPA 900.0 | 2.95U ± 1.38 (2.95) C:NA T:NA | pCi/L | 01/30/19 08:22 | 12587-46-1 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A012

Pace Project No.: 35443929

Sample: D19A012-14 **Lab ID: 35443929014** Collected: 01/17/19 12:40 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|-------------|-----------|-------------------------------------------------|-------|----------------|------------|------|
| Gross Alpha | EPA 900.0 | 1.49U ± 0.499 (1.49) C:NA T:NA | pCi/L | 01/30/19 08:21 | 12587-46-1 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: D19A012
Pace Project No.: 35443929

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------|
| QC Batch: | 328217 | Analysis Method: | EPA 900.0 |
| QC Batch Method: | EPA 900.0 | Analysis Description: | 900.0 Gross Alpha/Beta |
| Associated Lab Samples: | 35443929001, 35443929002, 35443929003, 35443929004, 35443929005, 35443929006, 35443929007, 35443929008, 35443929009, 35443929010, 35443929011, 35443929012, 35443929013, 35443929014 | | |

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|
| METHOD BLANK: | 1597861 | Matrix: | Water |
| Associated Lab Samples: | 35443929001, 35443929002, 35443929003, 35443929004, 35443929005, 35443929006, 35443929007, 35443929008, 35443929009, 35443929010, 35443929011, 35443929012, 35443929013, 35443929014 | | |

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|-------------|--------------------------------|-------|----------------|------------|
| Gross Alpha | 0.124 ± 0.858 (2.17) C:NA T:NA | pCi/L | 01/30/19 08:19 | |

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: D19A012
Pace Project No.: 35443929

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.
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.

LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach
PASI-PA Pace Analytical Services - Greensburg

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: D19A012
Pace Project No.: 35443929

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|------------|-----------------|----------|-------------------|------------------|
| 35443929001 | D19A012-01 | EPA 900.0 | 328217 | | |
| 35443929002 | D19A012-02 | EPA 900.0 | 328217 | | |
| 35443929003 | D19A012-03 | EPA 900.0 | 328217 | | |
| 35443929004 | D19A012-04 | EPA 900.0 | 328217 | | |
| 35443929005 | D19A012-05 | EPA 900.0 | 328217 | | |
| 35443929006 | D19A012-06 | EPA 900.0 | 328217 | | |
| 35443929007 | D19A012-07 | EPA 900.0 | 328217 | | |
| 35443929008 | D19A012-08 | EPA 900.0 | 328217 | | |
| 35443929009 | D19A012-09 | EPA 900.0 | 328217 | | |
| 35443929010 | D19A012-10 | EPA 900.0 | 328217 | | |
| 35443929011 | D19A012-11 | EPA 900.0 | 328217 | | |
| 35443929012 | D19A012-12 | EPA 900.0 | 328217 | | |
| 35443929013 | D19A012-13 | EPA 900.0 | 328217 | | |
| 35443929014 | D19A012-14 | EPA 900.0 | 328217 | | |
| 35443929001 | D19A012-01 | EPA 300.0 | 511820 | | |
| 35443929002 | D19A012-02 | EPA 300.0 | 511820 | | |
| 35443929003 | D19A012-03 | EPA 300.0 | 511820 | | |
| 35443929004 | D19A012-04 | EPA 300.0 | 511821 | | |
| 35443929005 | D19A012-05 | EPA 300.0 | 511821 | | |
| 35443929006 | D19A012-06 | EPA 300.0 | 511821 | | |
| 35443929007 | D19A012-07 | EPA 300.0 | 511821 | | |
| 35443929008 | D19A012-08 | EPA 300.0 | 511821 | | |
| 35443929009 | D19A012-09 | EPA 300.0 | 511821 | | |
| 35443929009 | D19A012-09 | EPA 300.0 | 512433 | | |
| 35443929010 | D19A012-10 | EPA 300.0 | 511821 | | |
| 35443929010 | D19A012-10 | EPA 300.0 | 512433 | | |
| 35443929011 | D19A012-11 | EPA 300.0 | 511821 | | |
| 35443929012 | D19A012-12 | EPA 300.0 | 511821 | | |
| 35443929013 | D19A012-13 | EPA 300.0 | 511821 | | |
| 35443929014 | D19A012-14 | EPA 300.0 | 513587 | | |
| 35443929001 | D19A012-01 | EPA 353.2 | 510895 | | |
| 35443929002 | D19A012-02 | EPA 353.2 | 510895 | | |
| 35443929003 | D19A012-03 | EPA 353.2 | 510895 | | |
| 35443929004 | D19A012-04 | EPA 353.2 | 510895 | | |
| 35443929005 | D19A012-05 | EPA 353.2 | 510895 | | |
| 35443929006 | D19A012-06 | EPA 353.2 | 510895 | | |
| 35443929007 | D19A012-07 | EPA 353.2 | 510895 | | |
| 35443929008 | D19A012-08 | EPA 353.2 | 510895 | | |
| 35443929009 | D19A012-09 | EPA 353.2 | 510895 | | |
| 35443929010 | D19A012-10 | EPA 353.2 | 510980 | | |
| 35443929011 | D19A012-11 | EPA 353.2 | 510980 | | |
| 35443929012 | D19A012-12 | EPA 353.2 | 510980 | | |
| 35443929013 | D19A012-13 | EPA 353.2 | 510980 | | |
| 35443929014 | D19A012-14 | EPA 353.2 | 510980 | | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D19A012

Pace Project No.: 35443929

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|------------|-----------------|----------|-------------------|------------------|
| 35443929001 | D19A012-01 | SM 5310B | 511397 | | |
| 35443929002 | D19A012-02 | SM 5310B | 511397 | | |
| 35443929003 | D19A012-03 | SM 5310B | 511397 | | |
| 35443929004 | D19A012-04 | SM 5310B | 511397 | | |
| 35443929005 | D19A012-05 | SM 5310B | 511397 | | |
| 35443929006 | D19A012-06 | SM 5310B | 511397 | | |
| 35443929007 | D19A012-07 | SM 5310B | 511397 | | |
| 35443929008 | D19A012-08 | SM 5310B | 511715 | | |
| 35443929009 | D19A012-09 | SM 5310B | 511715 | | |
| 35443929010 | D19A012-10 | SM 5310B | 511715 | | |
| 35443929011 | D19A012-11 | SM 5310B | 511715 | | |
| 35443929012 | D19A012-12 | SM 5310B | 511715 | | |
| 35443929013 | D19A012-13 | SM 5310B | 511715 | | |
| 35443929014 | D19A012-14 | SM 5310B | 511715 | | |

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

WO# : 35443929



35443929

SENDING LABORATORY:

Gainesville Regional Utilities
Deerhaven Generating Station
10001 NW 13th Street
Gainesville, FL 32653
Phone: 352-334-3434
Fax: 352-334-3149
Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Pace Analytical
8 East Tower Circle
Ormond Beach, FL 32174
Phone : (386) 672-5668
Fax: (386) 673-4001

| Analysis | Expires | Laboratory ID | Comments |
|----------------------------------------------|-----------------|---------------|---------------------------------|
| Sample Name: MWD-1-6 (R1T6) | | | |
| Sample ID: D19A012-01 | Water | | Sampled: 15-Jan-19 11:48 |
| D_Anions - Sulfates | 12-Feb-19 11:48 | | |
| D_Gross Alpha | 10-Jul-19 11:48 | | Cond = 533 |
| D_NO3/NO2 | 12-Feb-19 11:48 | | |
| D_TOC | 12-Feb-19 11:48 | | |
| D_Anions - Chlorides | 12-Feb-19 11:48 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, Chill @<6*C - 250mL (B) | | | |
| D_HDPE, H2SO4 Chill @<6*C - pH<2 - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 1000mL (D) | | | |
| Sample Name: MWB-2-1 (R2T1) | | | |
| Sample ID: D19A012-02 | Water | | Sampled: 15-Jan-19 15:23 |
| D_Gross Alpha | 10-Jul-19 15:23 | | Cond = 52.9 |
| D_NO3/NO2 | 12-Feb-19 15:23 | | |
| D_Anions - Sulfates | 12-Feb-19 15:23 | | |
| D_Anions - Chlorides | 12-Feb-19 15:23 | | |
| D_TOC | 12-Feb-19 15:23 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, Chill @<6*C - 250mL (B) | | | |
| D_HDPE, H2SO4 Chill @<6*C - pH<2 - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 1000mL (D) | | | |

via Fedex

Released By: *Shelley Phillips* Date: *1-22-19* Received By: *AS/Mue* Date: *1/23/19 1200*
 Released By: _____ Date: _____ Received By: _____ Date: *20-9T-238*



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

Sample Name: MWI-6-4 (R6T4B)
Sample ID: D19A012-06 **Water** **Sampled: 16-Jan-19 09:05**

| | | | |
|----------------------|-----------------|--|------------|
| D_Gross Alpha | 11-Jul-19 09:05 | | Cond = 351 |
| D_NO3/NO2 | 13-Feb-19 09:05 | | |
| D_TOC | 13-Feb-19 09:05 | | |
| D_Anions - Sulfates | 13-Feb-19 09:05 | | |
| D_Anions - Chlorides | 13-Feb-19 09:05 | | |
| D_Anions - Fluoride | 13-Feb-19 09:05 | | |

Containers Supplied:
D_HDPE, Chill @<6*C - 250mL (B)
D_HDPE, H2SO4 Chill @<6*C - pH<2 - 250mL (C)
D_HDPE, HNO3 pH<2 - 1000mL (D)

Sample Name: MWI-6-8 (R6T8B)
Sample ID: D19A012-07 **Water** **Sampled: 18-Jan-19 10:16**

| | | | |
|----------------------|-----------------|--|------------|
| D_Gross Alpha | 13-Jul-19 10:16 | | Cond = 393 |
| D_Anions - Chlorides | 15-Feb-19 10:16 | | |
| D_Anions - Fluoride | 15-Feb-19 10:16 | | |
| D_Anions - Sulfates | 15-Feb-19 10:16 | | |
| D_TOC | 15-Feb-19 10:16 | | |
| D_NO3/NO2 | 15-Feb-19 10:16 | | |

Containers Supplied:
D_HDPE, Chill @<6*C - 250mL (B)
D_HDPE, H2SO4 Chill @<6*C - pH<2 - 250mL (C)
D_HDPE, HNO3 pH<2 - 1000mL (D)

Sample Name: MWD-6-12 (R6T12)
Sample ID: D19A012-08 **Water** **Sampled: 18-Jan-19 16:52**

| | | | |
|----------------------|-----------------|--|------------|
| D_Anions - Sulfates | 15-Feb-19 16:52 | | |
| D_Gross Alpha | 13-Jul-19 16:52 | | Cond = 179 |
| D_TOC | 15-Feb-19 16:52 | | |
| D_NO3/NO2 | 15-Feb-19 16:52 | | |
| D_Anions - Chlorides | 15-Feb-19 16:52 | | |

Containers Supplied:
D_HDPE, Chill @<6*C - 250mL (B)
D_HDPE, H2SO4 Chill @<6*C - pH<2 - 250mL (C)
D_HDPE, HNO3 pH<2 - 1000mL (D)

via FedEx

| | | | |
|------------------------|----------------|----------------|---------------------|
| <i>Shelly Phillips</i> | <i>1-22-19</i> | <i>AS/PALE</i> | <i>1/25/19 1720</i> |
| Released By | Date | Received By | Date |

2019 T-338

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|----------------------------------------------|-----------------|---------------------------------|-------------|
| Sample Name: MWC-11-4 (R11T4B) | | | |
| Sample ID: D19A012-12 | Water | Sampled: 18-Jan-19 12:32 | |
| D_Anions - Fluoride | 15-Feb-19 12:32 | | |
| D_TOC | 15-Feb-19 12:32 | | |
| D_Anions - Sulfates | 15-Feb-19 12:32 | | |
| D_Anions - Chlorides | 15-Feb-19 12:32 | | |
| D_Gross Alpha | 13-Jul-19 12:32 | | Cond = 287 |
| D_NO3/NO2 | 15-Feb-19 12:32 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, Chill @<6°C - 250mL (B) | | | |
| D_HDPE, H2SO4 Chill @<6°C - pH<2 - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 1000mL (D) | | | |
| Sample Name: MWC-DEEP (DEEP-1) | | | |
| Sample ID: D19A012-13 | Water | Sampled: 19-Jan-19 09:04 | |
| D_Anions - Chlorides | 16-Feb-19 09:04 | | |
| D_Anions - Sulfates | 16-Feb-19 09:04 | | |
| D_Gross Alpha | 14-Jul-19 09:04 | | Cond = 475 |
| D_TOC | 16-Feb-19 09:04 | | |
| D_NO3/NO2 | 16-Feb-19 09:04 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, Chill @<6°C - 250mL (B) | | | |
| D_HDPE, H2SO4 Chill @<6°C - pH<2 - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 1000mL (D) | | | |
| Sample Name: EBLANK | | | |
| Sample ID: D19A012-14 | Water | Sampled: 17-Jan-19 12:40 | |
| D_Anions - Chlorides | 14-Feb-19 12:40 | | |
| D_NO3/NO2 | 14-Feb-19 12:40 | | |
| D_Gross Alpha | 12-Jul-19 12:40 | | Cond = 0.80 |
| D_Anions - Fluoride | 14-Feb-19 12:40 | | |
| D_TOC | 14-Feb-19 12:40 | | |
| D_Anions - Sulfates | 14-Feb-19 12:40 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, Chill @<6°C - 250mL (B) | | | |
| D_HDPE, H2SO4 Chill @<6°C - pH<2 - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 1000mL (D) | | | |

via FedEx

| | | | |
|------------------------|----------------|------------------|--------------------|
| <i>Shelby Phillips</i> | <i>1-22-19</i> | <i>AS / mace</i> | <i>1/23/19 Neo</i> |
| Released By | Date | Received By | Date |
| | | | <i>2019-03-28</i> |
| Released By | Date | Received By | Date |



Kanapaha Laboratory

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

Florida Department of Health Certification E52099

February 14, 2019

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

RE: Environmental

Enclosed are the results of analyses for samples received by the laboratory on 1/22/2019. 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



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

ANALYTICAL REPORT FOR SAMPLES

| Laboratory ID | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|--------------------------------|-------------|------------------|------------------|
| K19A067-01 | D19A012-01 (MWD-1-6 (R1T6)) | Groundwater | 01/15/2019 11:48 | 01/22/2019 14:22 |
| K19A067-02 | D19A012-02 (MWB-2-1 (R2T1)) | Groundwater | 01/15/2019 15:23 | 01/22/2019 14:22 |
| K19A067-03 | D19A012-03 (MWI-3-7 (R3T7)) | Groundwater | 01/17/2019 17:20 | 01/22/2019 14:22 |
| K19A067-04 | D19A012-04 (MWI-4-5 (R4T5B)) | Groundwater | 01/16/2019 11:20 | 01/22/2019 14:22 |
| K19A067-05 | D19A012-05 (MWD-6-1 (R6T1B)) | Groundwater | 01/14/2019 10:16 | 01/22/2019 14:22 |
| K19A067-06 | D19A012-06 (MWI-6-4 (R6T4B)) | Groundwater | 01/16/2019 09:05 | 01/22/2019 14:22 |
| K19A067-07 | D19A012-07 (MWI-6-8 (R6T8B)) | Groundwater | 01/18/2019 10:16 | 01/22/2019 14:22 |
| K19A067-08 | D19A012-08 (MWD-6-12 (R6T12)) | Groundwater | 01/18/2019 16:52 | 01/22/2019 14:22 |
| K19A067-09 | D19A012-09 (MWC-8-10 (R8T10)) | Groundwater | 01/18/2019 15:54 | 01/22/2019 14:22 |
| K19A067-10 | D19A012-10 (MWI-9-5 (R9T5B)) | Groundwater | 01/17/2019 14:01 | 01/22/2019 14:22 |
| K19A067-11 | D19A012-11 (MWC-10-8 (R10T8)) | Groundwater | 01/18/2019 13:57 | 01/22/2019 14:22 |
| K19A067-12 | D19A012-12 (MWC-11-4 (R11T4B)) | Groundwater | 01/18/2019 12:32 | 01/22/2019 14:22 |
| K19A067-13 | D19A012-13 (MWC-DEEP (DEEP-1)) | Groundwater | 01/19/2019 09:04 | 01/22/2019 14:22 |
| K19A067-14 | D19A012-14 (EBLANK) | Groundwater | 01/17/2019 12:40 | 01/22/2019 14:22 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-01 (MWD-1-6 (R1T6))
K19A067-01 (Groundwater, Grab)
Collected: 01/15/2019 11:48 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 15.0 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 12.6 | | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 15.9 | | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 56.7 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 3.1 | I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 | U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 4680 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 33.2 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 148 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 2.4 | I | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 0.51 | | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 | U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 12.8 | | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 50.0 | | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 1.5 | I | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-02 (MWB-2-1 (R2T1))
K19A067-02 (Groundwater, Grab)
Collected: 01/15/2019 3:23 pm

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|---------|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 197 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.5 U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 1.8 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 4.96 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 2.9 I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 229 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 0.62 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 7.8 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 2.6 I | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 0.06 I | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 2.81 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 19.4 | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 5.3 I | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-03 (MWI-3-7 (R3T7))
K19A067-03 (Groundwater, Grab)
Collected: 01/17/2019 5:20 pm

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|---------|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 34.6 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.5 U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 2.3 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 51.4 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 342 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 14.5 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 12.1 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 19.6 | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 3.8 I | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 5.42 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 46.8 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 457 | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 17.4 | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 5.0 I | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-04 (MWI-4-5 (R4T5B))
K19A067-04 (Groundwater, Grab)
Collected: 01/16/2019 11:20 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|----|------------|------------|-----------|
| Aluminum | 184 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 6.8 | I | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 13.8 | | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 107 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 2.7 | I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 | U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 29900 | | 10.0 | 40.0 | ug/L | 10 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 38.6 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 162 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 0.50 | | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 | U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 12.6 | | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 98.4 | | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 2.8 | I | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-05 (MWD-6-1 (R6T1B))
K19A067-05 (Groundwater, Grab)
Collected: 01/14/2019 10:16 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 530 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 60.1 | | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 25.7 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.6 | I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 | U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 1350 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 25.6 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 10.1 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 2.2 | I | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 9.42 | | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 | U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 146 | | 0.10 | 0.40 | mg/L | 2 | 01/29/2019 | 02/14/2019 | EPA 200.7 |
| Strontium | 164 | | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 1.4 | I | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-06 (MWI-6-4 (R6T4B))
K19A067-06 (Groundwater, Grab)
Collected: 01/16/2019 9:05 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 55.0 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 3.2 | I | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 16.1 | | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 57.2 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 | U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 193 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 3.99 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 21.1 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 1.31 | | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 | U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 9.20 | | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 107 | | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 1.6 | I | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-07 (MWI-6-8 (R6T8B))
K19A067-07 (Groundwater, Grab)
Collected: 01/18/2019 10:16 am

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|---------|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 131 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.5 U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 12.5 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 41.0 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.2 I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 148 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 21.5 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 12.0 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 1.2 U | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 0.58 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 6.96 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 61.7 | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 3.0 I | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-08 (MWD-6-12 (R6T12))
K19A067-08 (Groundwater, Grab)
Collected: 01/18/2019 4:52 pm

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|--------------|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 295 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.6 I | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 6.8 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 U, J(1) | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 14.7 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 2.0 I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 44.2 | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 1140 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 2.04 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 6.7 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 2.3 I | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 0.07 I | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 8.76 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 21.5 | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 10.2 I | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 2.8 I | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-09 (MWC-8-10 (R8T10))
K19A067-09 (Groundwater, Grab)
Collected: 01/18/2019 3:54 pm

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|---------|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 725 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 4.2 I | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 5.2 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.16 I | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 20.3 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 6.5 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 2.5 I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 5770 | 2.0 | 8.0 | ug/L | 2 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 6.96 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 7.3 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 2.1 I | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 0.07 I | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 62.4 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 13.7 | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 31.3 | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 6.2 | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-10 (MWI-9-5 (R9T5B))
K19A067-10 (Groundwater, Grab)
Collected: 01/17/2019 2:01 pm

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 200 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 52.4 | | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 43.2 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.2 | I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.5 | I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 | U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 3940 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 28.0 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 366 | | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 5.06 | | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 | U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 30.8 | | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 336 | | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 6.7 | | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 02/11/2019 | 02/11/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-11 (MWC-10-8 (R10T8))
K19A067-11 (Groundwater, Grab)
Collected: 01/18/2019 1:57 pm

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|---------|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 37.7 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.5 U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 2.7 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 23.0 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 133 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 2.71 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 8.4 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 1.2 U | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 0.16 I | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 I | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 2.13 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 16.6 | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 2.8 I | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 U | 0.100 | 0.400 | ug/L | 1 | 02/12/2019 | 02/12/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-12 (MWC-11-4 (R11T4B))
K19A067-12 (Groundwater, Grab)
Collected: 01/18/2019 12:32 pm

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|---------|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 114 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.5 U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 5.2 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 7.15 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 2.2 I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 713 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 3.82 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 13.3 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 1.2 U | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 1.26 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 39.9 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 5.9 | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 1.4 U | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 U | 0.100 | 0.400 | ug/L | 1 | 02/12/2019 | 02/12/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-13 (MWC-DEEP (DEEP-1))
K19A067-13 (Groundwater, Grab)
Collected: 01/19/2019 9:04 am

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|-----------------------------------------|-------------|-------|-------|-------|-----|------------|------------|-----------|
| Laboratory: Kanapaha Laboratory | | | | | | | | |
| Metals by EPA 200 Series Methods | | | | | | | | |
| Aluminum | 2.1 I, V | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.5 U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 12.9 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 61.2 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 37.6 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 19.8 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 10.2 | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 1.2 U | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 0.83 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 8.87 | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 1060 | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 1.4 U | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 U | 0.100 | 0.400 | ug/L | 1 | 02/12/2019 | 02/12/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

D19A012-14 (EBLANK)
K19A067-14 (Groundwater, Grab)
Collected: 01/17/2019 12:40 pm

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|-----------------------------------------|-------------|-------|-------|-------|-----|------------|------------|-----------|
| Laboratory: Kanapaha Laboratory | | | | | | | | |
| Metals by EPA 200 Series Methods | | | | | | | | |
| Aluminum | 2.5 I, V | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Arsenic | 2.5 U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 0.2 U | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 0.05 V | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Copper | 1.6 U | 1.6 | 6.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Iron | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Magnesium | 0.01 U | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Manganese | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Nickel | 1.2 U | 1.2 | 4.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Potassium | 0.05 U | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Silver | 0.6 U | 0.6 | 2.4 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Sodium | 0.05 U | 0.05 | 0.20 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Strontium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Vanadium | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Zinc | 1.4 U | 1.4 | 5.6 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Mercury | 0.100 U | 0.100 | 0.400 | ug/L | 1 | 02/12/2019 | 02/12/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

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 B19A181 - EPA 200.7

Blank (B19A181-BLK1)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|----------|--|------|------|------|--|--|--|--|--|------|
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | NR |
| Vanadium | 3.0U | | 3.0 | 12.0 | ug/L | | | | | | NR |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | | | | | 30.8 |
| Molybdenum | 3.0U | | 3.0 | 12.0 | ug/L | | | | | | NR |
| Iron | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | 37.0 |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | | | | | NR |
| Strontium | 0.3U | | 0.3 | 1.2 | ug/L | | | | | | 163 |
| Manganese | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | NR |
| Magnesium | 0.01U | | 0.01 | 0.04 | mg/L | | | | | | 0.00 |
| Sodium | 0.05U | | 0.05 | 0.20 | mg/L | | | | | | 47.1 |
| Potassium | 0.05U | | 0.05 | 0.20 | mg/L | | | | | | NR |
| Zinc | 1.4U | | 1.4 | 5.6 | ug/L | | | | | | NR |
| Copper | 1.6U | | 1.6 | 6.4 | ug/L | | | | | | NR |
| Chromium | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | 50.0 |
| Calcium | 0.01U | | 0.01 | 0.04 | mg/L | | | | | | 37.2 |
| Cadmium | 0.3U | | 0.3 | 1.2 | ug/L | | | | | | 99.3 |
| Silver | 0.6U | | 0.6 | 2.4 | ug/L | | | | | | NR |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | | | | | 83.6 |
| Barium | 0.2U | | 0.2 | 0.8 | ug/L | | | | | | NR |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Aluminum | 1.07I, V | | 1.0 | 4.0 | ug/L | | | | | | 7.07 |
| Nickel | 1.2U | | 1.2 | 4.8 | ug/L | | | | | | NR |

Blank (B19A181-BLK2)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|----------|--|------|------|------|--|--|--|--|--|------|
| Nickel | 1.2U | | 1.2 | 4.8 | ug/L | | | | | | NR |
| Potassium | 0.05U | | 0.05 | 0.20 | mg/L | | | | | | NR |
| Molybdenum | 3.0U | | 3.0 | 12.0 | ug/L | | | | | | NR |
| Silver | 0.6U | | 0.6 | 2.4 | ug/L | | | | | | NR |
| Sodium | 0.05U | | 0.05 | 0.20 | mg/L | | | | | | 47.1 |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | | | | | NR |
| Manganese | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | NR |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | | | | | 30.8 |
| Iron | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | 37.0 |
| Cadmium | 0.3U | | 0.3 | 1.2 | ug/L | | | | | | 99.3 |
| Magnesium | 0.01U | | 0.01 | 0.04 | mg/L | | | | | | 0.00 |
| Copper | 1.6U | | 1.6 | 6.4 | ug/L | | | | | | NR |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | NR |
| Chromium | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | 50.0 |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | | | | | 83.6 |
| Barium | 0.2U | | 0.2 | 0.8 | ug/L | | | | | | NR |
| Aluminum | 1.19I, V | | 1.0 | 4.0 | ug/L | | | | | | 7.07 |
| Calcium | 0.01I, V | | 0.01 | 0.04 | mg/L | | | | | | 37.2 |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

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 B19A181 - EPA 200.7 (Continued)

Blank (B19A181-BLK2)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|-----------|-------|--|-----|------|------|--|--|--|--|-----|--|
| Strontium | 0.3 U | | 0.3 | 1.2 | ug/L | | | | | 163 | |
| Vanadium | 3.0 U | | 3.0 | 12.0 | ug/L | | | | | NR | |
| Zinc | 1.4 U | | 1.4 | 5.6 | ug/L | | | | | NR | |

LCS (B19A181-BS1)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|-------|--|
| Strontium | 101 | | | | ug/L | 100 | | 101 | 90-110 | 0.00 | |
| Selenium | 97.3 | | | | ug/L | 99.9 | | 97.4 | 90-110 | 1.54 | |
| Barium | 103 | | | | ug/L | 100 | | 103 | 90-110 | 0.00 | |
| Potassium | 23.2 | | | | mg/L | 24.9 | | 93.2 | 90-110 | 0.920 | |
| Nickel | 99.7 | | | | ug/L | 100 | | 99.7 | 90-110 | 0.856 | |
| Silver | 51.8 | | | | ug/L | 50.1 | | 103 | 90-110 | 0.137 | |
| Magnesium | 25.5 | | | | mg/L | 25.1 | | 102 | 90-110 | 1.97 | |
| Beryllium | 99.9 | | | | ug/L | 99.3 | | 101 | 90-110 | 1.47 | |
| Manganese | 104 | | | | ug/L | 101 | | 103 | 90-110 | 1.37 | |
| Molybdenum | 102 | | | | ug/L | 100 | | 102 | 90-110 | 1.97 | |
| Cobalt | 97.3 | | | | ug/L | 101 | | 96.3 | 90-110 | 1.47 | |
| Aluminum | 107 | | | | ug/L | 100 | | 107 | 90-110 | 1.33 | |
| Arsenic | 102 | | | | ug/L | 99.3 | | 103 | 90-110 | 0.00 | |
| Cadmium | 102 | | | | ug/L | 100 | | 102 | 90-110 | 0.697 | |
| Iron | 105 | | | | ug/L | 101 | | 104 | 90-110 | 1.36 | |
| Copper | 104 | | | | ug/L | 100 | | 104 | 90-110 | 1.37 | |
| Lead | 104 | | | | ug/L | 100 | | 104 | 90-110 | 1.37 | |
| Zinc | 104 | | | | ug/L | 100 | | 104 | 90-110 | 1.37 | |
| Calcium | 25.0 | | | | mg/L | 24.8 | | 101 | 90-110 | 0.00 | |
| Vanadium | 98.8 | | | | ug/L | 101 | | 97.8 | 90-110 | 0.428 | |
| Chromium | 95.6 | | | | ug/L | 100 | | 95.6 | 90-110 | 1.27 | |
| Sodium | 24.9 | | | | mg/L | 24.8 | | 100 | 90-110 | 1.72 | |

LCS (B19A181-BS2)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|-------|--|
| Barium | 103 | | | | ug/L | 100 | | 103 | 90-110 | 0.00 | |
| Cadmium | 101 | | | | ug/L | 100 | | 101 | 90-110 | 0.697 | |
| Aluminum | 105 | | | | ug/L | 100 | | 105 | 90-110 | 1.33 | |
| Chromium | 93.9 | | | | ug/L | 100 | | 93.9 | 90-110 | 1.27 | |
| Copper | 102 | | | | ug/L | 100 | | 102 | 90-110 | 1.37 | |
| Molybdenum | 99.2 | | | | ug/L | 100 | | 99.2 | 90-110 | 1.97 | |
| Iron | 103 | | | | ug/L | 101 | | 102 | 90-110 | 1.36 | |
| Zinc | 102 | | | | ug/L | 100 | | 102 | 90-110 | 1.37 | |
| Cobalt | 95.3 | | | | ug/L | 101 | | 94.4 | 90-110 | 1.47 | |
| Beryllium | 102 | | | | ug/L | 99.3 | | 103 | 90-110 | 1.47 | |
| Vanadium | 99.4 | | | | ug/L | 101 | | 98.4 | 90-110 | 0.428 | |
| Sodium | 24.3 | | | | mg/L | 24.8 | | 98.0 | 90-110 | 1.72 | |
| Nickel | 98.5 | | | | ug/L | 100 | | 98.5 | 90-110 | 0.856 | |
| Arsenic | 102 | | | | ug/L | 99.3 | | 103 | 90-110 | 0.00 | |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

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 B19A181 - EPA 200.7 (Continued)

LCS (B19A181-BS2)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|-----------|------|--|--|--|------|------|--|------|--------|-------|--|
| Calcium | 25.0 | | | | mg/L | 24.8 | | 101 | 90-110 | 0.00 | |
| Manganese | 102 | | | | ug/L | 101 | | 101 | 90-110 | 1.37 | |
| Selenium | 95.2 | | | | ug/L | 99.9 | | 95.3 | 90-110 | 1.54 | |
| Potassium | 22.9 | | | | mg/L | 24.9 | | 92.0 | 90-110 | 0.920 | |
| Silver | 51.7 | | | | ug/L | 50.1 | | 103 | 90-110 | 0.137 | |
| Strontium | 101 | | | | ug/L | 100 | | 101 | 90-110 | 0.00 | |
| Magnesium | 24.8 | | | | mg/L | 25.1 | | 98.8 | 90-110 | 1.97 | |
| Lead | 102 | | | | ug/L | 100 | | 102 | 90-110 | 1.37 | |

Duplicate (B19A181-DUP1)

Source: K19A068-06

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|--|------|--|--|-------|--|
| Beryllium | 0.291 | | 0.10 | 0.40 | ug/L | | 0.21 | | | 23.4 | |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | 7.47 | |
| Copper | 1.6U | | 1.6 | 6.4 | ug/L | | ND | | | 49.2 | |
| Molybdenum | 14.1 | | 3.0 | 12.0 | ug/L | | 14.4 | | | 1.49 | |
| Silver | 0.6U | | 0.6 | 2.4 | ug/L | | ND | | | NR | |
| Cadmium | 0.3U | | 0.3 | 1.2 | ug/L | | ND | | | NR | |
| Cobalt | 1.471 | | 1.0 | 4.0 | ug/L | | 1.78 | | | 13.5 | |
| Nickel | 7.42 | | 1.2 | 4.8 | ug/L | | 6.89 | | | 5.24 | |
| Chromium | 3.281 | | 1.0 | 4.0 | ug/L | | 3.36 | | | 1.70 | |
| Arsenic | 5.851 | | 2.5 | 10.0 | ug/L | | 5.69 | | | 1.96 | |
| Calcium | 114 | | 0.01 | 0.04 | mg/L | | 109 | | | 3.17 | |
| Vanadium | 28.7 | | 3.0 | 12.0 | ug/L | | 28.3 | | | 0.992 | |
| Sodium | 49.0 | | 0.05 | 0.20 | mg/L | | 50.7 | | | 2.41 | |
| Zinc | 5.121 | | 1.4 | 5.6 | ug/L | | 4.95 | | | 2.39 | |
| Barium | 138 | | 0.2 | 0.8 | ug/L | | 133 | | | 2.61 | |
| Magnesium | 17.3 | | 0.01 | 0.04 | mg/L | | 17.5 | | | 0.813 | |
| Aluminum | 853 | | 1.0 | 4.0 | ug/L | | 846 | | | 0.583 | |
| Iron | 7480 | | 2.0 | 8.0 | ug/L | | 7740 | | | 2.38 | |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | 10.6 | |
| Manganese | 53.5 | | 1.0 | 4.0 | ug/L | | 54.0 | | | 0.658 | |
| Strontium | 853 | | 0.3 | 1.2 | ug/L | | 820 | | | 2.79 | |
| Potassium | 9.52 | | 0.05 | 0.20 | mg/L | | 9.18 | | | 2.57 | |

Duplicate (B19A181-DUP2)

Source: K19A067-08

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|-------|--|-----|------|------|--|------|--|--|-------|--|
| Nickel | 2.341 | | 1.2 | 4.8 | ug/L | | 2.28 | | | 1.84 | |
| Arsenic | 2.721 | | 2.5 | 10.0 | ug/L | | 2.64 | | | 2.11 | |
| Molybdenum | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | NR | |
| Manganese | 6.70 | | 1.0 | 4.0 | ug/L | | 6.66 | | | 0.423 | |
| Lead | 3.421 | | 3.0 | 12.0 | ug/L | | ND | | | 30.9 | |
| Iron | 1140 | | 1.0 | 4.0 | ug/L | | 1140 | | | 0.187 | |
| Copper | 43.5 | | 1.6 | 6.4 | ug/L | | 44.2 | | | 1.13 | |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | ND | | | 0.233 | |
| Vanadium | 9.831 | | 3.0 | 12.0 | ug/L | | 10.2 | | | 2.61 | |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

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 B19A181 - EPA 200.7 (Continued)

| Duplicate (B19A181-DUP2) | Source: K19A067-08 | | | | Prepared: 1/29/2019 Analyzed: 1/31/2019 | | | | | | |
|--------------------------|--------------------|--|------|------|-----------------------------------------|--|------|--|--|--------|--|
| Zinc | 2.72 I | | 1.4 | 5.6 | ug/L | | 2.79 | | | 1.80 | |
| Magnesium | 2.03 | | 0.01 | 0.04 | mg/L | | 2.04 | | | 0.347 | |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | ND | | | NR | |
| Sodium | 8.77 | | 0.05 | 0.20 | mg/L | | 8.76 | | | 0.0807 | |
| Aluminum | 295 | | 1.0 | 4.0 | ug/L | | 295 | | | 0.00 | |
| Calcium | 14.7 | | 0.01 | 0.04 | mg/L | | 14.7 | | | 0.00 | |
| Silver | 0.6 U | | 0.6 | 2.4 | ug/L | | ND | | | 111 | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | NR | |
| Chromium | 2.09 I | | 1.0 | 4.0 | ug/L | | 1.96 | | | 4.54 | |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | ND | | | 171 | |
| Barium | 6.8 | | 0.2 | 0.8 | ug/L | | 6.8 | | | 0.418 | |
| Potassium | 0.07 I | | 0.05 | 0.20 | mg/L | | 0.07 | | | 0.00 | |
| Strontium | 21.4 | | 0.3 | 1.2 | ug/L | | 21.5 | | | 0.330 | |

| Duplicate (B19A181-DUP3) | Source: K19A070-01 | | | | Prepared: 1/29/2019 Analyzed: 1/31/2019 | | | | | | |
|--------------------------|--------------------|--|------|------|-----------------------------------------|--|------|--|--|-------|--|
| Strontium | 602 | | 0.3 | 1.2 | ug/L | | 637 | | | 3.99 | |
| Barium | 26.0 | | 0.2 | 0.8 | ug/L | | 27.1 | | | 2.93 | |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | ND | | | 8.43 | |
| Chromium | 1.83 I | | 1.0 | 4.0 | ug/L | | 1.96 | | | 4.85 | |
| Calcium | 67.7 | | 0.01 | 0.04 | mg/L | | 72.0 | | | 4.35 | |
| Aluminum | 62.8 | | 1.0 | 4.0 | ug/L | | 62.4 | | | 0.452 | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | 15.1 | |
| Arsenic | 3.75 I | | 2.5 | 10.0 | ug/L | | 4.09 | | | 6.13 | |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | ND | | | 31.9 | |
| Copper | 1.6 U | | 1.6 | 6.4 | ug/L | | 1.60 | | | 17.2 | |
| Magnesium | 32.6 | | 0.01 | 0.04 | mg/L | | 32.0 | | | 1.31 | |
| Iron | 181 | | 1.0 | 4.0 | ug/L | | 176 | | | 1.98 | |
| Nickel | 43.8 | | 1.2 | 4.8 | ug/L | | 41.9 | | | 3.14 | |
| Potassium | 6.97 | | 0.05 | 0.20 | mg/L | | 7.40 | | | 4.23 | |
| Vanadium | 11.6 I | | 3.0 | 12.0 | ug/L | | 12.3 | | | 4.14 | |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | ND | | | 20.7 | |
| Manganese | 15.4 | | 1.0 | 4.0 | ug/L | | 15.1 | | | 1.39 | |
| Silver | 0.6 U | | 0.6 | 2.4 | ug/L | | ND | | | 115 | |
| Sodium | 354 | | 0.25 | 1.00 | mg/L | | 349 | | | 1.01 | |
| Zinc | 10.3 | | 1.4 | 5.6 | ug/L | | 12.3 | | | 12.5 | |
| Molybdenum | 18.3 | | 3.0 | 12.0 | ug/L | | 18.2 | | | 0.387 | |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | ND | | | NR | |

| Matrix Spike (B19A181-MS1) | Source: K19A068-06 | | | | Prepared: 1/29/2019 Analyzed: 1/31/2019 | | | | | | |
|----------------------------|--------------------|--|------|------|-----------------------------------------|------|------|-----|--------|--|--|
| Vanadium | 557 | | 6.0 | 24.0 | ug/L | 500 | 28.3 | 106 | 90-110 | | |
| Molybdenum | 553 | | 6.0 | 24.0 | ug/L | 500 | 14.4 | 108 | 90-110 | | |
| Calcium | 136 | | 0.02 | 0.08 | mg/L | 25.0 | 109 | 108 | 90-110 | | |
| Copper | 224 J | | 3.2 | 12.8 | ug/L | 200 | ND | 112 | 90-110 | | |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

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 B19A181 - EPA 200.7 (Continued)

Matrix Spike (B19A181-MS1)

Source: K19A068-06

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|-----------|--------|--|------|------|------|------|------|------|--------|--|--|
| Cadmium | 53.2 | | 0.6 | 2.4 | ug/L | 50.0 | ND | 106 | 90-110 | | |
| Aluminum | 1430 J | | 2.0 | 8.0 | ug/L | 500 | 846 | 116 | 90-110 | | |
| Lead | 216 | | 6.0 | 24.0 | ug/L | 200 | ND | 108 | 90-110 | | |
| Arsenic | 213 | | 5.0 | 20.0 | ug/L | 200 | 5.69 | 104 | 90-110 | | |
| Iron | 8550 J | | 2.0 | 8.0 | ug/L | 1000 | 7740 | 81.3 | 90-110 | | |
| Barium | 672 | | 0.4 | 1.6 | ug/L | 500 | 133 | 108 | 90-110 | | |
| Selenium | 58.0 J | | 8.0 | 32.0 | ug/L | 50.0 | ND | 116 | 90-110 | | |
| Cobalt | 208 | | 2.0 | 8.0 | ug/L | 200 | 1.78 | 104 | 90-110 | | |
| Silver | 53.2 | | 1.2 | 4.8 | ug/L | 50.0 | ND | 106 | 90-110 | | |
| Chromium | 208 | | 2.0 | 8.0 | ug/L | 200 | 3.36 | 102 | 90-110 | | |
| Sodium | 76.0 | | 0.10 | 0.40 | mg/L | 25.0 | 50.7 | 101 | 90-110 | | |
| Strontium | 1340 | | 0.6 | 2.4 | ug/L | 500 | 820 | 103 | 90-110 | | |
| Zinc | 224 | | 2.8 | 11.2 | ug/L | 200 | 4.95 | 110 | 90-110 | | |
| Potassium | 35.7 | | 0.10 | 0.40 | mg/L | 25.0 | 9.18 | 106 | 90-110 | | |
| Magnesium | 44.0 | | 0.02 | 0.08 | mg/L | 25.0 | 17.5 | 106 | 90-110 | | |
| Beryllium | 219 | | 0.20 | 0.80 | ug/L | 200 | 0.21 | 109 | 90-110 | | |
| Nickel | 217 | | 2.4 | 9.6 | ug/L | 200 | 6.89 | 105 | 90-110 | | |
| Manganese | 265 | | 2.0 | 8.0 | ug/L | 200 | 54.0 | 106 | 90-110 | | |

Matrix Spike (B19A181-MS2)

Source: K19A067-08

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|------|------|-----|--------|--|--|
| Calcium | 42.2 | | 0.01 | 0.04 | mg/L | 25.0 | 14.7 | 110 | 90-110 | | |
| Cadmium | 52.5 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 105 | 90-110 | | |
| Iron | 2220 | | 1.0 | 4.0 | ug/L | 1000 | 1140 | 108 | 90-110 | | |
| Copper | 257 | | 1.6 | 6.4 | ug/L | 200 | 44.2 | 106 | 90-110 | | |
| Aluminum | 830 | | 1.0 | 4.0 | ug/L | 500 | 295 | 107 | 90-110 | | |
| Sodium | 34.4 | | 0.05 | 0.20 | mg/L | 25.0 | 8.76 | 103 | 90-110 | | |
| Molybdenum | 531 | | 3.0 | 12.0 | ug/L | 500 | ND | 106 | 90-110 | | |
| Silver | 53.1 | | 0.6 | 2.4 | ug/L | 50.0 | ND | 106 | 90-110 | | |
| Zinc | 216 | | 1.4 | 5.6 | ug/L | 200 | 2.79 | 107 | 90-110 | | |
| Strontium | 537 | | 0.3 | 1.2 | ug/L | 500 | 21.5 | 103 | 90-110 | | |
| Nickel | 211 | | 1.2 | 4.8 | ug/L | 200 | 2.28 | 104 | 90-110 | | |
| Beryllium | 222 J | | 0.10 | 0.40 | ug/L | 200 | ND | 111 | 90-110 | | |
| Lead | 216 | | 3.0 | 12.0 | ug/L | 200 | ND | 108 | 90-110 | | |
| Vanadium | 529 | | 3.0 | 12.0 | ug/L | 500 | 10.2 | 104 | 90-110 | | |
| Chromium | 202 | | 1.0 | 4.0 | ug/L | 200 | 1.96 | 100 | 90-110 | | |
| Manganese | 217 | | 1.0 | 4.0 | ug/L | 200 | 6.66 | 105 | 90-110 | | |
| Magnesium | 28.7 | | 0.01 | 0.04 | mg/L | 25.0 | 2.04 | 107 | 90-110 | | |
| Arsenic | 209 | | 2.5 | 10.0 | ug/L | 200 | 2.64 | 103 | 90-110 | | |
| Cobalt | 203 | | 1.0 | 4.0 | ug/L | 200 | ND | 102 | 90-110 | | |
| Barium | 538 | | 0.2 | 0.8 | ug/L | 500 | 6.8 | 106 | 90-110 | | |
| Selenium | 50.8 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 102 | 90-110 | | |
| Potassium | 25.5 | | 0.05 | 0.20 | mg/L | 25.0 | 0.07 | 102 | 90-110 | | |



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

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 B19A181 - EPA 200.7 (Continued)

Matrix Spike (B19A181-MS3)

Source: K19A070-01

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|-------|------|------|--------|--|--|
| Potassium | 259 | | 0.50 | 2.00 | mg/L | 250 | 7.40 | 101 | 90-110 | | |
| Copper | 2040 | | 16.0 | 64.0 | ug/L | 2000 | 1.60 | 102 | 90-110 | | |
| Silver | 505 | | 6.0 | 24.0 | ug/L | 500 | ND | 101 | 90-110 | | |
| Vanadium | 5010 | | 30.0 | 120 | ug/L | 5000 | 12.3 | 100 | 90-110 | | |
| Strontium | 5530 | | 3.0 | 12.0 | ug/L | 5000 | 637 | 97.9 | 90-110 | | |
| Sodium | 599 | | 0.50 | 2.00 | mg/L | 250 | 349 | 100 | 90-110 | | |
| Molybdenum | 5100 | | 30.0 | 120 | ug/L | 5000 | 18.2 | 102 | 90-110 | | |
| Lead | 2040 | | 30.0 | 120 | ug/L | 2000 | ND | 102 | 90-110 | | |
| Calcium | 327 | | 0.10 | 0.40 | mg/L | 250 | 72.0 | 102 | 90-110 | | |
| Chromium | 1900 | | 10.0 | 40.0 | ug/L | 2000 | 1.96 | 95.0 | 90-110 | | |
| Cobalt | 1950 | | 10.0 | 40.0 | ug/L | 2000 | ND | 97.5 | 90-110 | | |
| Selenium | 492 | | 40.0 | 160 | ug/L | 500 | ND | 98.4 | 90-110 | | |
| Manganese | 2020 | | 10.0 | 40.0 | ug/L | 2000 | 15.1 | 100 | 90-110 | | |
| Cadmium | 507 | | 3.0 | 12.0 | ug/L | 500 | ND | 101 | 90-110 | | |
| Beryllium | 2130 | | 1.00 | 4.00 | ug/L | 2000 | ND | 106 | 90-110 | | |
| Nickel | 2050 | | 12.0 | 48.0 | ug/L | 2000 | 41.9 | 100 | 90-110 | | |
| Iron | 10300 | | 10.0 | 40.0 | ug/L | 10000 | 176 | 102 | 90-110 | | |
| Magnesium | 286 | | 0.10 | 0.40 | mg/L | 250 | 32.0 | 102 | 90-110 | | |
| Zinc | 2080 | | 14.0 | 56.0 | ug/L | 2000 | 12.3 | 104 | 90-110 | | |
| Arsenic | 2040 | | 25.0 | 100 | ug/L | 2000 | 4.09 | 102 | 90-110 | | |
| Aluminum | 5070 | | 10.0 | 40.0 | ug/L | 5000 | 62.4 | 100 | 90-110 | | |
| Barium | 5110 | | 2.0 | 8.0 | ug/L | 5000 | 27.1 | 102 | 90-110 | | |

Batch B19B060 - MERCURY

Blank (B19B060-BLK1)

Prepared & Analyzed: 2/11/2019

| | | | | | | | | | | | |
|---------|---------|--|-------|-------|------|--|--|--|--|--|--|
| Mercury | 0.100 U | | 0.100 | 0.400 | ug/L | | | | | | |
|---------|---------|--|-------|-------|------|--|--|--|--|--|--|

LCS (B19B060-BS1)

Prepared & Analyzed: 2/11/2019

| | | | | | | | | | | | |
|---------|------|--|-------|-------|------|------|--|------|--------|--|--|
| Mercury | 1.90 | | 0.100 | 0.400 | ug/L | 2.00 | | 95.0 | 90-110 | | |
|---------|------|--|-------|-------|------|------|--|------|--------|--|--|

Duplicate (B19B060-DUP1)

Source: K19A067-10

Prepared & Analyzed: 2/11/2019

| | | | | | | | | | | | |
|---------|---------|--|-------|-------|------|--|----|--|--|----|--|
| Mercury | 0.100 U | | 0.100 | 0.400 | ug/L | | ND | | | NR | |
|---------|---------|--|-------|-------|------|--|----|--|--|----|--|

Matrix Spike (B19B060-MS1)

Source: K19A067-10

Prepared & Analyzed: 2/11/2019

| | | | | | | | | | | | |
|---------|------|--|-------|-------|------|------|----|-----|--------|--|--|
| Mercury | 2.01 | | 0.100 | 0.400 | ug/L | 2.01 | ND | 100 | 90-110 | | |
|---------|------|--|-------|-------|------|------|----|-----|--------|--|--|

Batch B19B071 - MERCURY

Blank (B19B071-BLK1)

Prepared & Analyzed: 2/12/2019

| | | | | | | | | | | | |
|---------|---------|--|-------|-------|------|--|--|--|--|--|--|
| Mercury | 0.100 U | | 0.100 | 0.400 | ug/L | | | | | | |
|---------|---------|--|-------|-------|------|--|--|--|--|--|--|



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

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 B19B071 - MERCURY (Continued)

Blank (B19B071-BLK1)

Prepared & Analyzed: 2/12/2019

LCS (B19B071-BS1)

Prepared & Analyzed: 2/12/2019

| | | | | | | | | | | | |
|---------|------|--|-------|-------|------|------|--|------|--------|--|--|
| Mercury | 1.93 | | 0.100 | 0.400 | ug/L | 2.00 | | 96.6 | 90-110 | | |
|---------|------|--|-------|-------|------|------|--|------|--------|--|--|

Duplicate (B19B071-DUP1)

Source: K19B005-01

Prepared & Analyzed: 2/12/2019

| | | | | | | | | | | | |
|---------|------|--|-------|------|------|--|------|--|--|------|--|
| Mercury | 13.4 | | 0.500 | 2.00 | ug/L | | 12.9 | | | 2.83 | |
|---------|------|--|-------|------|------|--|------|--|--|------|--|

Matrix Spike (B19B071-MS1)

Source: K19B005-01

Prepared & Analyzed: 2/12/2019

| | | | | | | | | | | | |
|---------|------|--|-------|------|------|------|------|-----|--------|--|--|
| Mercury | 22.9 | | 0.500 | 2.00 | ug/L | 10.0 | 12.9 | 100 | 90-110 | | |
|---------|------|--|-------|------|------|------|------|-----|--------|--|--|



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

Project: Environmental
Project Number: D19A012
Project Manager: Jeff Boudreau

Reported:
02/14/2019 18:01

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. |
| V | Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the blank value was greater than 10% of the associated sample value. |
| 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(1) | Estimated value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

SENDING LABORATORY:

Gainesville Regional Utilities
 Deerhaven Generating Station
 10001 NW 13th Street
 Gainesville, FL 32653
 Phone: 352-334-3434
 Fax: 352-334-3149
 Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Kanapaha Laboratory
 3901 SW 63rd BLVD
 Gainesville, FL/USA 32608
 Phone :352-393-6777
 Fax: 352-334-2732

| Analysis | Expires | Laboratory ID | Comments |
|------------------------------------|-----------------|---------------------------------|---------------------------------|
| Sample Name: MWD-1-6 (R1T6) | | | |
| Sample ID: D19A012-01 | Water | Sampled: 15-Jan-19 11:48 | <i>K19A067-14^R01</i> |
| K_Potassium | 14-Jul-19 11:48 | | |
| K_Zinc | 14-Jul-19 11:48 | | |
| K_Vanadium | 14-Jul-19 11:48 | | |
| K_Strontium | 14-Jul-19 11:48 | | |
| K_Sodium | 14-Jul-19 11:48 | | |
| K_Aluminum | 14-Jul-19 11:48 | | |
| K_Selenium | 14-Jul-19 11:48 | | |
| K_Nickel | 14-Jul-19 11:48 | | |
| K_Molybdenum | 14-Jul-19 11:48 | | |
| K_Mercury, cold vapor | 12-Feb-19 11:48 | | |
| K_Manganese | 14-Jul-19 11:48 | | |
| K_Calcium | 14-Jul-19 11:48 | | |
| K_Silver | 14-Jul-19 11:48 | | |
| K_Magnesium | 14-Jul-19 11:48 | | |
| K_Barium | 14-Jul-19 11:48 | | |
| K_Cadmium | 14-Jul-19 11:48 | | |
| K_Arsenic | 14-Jul-19 11:48 | | |
| K_Chromium | 14-Jul-19 11:48 | | |
| K_Cobalt | 14-Jul-19 11:48 | | |
| K_Copper | 14-Jul-19 11:48 | | |
| K_Iron | 14-Jul-19 11:48 | | |
| K_Lead | 14-Jul-19 11:48 | | |
| K_Beryllium | 14-Jul-19 11:48 | | |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (E)

| | | | |
|------------------------|----------------|-------------|----------------------|
| <i>Shelby Phillips</i> | <i>1-22-19</i> | <i>S</i> | <i>1-22-19 e1422</i> |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------|-----------------|--------------------------|----------------------------|
| Sample Name: MWB-2-1 (R2T1) | | | |
| Sample ID: D19A012-02 | Water | Sampled: 15-Jan-19 15:23 | K19A067-13 ⁰ 02 |
| K_Manganese | 14-Jul-19 15:23 | | |
| K_Potassium | 14-Jul-19 15:23 | | |
| K_Mercury, cold vapor | 12-Feb-19 15:23 | | |
| K_Molybdenum | 14-Jul-19 15:23 | | |
| K_Nickel | 14-Jul-19 15:23 | | |
| K_Selenium | 14-Jul-19 15:23 | | |
| K_Silver | 14-Jul-19 15:23 | | |
| K_Sodium | 14-Jul-19 15:23 | | |
| K_Zinc | 14-Jul-19 15:23 | | |
| K_Strontium | 14-Jul-19 15:23 | | |
| K_Chromium | 14-Jul-19 15:23 | | |
| K_Vanadium | 14-Jul-19 15:23 | | |
| K_Calcium | 14-Jul-19 15:23 | | |
| K_Copper | 14-Jul-19 15:23 | | |
| K_Barium | 14-Jul-19 15:23 | | |
| K_Magnesium | 14-Jul-19 15:23 | | |
| K_Arsenic | 14-Jul-19 15:23 | | |
| K_Cadmium | 14-Jul-19 15:23 | | |
| K_Aluminum | 14-Jul-19 15:23 | | |
| K_Cobalt | 14-Jul-19 15:23 | | |
| K_Iron | 14-Jul-19 15:23 | | |
| K_Lead | 14-Jul-19 15:23 | | |
| K_Beryllium | 14-Jul-19 15:23 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

| | | | | | | | |
|-------------|-----------------------|------|----------------|-------------|-----------|------|-----------------------|
| Released By | <i>Milly Phillips</i> | Date | <i>1-22-19</i> | Received By | <i>Se</i> | Date | <i>1-22-19 @ 1422</i> |
| Released By | | Date | | Received By | | Date | |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|------------------------------------|-----------------|---------------------------------|---------------------------------|
| Sample Name: MWI-3-7 (R3T7) | | K19A067-12⁸03 | |
| Sample ID: D19A012-03 | Water | | Sampled: 17-Jan-19 17:20 |
| K_Chromium | 16-Jul-19 17:20 | | |
| K_Magnesium | 16-Jul-19 17:20 | | |
| K_Arsenic | 16-Jul-19 17:20 | | |
| K_Cobalt | 16-Jul-19 17:20 | | |
| K_Aluminum | 16-Jul-19 17:20 | | |
| K_Selenium | 16-Jul-19 17:20 | | |
| K_Silver | 16-Jul-19 17:20 | | |
| K_Sodium | 16-Jul-19 17:20 | | |
| K_Vanadium | 16-Jul-19 17:20 | | |
| K_Copper | 16-Jul-19 17:20 | | |
| K_Zinc | 16-Jul-19 17:20 | | |
| K_Lead | 16-Jul-19 17:20 | | |
| K_Iron | 16-Jul-19 17:20 | | |
| K_Strontium | 16-Jul-19 17:20 | | |
| K_Manganese | 16-Jul-19 17:20 | | |
| K_Beryllium | 16-Jul-19 17:20 | | |
| K_Cadmium | 16-Jul-19 17:20 | | |
| K_Barium | 16-Jul-19 17:20 | | |
| K_Potassium | 16-Jul-19 17:20 | | |
| K_Nickel | 16-Jul-19 17:20 | | |
| K_Molybdenum | 16-Jul-19 17:20 | | |
| K_Mercury, cold vapor | 14-Feb-19 17:20 | | |
| K_Calcium | 16-Jul-19 17:20 | | |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (E)

| | | | |
|------------------------|---------|-------------|----------------|
| <i>Shelly Phillips</i> | 1-22-19 | <i>Su</i> | 1-22-19 @ 1422 |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

Sample Name: MWI-4-5 (R4T5B)

Sample ID: D19A012-04 Water

Sampled: 16-Jan-19 11:20

K19A067-11⁹04

| | |
|-----------------------|-----------------|
| K_Vanadium | 15-Jul-19 11:20 |
| K_Cadmium | 15-Jul-19 11:20 |
| K_Aluminum | 15-Jul-19 11:20 |
| K_Barium | 15-Jul-19 11:20 |
| K_Manganese | 15-Jul-19 11:20 |
| K_Copper | 15-Jul-19 11:20 |
| K_Iron | 15-Jul-19 11:20 |
| K_Zinc | 15-Jul-19 11:20 |
| K_Mercury, cold vapor | 13-Feb-19 11:20 |
| K_Sodium | 15-Jul-19 11:20 |
| K_Strontium | 15-Jul-19 11:20 |
| K_Lead | 15-Jul-19 11:20 |
| K_Calcium | 15-Jul-19 11:20 |
| K_Chromium | 15-Jul-19 11:20 |
| K_Arsenic | 15-Jul-19 11:20 |
| K_Cobalt | 15-Jul-19 11:20 |
| K_Nickel | 15-Jul-19 11:20 |
| K_Magnesium | 15-Jul-19 11:20 |
| K_Potassium | 15-Jul-19 11:20 |
| K_Selenium | 15-Jul-19 11:20 |
| K_Silver | 15-Jul-19 11:20 |
| K_Molybdenum | 15-Jul-19 11:20 |
| K_Beryllium | 15-Jul-19 11:20 |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (E)

| | | | |
|-------------|---------|-------------|----------------|
| | 1-22-19 | | 1-22-19 e.1422 |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------------|-----------------|---------------------------------|---------------------------------|
| Sample Name: MWD-6-1 (R6T1B) | | | |
| Sample ID: D19A012-05 | Water | Sampled: 14-Jan-19 10:16 | K19A067-10⁵05 |
| K_Mercury, cold vapor | 11-Feb-19 10:16 | | |
| K_Iron | 13-Jul-19 10:16 | | |
| K_Copper | 13-Jul-19 10:16 | | |
| K_Zinc | 13-Jul-19 10:16 | | |
| K_Vanadium | 13-Jul-19 10:16 | | |
| K_Molybdenum | 13-Jul-19 10:16 | | |
| K_Manganese | 13-Jul-19 10:16 | | |
| K_Magnesium | 13-Jul-19 10:16 | | |
| K_Barium | 13-Jul-19 10:16 | | |
| K_Chromium | 13-Jul-19 10:16 | | |
| K_Nickel | 13-Jul-19 10:16 | | |
| K_Beryllium | 13-Jul-19 10:16 | | |
| K_Lead | 13-Jul-19 10:16 | | |
| K_Potassium | 13-Jul-19 10:16 | | |
| K_Arsenic | 13-Jul-19 10:16 | | |
| K_Cobalt | 13-Jul-19 10:16 | | |
| K_Cadmium | 13-Jul-19 10:16 | | |
| K_Calcium | 13-Jul-19 10:16 | | |
| K_Silver | 13-Jul-19 10:16 | | |
| K_Aluminum | 13-Jul-19 10:16 | | |
| K_Strontium | 13-Jul-19 10:16 | | |
| K_Selenium | 13-Jul-19 10:16 | | |
| K_Sodium | 13-Jul-19 10:16 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

| | | | |
|------------------------|----------------|-------------|-----------------------|
| <i>Shelby Phillips</i> | <i>1-22-19</i> | <i>S ~</i> | <i>1-22-19 @ 1422</i> |
| Released By | Date | Received By | Date |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------------|-----------------|---------------------------------|----------------------------|
| Sample Name: MWI-6-4 (R6T4B) | | | |
| Sample ID: D19A012-06 | Water | Sampled: 16-Jan-19 09:05 | K19A067-09 ⁸ 06 |
| K_Chromium | 15-Jul-19 09:05 | | |
| K_Copper | 15-Jul-19 09:05 | | |
| K_Magnesium | 15-Jul-19 09:05 | | |
| K_Strontium | 15-Jul-19 09:05 | | |
| K_Mercury, cold vapor | 13-Feb-19 09:05 | | |
| K_Vanadium | 15-Jul-19 09:05 | | |
| K_Sodium | 15-Jul-19 09:05 | | |
| K_Silver | 15-Jul-19 09:05 | | |
| K_Cadmium | 15-Jul-19 09:05 | | |
| K_Zinc | 15-Jul-19 09:05 | | |
| K_Manganese | 15-Jul-19 09:05 | | |
| K_Selenium | 15-Jul-19 09:05 | | |
| K_Potassium | 15-Jul-19 09:05 | | |
| K_Nickel | 15-Jul-19 09:05 | | |
| K_Molybdenum | 15-Jul-19 09:05 | | |
| K_Lead | 15-Jul-19 09:05 | | |
| K_Beryllium | 15-Jul-19 09:05 | | |
| K_Barium | 15-Jul-19 09:05 | | |
| K_Arsenic | 15-Jul-19 09:05 | | |
| K_Aluminum | 15-Jul-19 09:05 | | |
| K_Iron | 15-Jul-19 09:05 | | |
| K_Calcium | 15-Jul-19 09:05 | | |
| K_Cobalt | 15-Jul-19 09:05 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

| | | | |
|-------------|---------|-------------|----------------|
| | 1-22-19 | S. — | 1-22-19 @ 1422 |
| Released By | Date | Received By | Date |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------------|-----------------|---------------------------------|---------------------------------|
| Sample Name: MWI-6-8 (R6T8B) | | | |
| Sample ID: D19A012-07 | Water | Sampled: 18-Jan-19 10:16 | K19A06708^R 07 |
| K_Strontium | 17-Jul-19 10:16 | | |
| K_Iron | 17-Jul-19 10:16 | | |
| K_Beryllium | 17-Jul-19 10:16 | | |
| K_Barium | 17-Jul-19 10:16 | | |
| K_Aluminum | 17-Jul-19 10:16 | | |
| K_Lead | 17-Jul-19 10:16 | | |
| K_Arsenic | 17-Jul-19 10:16 | | |
| K_Vanadium | 17-Jul-19 10:16 | | |
| K_Sodium | 17-Jul-19 10:16 | | |
| K_Cadmium | 17-Jul-19 10:16 | | |
| K_Calcium | 17-Jul-19 10:16 | | |
| K_Potassium | 17-Jul-19 10:16 | | |
| K_Cobalt | 17-Jul-19 10:16 | | |
| K_Copper | 17-Jul-19 10:16 | | |
| K_Molybdenum | 17-Jul-19 10:16 | | |
| K_Nickel | 17-Jul-19 10:16 | | |
| K_Magnesium | 17-Jul-19 10:16 | | |
| K_Manganese | 17-Jul-19 10:16 | | |
| K_Mercury, cold vapor | 15-Feb-19 10:16 | | |
| K_Chromium | 17-Jul-19 10:16 | | |
| K_Silver | 17-Jul-19 10:16 | | |
| K_Zinc | 17-Jul-19 10:16 | | |
| K_Selenium | 17-Jul-19 10:16 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

| | | | |
|-------------|---------|-------------|---------------|
| | 1-22-19 | | 1-22-19 01422 |
| Released By | Date | Received By | Date |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|--------------------------------------|-----------------|---------------------------------|----------------------------------|
| Sample Name: MWD-6-12 (R6T12) | | | |
| Sample ID: D19A012-08 | Water | Sampled: 18-Jan-19 16:52 | K19A067-07² 08 |
| K_Selenium | 17-Jul-19 16:52 | | |
| K_Magnesium | 17-Jul-19 16:52 | | |
| K_Iron | 17-Jul-19 16:52 | | |
| K_Chromium | 17-Jul-19 16:52 | | |
| K_Calcium | 17-Jul-19 16:52 | | |
| K_Cobalt | 17-Jul-19 16:52 | | |
| K_Silver | 17-Jul-19 16:52 | | |
| K_Lead | 17-Jul-19 16:52 | | |
| K_Copper | 17-Jul-19 16:52 | | |
| K_Nickel | 17-Jul-19 16:52 | | |
| K_Barium | 17-Jul-19 16:52 | | |
| K_Aluminum | 17-Jul-19 16:52 | | |
| K_Arsenic | 17-Jul-19 16:52 | | |
| K_Cadmium | 17-Jul-19 16:52 | | |
| K_Manganese | 17-Jul-19 16:52 | | |
| K_Molybdenum | 17-Jul-19 16:52 | | |
| K_Sodium | 17-Jul-19 16:52 | | |
| K_Potassium | 17-Jul-19 16:52 | | |
| K_Zinc | 17-Jul-19 16:52 | | |
| K_Vanadium | 17-Jul-19 16:52 | | |
| K_Beryllium | 17-Jul-19 16:52 | | |
| K_Strontium | 17-Jul-19 16:52 | | |
| K_Mercury, cold vapor | 15-Feb-19 16:52 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

| | | | |
|-------------|---------|-------------|-----------------|
| | 1-22-19 | | 1-22-19...E1422 |
| Released By | Date | Received By | Date |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|--------------------------------------|-----------------|---------------------------------|----------------------|
| Sample Name: MWC-8-10 (R8T10) | | | |
| Sample ID: D19A012-09 | Water | Sampled: 18-Jan-19 15:54 | K19A067-06 09 |
| K_Nickel | 17-Jul-19 15:54 | | |
| K_Iron | 17-Jul-19 15:54 | | |
| K_Copper | 17-Jul-19 15:54 | | |
| K_Silver | 17-Jul-19 15:54 | | |
| K_Selenium | 17-Jul-19 15:54 | | |
| K_Lead | 17-Jul-19 15:54 | | |
| K_Cadmium | 17-Jul-19 15:54 | | |
| K_Strontium | 17-Jul-19 15:54 | | |
| K_Vanadium | 17-Jul-19 15:54 | | |
| K_Zinc | 17-Jul-19 15:54 | | |
| K_Potassium | 17-Jul-19 15:54 | | |
| K_Beryllium | 17-Jul-19 15:54 | | |
| K_Magnesium | 17-Jul-19 15:54 | | |
| K_Manganese | 17-Jul-19 15:54 | | |
| K_Sodium | 17-Jul-19 15:54 | | |
| K_Mercury, cold vapor | 15-Feb-19 15:54 | | |
| K_Cobalt | 17-Jul-19 15:54 | | |
| K_Barium | 17-Jul-19 15:54 | | |
| K_Molybdenum | 17-Jul-19 15:54 | | |
| K_Aluminum | 17-Jul-19 15:54 | | |
| K_Arsenic | 17-Jul-19 15:54 | | |
| K_Calcium | 17-Jul-19 15:54 | | |
| K_Chromium | 17-Jul-19 15:54 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

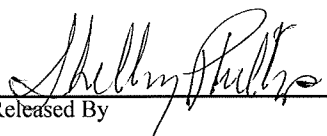

| | | | |
|------------------------|----------------|-------------|----------------------|
| <i>Shelby Phillips</i> | <i>1-22-19</i> | <i>S. —</i> | <i>1-22-19 01422</i> |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------|-----------------|---------------|--------------------------|
| Sample Name: MWI-9-5 (R9T5B) | | K19A067-0810 | |
| Sample ID: D19A012-10 | Water | | Sampled: 17-Jan-19 14:01 |
| K_Silver | 16-Jul-19 14:01 | | |
| K_Vanadium | 16-Jul-19 14:01 | | |
| K_Zinc | 16-Jul-19 14:01 | | |
| K_Cobalt | 16-Jul-19 14:01 | | |
| K_Arsenic | 16-Jul-19 14:01 | | |
| K_Aluminum | 16-Jul-19 14:01 | | |
| K_Copper | 16-Jul-19 14:01 | | |
| K_Iron | 16-Jul-19 14:01 | | |
| K_Manganese | 16-Jul-19 14:01 | | |
| K_Mercury, cold vapor | 14-Feb-19 14:01 | | |
| K_Barium | 16-Jul-19 14:01 | | |
| K_Beryllium | 16-Jul-19 14:01 | | |
| K_Lead | 16-Jul-19 14:01 | | |
| K_Cadmium | 16-Jul-19 14:01 | | |
| K_Magnesium | 16-Jul-19 14:01 | | |
| K_Chromium | 16-Jul-19 14:01 | | |
| K_Sodium | 16-Jul-19 14:01 | | |
| K_Molybdenum | 16-Jul-19 14:01 | | |
| K_Nickel | 16-Jul-19 14:01 | | |
| K_Potassium | 16-Jul-19 14:01 | | |
| K_Selenium | 16-Jul-19 14:01 | | |
| K_Strontium | 16-Jul-19 14:01 | | |
| K_Calcium | 16-Jul-19 14:01 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

| | | | |
|------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------|----------------|
|  | 1-22-19 |  | 1-22-19 e 1422 |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|--------------------------------------|-----------------|---------------------------------|---------------------|
| Sample Name: MWC-10-8 (R10T8) | | | |
| Sample ID: D19A012-11 | Water | Sampled: 18-Jan-19 13:57 | K19A067-0911 |
| K_Aluminum | 17-Jul-19 13:57 | | |
| K_Lead | 17-Jul-19 13:57 | | |
| K_Sodium | 17-Jul-19 13:57 | | |
| K_Arsenic | 17-Jul-19 13:57 | | |
| K_Cobalt | 17-Jul-19 13:57 | | |
| K_Selenium | 17-Jul-19 13:57 | | |
| K_Barium | 17-Jul-19 13:57 | | |
| K_Beryllium | 17-Jul-19 13:57 | | |
| K_Cadmium | 17-Jul-19 13:57 | | |
| K_Calcium | 17-Jul-19 13:57 | | |
| K_Chromium | 17-Jul-19 13:57 | | |
| K_Mercury, cold vapor | 15-Feb-19 13:57 | | |
| K_Molybdenum | 17-Jul-19 13:57 | | |
| K_Manganese | 17-Jul-19 13:57 | | |
| K_Potassium | 17-Jul-19 13:57 | | |
| K_Copper | 17-Jul-19 13:57 | | |
| K_Vanadium | 17-Jul-19 13:57 | | |
| K_Strontium | 17-Jul-19 13:57 | | |
| K_Silver | 17-Jul-19 13:57 | | |
| K_Zinc | 17-Jul-19 13:57 | | |
| K_Magnesium | 17-Jul-19 13:57 | | |
| K_Iron | 17-Jul-19 13:57 | | |
| K_Nickel | 17-Jul-19 13:57 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

| | | | |
|-------------------------|----------------|-------------|----------------------|
| <i>Shelley Phillips</i> | <i>1-22-19</i> | <i>S. —</i> | <i>1-22-19 e1422</i> |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|---------------------------------------|-----------------|----------------------------|---------------------------------|
| Sample Name: MWC-11-4 (R11T4B) | | K19A067-03 ⁸ 12 | |
| Sample ID: D19A012-12 | Water | | Sampled: 18-Jan-19 12:32 |
| K_Molybdenum | 17-Jul-19 12:32 | | |
| K_Zinc | 17-Jul-19 12:32 | | |
| K_Chromium | 17-Jul-19 12:32 | | |
| K_Magnesium | 17-Jul-19 12:32 | | |
| K_Silver | 17-Jul-19 12:32 | | |
| K_Mercury, cold vapor | 15-Feb-19 12:32 | | |
| K_Calcium | 17-Jul-19 12:32 | | |
| K_Sodium | 17-Jul-19 12:32 | | |
| K_Strontium | 17-Jul-19 12:32 | | |
| K_Cobalt | 17-Jul-19 12:32 | | |
| K_Arsenic | 17-Jul-19 12:32 | | |
| K_Manganese | 17-Jul-19 12:32 | | |
| K_Lead | 17-Jul-19 12:32 | | |
| K_Selenium | 17-Jul-19 12:32 | | |
| K_Iron | 17-Jul-19 12:32 | | |
| K_Copper | 17-Jul-19 12:32 | | |
| K_Nickel | 17-Jul-19 12:32 | | |
| K_Cadmium | 17-Jul-19 12:32 | | |
| K_Beryllium | 17-Jul-19 12:32 | | |
| K_Barium | 17-Jul-19 12:32 | | |
| K_Aluminum | 17-Jul-19 12:32 | | |
| K_Vanadium | 17-Jul-19 12:32 | | |
| K_Potassium | 17-Jul-19 12:32 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

| | | | |
|-------------------------|----------------|-------------|------------------------|
| <i>Shelley Phillips</i> | <i>1-22-19</i> | <i>S. ~</i> | <i>1-22-19 :e 1422</i> |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|---------------------------------------|-----------------|----------------------------|---------------------------------|
| Sample Name: MWC-DEEP (DEEP-1) | | K19A067-02 ^r 13 | |
| Sample ID: D19A012-13 | Water | | Sampled: 19-Jan-19 09:04 |
| K_Iron | 18-Jul-19 09:04 | | |
| K_Copper | 18-Jul-19 09:04 | | |
| K_Cobalt | 18-Jul-19 09:04 | | |
| K_Lead | 18-Jul-19 09:04 | | |
| K_Molybdenum | 18-Jul-19 09:04 | | |
| K_Nickel | 18-Jul-19 09:04 | | |
| K_Potassium | 18-Jul-19 09:04 | | |
| K_Vanadium | 18-Jul-19 09:04 | | |
| K_Silver | 18-Jul-19 09:04 | | |
| K_Strontium | 18-Jul-19 09:04 | | |
| K_Selenium | 18-Jul-19 09:04 | | |
| K_Sodium | 18-Jul-19 09:04 | | |
| K_Mercury, cold vapor | 16-Feb-19 09:04 | | |
| K_Arsenic | 18-Jul-19 09:04 | | |
| K_Manganese | 18-Jul-19 09:04 | | |
| K_Aluminum | 18-Jul-19 09:04 | | |
| K_Magnesium | 18-Jul-19 09:04 | | |
| K_Barium | 18-Jul-19 09:04 | | |
| K_Beryllium | 18-Jul-19 09:04 | | |
| K_Cadmium | 18-Jul-19 09:04 | | |
| K_Calcium | 18-Jul-19 09:04 | | |
| K_Zinc | 18-Jul-19 09:04 | | |
| K_Chromium | 18-Jul-19 09:04 | | |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (E)

| | | | |
|-------------------------|----------------|-------------|---------------------|
| <i>Shelley Phillips</i> | <i>1-22-19</i> | <i>S</i> | <i>1-22-19 CH22</i> |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A012

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------|-----------------|--------------------------|-------------------|
| Sample Name: EBLANK | | | |
| Sample ID: D19A012-14 | Water | Sampled: 17-Jan-19 12:40 | K19A067-01 1/3/14 |
| K_Potassium | 16-Jul-19 12:40 | | |
| K_Cadmium | 16-Jul-19 12:40 | | |
| K_Calcium | 16-Jul-19 12:40 | | |
| K_Nickel | 16-Jul-19 12:40 | | |
| K_Manganese | 16-Jul-19 12:40 | | |
| K_Selenium | 16-Jul-19 12:40 | | |
| K_Silver | 16-Jul-19 12:40 | | |
| K_Sodium | 16-Jul-19 12:40 | | |
| K_Arsenic | 16-Jul-19 12:40 | | |
| K_Beryllium | 16-Jul-19 12:40 | | |
| K_Molybdenum | 16-Jul-19 12:40 | | |
| K_Barium | 16-Jul-19 12:40 | | |
| K_Aluminum | 16-Jul-19 12:40 | | |
| K_Cobalt | 16-Jul-19 12:40 | | |
| K_Lead | 16-Jul-19 12:40 | | |
| K_Zinc | 16-Jul-19 12:40 | | |
| K_Vanadium | 16-Jul-19 12:40 | | |
| K_Strontium | 16-Jul-19 12:40 | | |
| K_Iron | 16-Jul-19 12:40 | | |
| K_Mercury, cold vapor | 14-Feb-19 12:40 | | |
| K_Magnesium | 16-Jul-19 12:40 | | |
| K_Chromium | 16-Jul-19 12:40 | | |
| K_Copper | 16-Jul-19 12:40 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (E) | | | |

| | | | | |
|------------------------|---------|--------------------|---------|------|
| <i>Shelby Phillips</i> | 1-22-19 | <i>[Signature]</i> | 1-22-19 | 1422 |
| Released By | Date | Received By | Date | |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



Kanapaha Laboratory

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

Florida Department of Health Certification E52099

February 13, 2019

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

RE: Environmental

Enclosed are the results of analyses for samples received by the laboratory on 1/22/2019. 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 Dlhos
Laboratory Supervisor



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

Project: Environmental
Project Number: D19A013
Project Manager: Jeff Boudreau

Reported:
02/13/2019 15:43

ANALYTICAL REPORT FOR SAMPLES

| Laboratory ID | Sample ID | Matrix | Date Sampled | Date Received |
|----------------------|--------------------|---------------|---------------------|----------------------|
| K19A068-01 | D19A013-01 (SIS-1) | Groundwater | 01/16/2019 10:00 | 01/22/2019 14:22 |
| K19A068-02 | D19A013-02 (SIS-2) | Groundwater | 01/16/2019 16:27 | 01/22/2019 14:22 |
| K19A068-03 | D19A013-03 (SIS-3) | Groundwater | 01/16/2019 14:06 | 01/22/2019 14:22 |
| K19A068-04 | D19A013-04 (SIS-4) | Groundwater | 01/16/2019 15:33 | 01/22/2019 14:22 |
| K19A068-05 | D19A013-05 (LF-1) | Groundwater | 01/16/2019 08:03 | 01/22/2019 14:22 |
| K19A068-06 | D19A013-06 (LF-2) | Groundwater | 01/17/2019 08:39 | 01/22/2019 14:22 |
| K19A068-07 | D19A013-07 (LF-3) | Groundwater | 01/17/2019 10:22 | 01/22/2019 14:22 |
| K19A068-08 | D19A013-08 (LF-4) | Groundwater | 01/17/2019 11:47 | 01/22/2019 14:22 |



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

Project: Environmental
Project Number: D19A013
Project Manager: Jeff Boudreau

Reported:
02/13/2019 15:43

D19A013-01 (SIS-1)
K19A068-01 (Groundwater, Grab)
Collected: 01/16/2019 10:00 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|------|---|------|------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 16.2 | | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 63.5 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.1 | I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |

D19A013-02 (SIS-2)
K19A068-02 (Groundwater, Grab)
Collected: 01/16/2019 4:27 pm

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|------|---|------|------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 9.7 | | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 93.4 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |



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

Project: Environmental
Project Number: D19A013
Project Manager: Jeff Boudreau

Reported:
02/13/2019 15:43

D19A013-03 (SIS-3)
K19A068-03 (Groundwater, Grab)
Collected: 01/16/2019 2:06 pm

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|-------|------|------|------|---|------------|------------|-----------|
| Arsenic | 2.5 U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 9.0 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 66.0 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.5 I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |

D19A013-04 (SIS-4)

K19A068-04 (Groundwater, Grab)
Collected: 01/16/2019 3:33 pm

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|-------|------|------|------|---|------------|------------|-----------|
| Arsenic | 4.2 I | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 12.4 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cadmium | 0.3 U | 0.3 | 1.2 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 97.0 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.1 I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |



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

Project: Environmental
Project Number: D19A013
Project Manager: Jeff Boudreau

Reported:
02/13/2019 15:43

D19A013-05 (LF-1)
K19A068-05 (Groundwater, Grab)
Collected: 01/16/2019 8:03 am

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|--------|------|------|------|---|------------|------------|-----------|
| Arsenic | 2.5 U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 145 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 32.8 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 9.4 I | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |

D19A013-06 (LF-2)

K19A068-06 (Groundwater, Grab)
Collected: 01/17/2019 8:39 am

| Analyte | Result Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|
|---------|-------------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | |
|------------|-------------|------|------|------|---|------------|------------|-----------|
| Arsenic | 5.7 I | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 133 | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.21 I | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 109 | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 3.4 I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.8 I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 14.4 | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 U, J(1) | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |



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

Project: Environmental
Project Number: D19A013
Project Manager: Jeff Boudreau

Reported:
02/13/2019 15:43

D19A013-07 (LF-3)
K19A068-07 (Groundwater, Grab)
Collected: 01/17/2019 10:22 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|------|---|------|------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 76.2 | | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 114 | | 0.01 | 0.04 | mg/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.7 | I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 266 | | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |

D19A013-08 (LF-4)
K19A068-08 (Groundwater, Grab)
Collected: 01/17/2019 11:47 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|------|---|------|------|------|---|------------|------------|-----------|
| Arsenic | 3.0 | I | 2.5 | 10.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Barium | 70.4 | | 0.2 | 0.8 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Calcium | 181 | | 0.02 | 0.08 | mg/L | 2 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Chromium | 1.6 | I | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Molybdenum | 73.1 | | 3.0 | 12.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 01/29/2019 | 01/31/2019 | EPA 200.7 |



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

Project: Environmental
Project Number: D19A013
Project Manager: Jeff Boudreau

Reported:
02/13/2019 15:43

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 B19A181 - EPA 200.7

Blank (B19A181-BLK1)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|--|--|--|------|--|
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | | | | 30.8 | |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | | | | NR | |
| Barium | 0.2U | | 0.2 | 0.8 | ug/L | | | | | NR | |
| Calcium | 0.01 U | | 0.01 | 0.04 | mg/L | | | | | 37.2 | |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | | | | 83.6 | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | | | | 99.3 | |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | | | | NR | |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | | | | NR | |
| Chromium | 1.0U | | 1.0 | 4.0 | ug/L | | | | | 50.0 | |
| Molybdenum | 3.0U | | 3.0 | 12.0 | ug/L | | | | | NR | |

Blank (B19A181-BLK2)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|-----------|--|------|------|------|--|--|--|--|------|--|
| Calcium | 0.01 I, V | | 0.01 | 0.04 | mg/L | | | | | 37.2 | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | | | | 99.3 | |
| Molybdenum | 3.0U | | 3.0 | 12.0 | ug/L | | | | | NR | |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | | | | NR | |
| Chromium | 1.0U | | 1.0 | 4.0 | ug/L | | | | | 50.0 | |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | | | | 83.6 | |
| Barium | 0.2 U | | 0.2 | 0.8 | ug/L | | | | | NR | |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | | | | NR | |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | | | | 30.8 | |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | | | | NR | |

LCS (B19A181-BS1)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|-------|--|
| Cobalt | 97.3 | | | | ug/L | 101 | | 96.3 | 90-110 | 1.47 | |
| Arsenic | 102 | | | | ug/L | 99.3 | | 103 | 90-110 | 0.00 | |
| Lead | 104 | | | | ug/L | 100 | | 104 | 90-110 | 1.37 | |
| Barium | 103 | | | | ug/L | 100 | | 103 | 90-110 | 0.00 | |
| Selenium | 97.3 | | | | ug/L | 99.9 | | 97.4 | 90-110 | 1.54 | |
| Beryllium | 99.9 | | | | ug/L | 99.3 | | 101 | 90-110 | 1.47 | |
| Calcium | 25.0 | | | | mg/L | 24.8 | | 101 | 90-110 | 0.00 | |
| Chromium | 95.6 | | | | ug/L | 100 | | 95.6 | 90-110 | 1.27 | |
| Molybdenum | 102 | | | | ug/L | 100 | | 102 | 90-110 | 1.97 | |
| Cadmium | 102 | | | | ug/L | 100 | | 102 | 90-110 | 0.697 | |

LCS (B19A181-BS2)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|-------|--|
| Molybdenum | 99.2 | | | | ug/L | 100 | | 99.2 | 90-110 | 1.97 | |
| Cobalt | 95.3 | | | | ug/L | 101 | | 94.4 | 90-110 | 1.47 | |
| Chromium | 93.9 | | | | ug/L | 100 | | 93.9 | 90-110 | 1.27 | |
| Cadmium | 101 | | | | ug/L | 100 | | 101 | 90-110 | 0.697 | |
| Beryllium | 102 | | | | ug/L | 99.3 | | 103 | 90-110 | 1.47 | |
| Selenium | 95.2 | | | | ug/L | 99.9 | | 95.3 | 90-110 | 1.54 | |



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

Project: Environmental
Project Number: D19A013
Project Manager: Jeff Boudreau

Reported:
02/13/2019 15:43

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 B19A181 - EPA 200.7 (Continued)

LCS (B19A181-BS2)

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|---------|------|--|--|--|------|------|--|-----|--------|------|--|
| Barium | 103 | | | | ug/L | 100 | | 103 | 90-110 | 0.00 | |
| Arsenic | 102 | | | | ug/L | 99.3 | | 103 | 90-110 | 0.00 | |
| Calcium | 25.0 | | | | mg/L | 24.8 | | 101 | 90-110 | 0.00 | |
| Lead | 102 | | | | ug/L | 100 | | 102 | 90-110 | 1.37 | |

Duplicate (B19A181-DUP1)

Source: K19A068-06

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|------|--|--|------|--|
| Chromium | 3.28 I | | 1.0 | 4.0 | ug/L | | 3.36 | | | 1.70 | |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | ND | | | 7.47 | |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | ND | | | 10.6 | |
| Molybdenum | 14.1 | | 3.0 | 12.0 | ug/L | | 14.4 | | | 1.49 | |
| Cobalt | 1.47 I | | 1.0 | 4.0 | ug/L | | 1.78 | | | 13.5 | |
| Arsenic | 5.85 I | | 2.5 | 10.0 | ug/L | | 5.69 | | | 1.96 | |
| Calcium | 114 | | 0.01 | 0.04 | mg/L | | 109 | | | 3.17 | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | NR | |
| Beryllium | 0.29 I | | 0.10 | 0.40 | ug/L | | 0.21 | | | 23.4 | |
| Barium | 138 | | 0.2 | 0.8 | ug/L | | 133 | | | 2.61 | |

Duplicate (B19A181-DUP2)

Source: K19A067-08

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|------|--|--|-------|--|
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | NR | |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | ND | | | 0.233 | |
| Calcium | 14.7 | | 0.01 | 0.04 | mg/L | | 14.7 | | | 0.00 | |
| Barium | 6.8 | | 0.2 | 0.8 | ug/L | | 6.8 | | | 0.418 | |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | ND | | | NR | |
| Arsenic | 2.72 I | | 2.5 | 10.0 | ug/L | | 2.64 | | | 2.11 | |
| Chromium | 2.09 I | | 1.0 | 4.0 | ug/L | | 1.96 | | | 4.54 | |
| Molybdenum | 3.0 U | | 3.0 | 12.0 | ug/L | | ND | | | NR | |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | ND | | | 171 | |
| Lead | 3.42 I | | 3.0 | 12.0 | ug/L | | ND | | | 30.9 | |

Duplicate (B19A181-DUP3)

Source: K19A070-01

Prepared: 1/29/2019 Analyzed: 1/31/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|------|--|--|-------|--|
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | ND | | | 31.9 | |
| Chromium | 1.83 I | | 1.0 | 4.0 | ug/L | | 1.96 | | | 4.85 | |
| Barium | 26.0 | | 0.2 | 0.8 | ug/L | | 27.1 | | | 2.93 | |
| Arsenic | 3.75 I | | 2.5 | 10.0 | ug/L | | 4.09 | | | 6.13 | |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | ND | | | 8.43 | |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | ND | | | NR | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | 15.1 | |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | ND | | | 20.7 | |
| Molybdenum | 18.3 | | 3.0 | 12.0 | ug/L | | 18.2 | | | 0.387 | |
| Calcium | 67.7 | | 0.01 | 0.04 | mg/L | | 72.0 | | | 4.35 | |



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

Project: Environmental
Project Number: D19A013
Project Manager: Jeff Boudreau

Reported:
02/13/2019 15:43

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 B19A181 - EPA 200.7 (Continued)

| Matrix Spike (B19A181-MS1) | Source: K19A068-06 | | | | | Prepared: 1/29/2019 Analyzed: 1/31/2019 | | | | | |
|----------------------------|--------------------|--|------|------|------|-----------------------------------------|------|-----|--------|--|--|
| Lead | 216 | | 6.0 | 24.0 | ug/L | 200 | ND | 108 | 90-110 | | |
| Chromium | 208 | | 2.0 | 8.0 | ug/L | 200 | 3.36 | 102 | 90-110 | | |
| Barium | 672 | | 0.4 | 1.6 | ug/L | 500 | 133 | 108 | 90-110 | | |
| Beryllium | 219 | | 0.20 | 0.80 | ug/L | 200 | 0.21 | 109 | 90-110 | | |
| Arsenic | 213 | | 5.0 | 20.0 | ug/L | 200 | 5.69 | 104 | 90-110 | | |
| Cobalt | 208 | | 2.0 | 8.0 | ug/L | 200 | 1.78 | 104 | 90-110 | | |
| Cadmium | 53.2 | | 0.6 | 2.4 | ug/L | 50.0 | ND | 106 | 90-110 | | |
| Molybdenum | 553 | | 6.0 | 24.0 | ug/L | 500 | 14.4 | 108 | 90-110 | | |
| Selenium | 58.0 J | | 8.0 | 32.0 | ug/L | 50.0 | ND | 116 | 90-110 | | |
| Calcium | 136 | | 0.02 | 0.08 | mg/L | 25.0 | 109 | 108 | 90-110 | | |

| Matrix Spike (B19A181-MS2) | Source: K19A067-08 | | | | | Prepared: 1/29/2019 Analyzed: 1/31/2019 | | | | | |
|----------------------------|--------------------|--|------|------|------|-----------------------------------------|------|-----|--------|--|--|
| Selenium | 50.8 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 102 | 90-110 | | |
| Chromium | 202 | | 1.0 | 4.0 | ug/L | 200 | 1.96 | 100 | 90-110 | | |
| Cadmium | 52.5 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 105 | 90-110 | | |
| Molybdenum | 531 | | 3.0 | 12.0 | ug/L | 500 | ND | 106 | 90-110 | | |
| Barium | 538 | | 0.2 | 0.8 | ug/L | 500 | 6.8 | 106 | 90-110 | | |
| Calcium | 42.2 | | 0.01 | 0.04 | mg/L | 25.0 | 14.7 | 110 | 90-110 | | |
| Lead | 216 | | 3.0 | 12.0 | ug/L | 200 | ND | 108 | 90-110 | | |
| Beryllium | 222 J | | 0.10 | 0.40 | ug/L | 200 | ND | 111 | 90-110 | | |
| Cobalt | 203 | | 1.0 | 4.0 | ug/L | 200 | ND | 102 | 90-110 | | |
| Arsenic | 209 | | 2.5 | 10.0 | ug/L | 200 | 2.64 | 103 | 90-110 | | |

| Matrix Spike (B19A181-MS3) | Source: K19A070-01 | | | | | Prepared: 1/29/2019 Analyzed: 1/31/2019 | | | | | |
|----------------------------|--------------------|--|------|------|------|-----------------------------------------|------|------|--------|--|--|
| Lead | 2040 | | 30.0 | 120 | ug/L | 2000 | ND | 102 | 90-110 | | |
| Molybdenum | 5100 | | 30.0 | 120 | ug/L | 5000 | 18.2 | 102 | 90-110 | | |
| Cobalt | 1950 | | 10.0 | 40.0 | ug/L | 2000 | ND | 97.5 | 90-110 | | |
| Beryllium | 2130 | | 1.00 | 4.00 | ug/L | 2000 | ND | 106 | 90-110 | | |
| Calcium | 327 | | 0.10 | 0.40 | mg/L | 250 | 72.0 | 102 | 90-110 | | |
| Cadmium | 507 | | 3.0 | 12.0 | ug/L | 500 | ND | 101 | 90-110 | | |
| Chromium | 1900 | | 10.0 | 40.0 | ug/L | 2000 | 1.96 | 95.0 | 90-110 | | |
| Barium | 5110 | | 2.0 | 8.0 | ug/L | 5000 | 27.1 | 102 | 90-110 | | |
| Arsenic | 2040 | | 25.0 | 100 | ug/L | 2000 | 4.09 | 102 | 90-110 | | |
| Selenium | 492 | | 40.0 | 160 | ug/L | 500 | ND | 98.4 | 90-110 | | |



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

Project: Environmental
Project Number: D19A013
Project Manager: Jeff Boudreau

Reported:
02/13/2019 15:43

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. |
| V | Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the blank value was greater than 10% of the associated sample value. |
| 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(1) | Estimated value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A013

SENDING LABORATORY:

Gainesville Regional Utilities
 Deerhaven Generating Station
 10001 NW 13th Street
 Gainesville, FL 32653
 Phone: 352-334-3434
 Fax: 352-334-3149
 Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Kanapaha Laboratory
 3901 SW 63rd BLVD
 Gainesville, FL/USA 32608
 Phone :352-393-6777
 Fax: 352-334-2732

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------|-----------------|---------------------------------|-------------------|
| Sample Name: SIS-1 | | | |
| Sample ID: D19A013-01 | Water | Sampled: 16-Jan-19 10:00 | K19A068-01 |
| K_Barium | 15-Jul-19 10:00 | | |
| K_Cadmium | 15-Jul-19 10:00 | | |
| K_Calcium | 15-Jul-19 10:00 | | |
| K_Chromium | 15-Jul-19 10:00 | | |
| K_Cobalt | 15-Jul-19 10:00 | | |
| K_Lead | 15-Jul-19 10:00 | | |
| K_Molybdenum | 15-Jul-19 10:00 | | |
| K_Selenium | 15-Jul-19 10:00 | | |
| K_Arsenic | 15-Jul-19 10:00 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | |
| Sample Name: SIS-2 | | | |
| Sample ID: D19A013-02 | Water | Sampled: 16-Jan-19 16:27 | K19A068-02 |
| K_Molybdenum | 15-Jul-19 16:27 | | |
| K_Selenium | 15-Jul-19 16:27 | | |
| K_Lead | 15-Jul-19 16:27 | | |
| K_Cobalt | 15-Jul-19 16:27 | | |
| K_Calcium | 15-Jul-19 16:27 | | |
| K_Cadmium | 15-Jul-19 16:27 | | |
| K_Arsenic | 15-Jul-19 16:27 | | |
| K_Barium | 15-Jul-19 16:27 | | |
| K_Chromium | 15-Jul-19 16:27 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | |

| | | | |
|-------------|---------|-------------|----------------|
| | 1-22-19 | | 1-22-19 e 1422 |
| Released By | Date | Received By | Date |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A013

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------|-----------------|---------------------------------|------------|
| Sample Name: SIS-3 | | | |
| Sample ID: D19A013-03 | Water | Sampled: 16-Jan-19 14:06 | K19A068-03 |
| K_Cobalt | 15-Jul-19 14:06 | | |
| K_Selenium | 15-Jul-19 14:06 | | |
| K_Molybdenum | 15-Jul-19 14:06 | | |
| K_Chromium | 15-Jul-19 14:06 | | |
| K_Lead | 15-Jul-19 14:06 | | |
| K_Calcium | 15-Jul-19 14:06 | | |
| K_Cadmium | 15-Jul-19 14:06 | | |
| K_Barium | 15-Jul-19 14:06 | | |
| K_Arsenic | 15-Jul-19 14:06 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | |
| Sample Name: SIS-4 | | | |
| Sample ID: D19A013-04 | Water | Sampled: 16-Jan-19 15:33 | K19A068-04 |
| K_Lead | 15-Jul-19 15:33 | | |
| K_Molybdenum | 15-Jul-19 15:33 | | |
| K_Arsenic | 15-Jul-19 15:33 | | |
| K_Barium | 15-Jul-19 15:33 | | |
| K_Cadmium | 15-Jul-19 15:33 | | |
| K_Calcium | 15-Jul-19 15:33 | | |
| K_Selenium | 15-Jul-19 15:33 | | |
| K_Cobalt | 15-Jul-19 15:33 | | |
| K_Chromium | 15-Jul-19 15:33 | | |
| <i>Containers Supplied:</i> | | | |
| Sample Name: LF-1 | | | |
| Sample ID: D19A013-05 | Water | Sampled: 16-Jan-19 08:03 | K19A068-05 |
| K_Arsenic | 15-Jul-19 08:03 | | |
| K_Barium | 15-Jul-19 08:03 | | |
| K_Beryllium | 15-Jul-19 08:03 | | |
| K_Calcium | 15-Jul-19 08:03 | | |
| K_Chromium | 15-Jul-19 08:03 | | |
| K_Cobalt | 15-Jul-19 08:03 | | |
| K_Molybdenum | 15-Jul-19 08:03 | | |
| K_Selenium | 15-Jul-19 08:03 | | |
| K_Lead | 15-Jul-19 08:03 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | |

| | | | |
|-------------------------|----------------|-------------|-----------------------|
| Released By | Date | Received By | Date |
| <i>Shelley Phillips</i> | <i>1-22-19</i> | <i>S. ~</i> | <i>1-22-19 @ 1422</i> |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A013

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

Sample Name: LF-2

Sample ID: D19A013-06 **Water** **Sampled: 17-Jan-19 08:39**

K19A068-06

- K_Arsenic 16-Jul-19 08:39
- K_Lead 16-Jul-19 08:39
- K_Chromium 16-Jul-19 08:39
- K_Calcium 16-Jul-19 08:39
- K_Barium 16-Jul-19 08:39
- K_Cobalt 16-Jul-19 08:39
- K_Selenium 16-Jul-19 08:39
- K_Molybdenum 16-Jul-19 08:39
- K_Beryllium 16-Jul-19 08:39

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (A)

Sample Name: LF-3

Sample ID: D19A013-07 **Water** **Sampled: 17-Jan-19 10:22**

K19A068-07

- K_Selenium 16-Jul-19 10:22
- K_Cobalt 16-Jul-19 10:22
- K_Chromium 16-Jul-19 10:22
- K_Calcium 16-Jul-19 10:22
- K_Beryllium 16-Jul-19 10:22
- K_Barium 16-Jul-19 10:22
- K_Arsenic 16-Jul-19 10:22
- K_Molybdenum 16-Jul-19 10:22
- K_Lead 16-Jul-19 10:22

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (A)

Sample Name: LF-4

Sample ID: D19A013-08 **Water** **Sampled: 17-Jan-19 11:47**

K19A068-08

- K_Calcium 16-Jul-19 11:47
- K_Beryllium 16-Jul-19 11:47
- K_Barium 16-Jul-19 11:47
- K_Arsenic 16-Jul-19 11:47
- K_Chromium 16-Jul-19 11:47
- K_Molybdenum 16-Jul-19 11:47
- K_Selenium 16-Jul-19 11:47
- K_Cobalt 16-Jul-19 11:47
- K_Lead 16-Jul-19 11:47

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (A)

| | | | |
|-------------------------|----------------|-------------|----------------------|
| <i>Shelley Phillips</i> | <i>1-22-19</i> | <i>Sum</i> | <i>1-22-19 01422</i> |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|

February 06, 2019

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

RE: Project: D19A013
Pace Project No.: 35443926

Dear Mr. Boudreau:

Enclosed are the analytical results for sample(s) received by the laboratory on January 23, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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: D19A013

Pace Project No.: 35443926

Pennsylvania Certification IDs

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
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 #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
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
Maryland Certification: #346
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
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
Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: D19A013

Pace Project No.: 35443926

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: D19A013

Pace Project No.: 35443926

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|------------|--------|----------------|----------------|
| 35443926001 | D19A013-01 | Water | 01/16/19 10:00 | 01/23/19 12:00 |
| 35443926002 | D19A013-02 | Water | 01/16/19 16:27 | 01/23/19 12:00 |
| 35443926003 | D19A013-03 | Water | 01/16/19 14:06 | 01/23/19 12:00 |
| 35443926004 | D19A013-04 | Water | 01/16/19 15:33 | 01/23/19 12:00 |
| 35443926005 | D19A013-05 | Water | 01/16/19 08:03 | 01/23/19 12:00 |
| 35443926006 | D19A013-06 | Water | 01/17/19 08:39 | 01/23/19 12:00 |
| 35443926007 | D19A013-07 | Water | 01/17/19 10:22 | 01/23/19 12:00 |
| 35443926008 | D19A013-08 | Water | 01/17/19 11:47 | 01/23/19 12:00 |
| 35443926009 | D19A013-09 | Water | 01/16/19 11:20 | 01/23/19 12:00 |
| 35443926010 | D19A013-10 | Water | 01/16/19 09:05 | 01/23/19 12:00 |
| 35443926011 | D19A013-11 | Water | 01/18/19 10:16 | 01/23/19 12:00 |
| 35443926012 | D19A013-12 | Water | 01/18/19 13:57 | 01/23/19 12:00 |
| 35443926013 | D19A013-13 | Water | 01/18/19 12:32 | 01/23/19 12:00 |
| 35443926014 | D19A013-14 | Water | 01/17/19 12:40 | 01/23/19 12:00 |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: D19A013
Pace Project No.: 35443926

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|------------|--------------------------|-----------|-------------------|------------|
| 35443926001 | D19A013-01 | EPA 6020B | JMW1 | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| 35443926002 | D19A013-02 | EPA 6020B | JMW1 | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| 35443926003 | D19A013-03 | EPA 6020B | JMW1 | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| 35443926004 | D19A013-04 | EPA 6020B | JMW1 | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| 35443926005 | D19A013-05 | EPA 6020B | JMW1, SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| 35443926006 | D19A013-06 | EPA 6020B | JMW1, SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| 35443926007 | D19A013-07 | EPA 6020B | JMW1, SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| 35443926008 | D19A013-08 | EPA 6020B | JMW1, SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: D19A013
Pace Project No.: 35443926

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|------------|--------------------------|----------|-------------------|------------|
| 35443926009 | D19A013-09 | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | SEW | 3 | PASI-O |
| | | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| 35443926010 | D19A013-10 | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| 35443926011 | D19A013-11 | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| 35443926012 | D19A013-12 | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 6020B | SER | 4 | PASI-A |
| 35443926013 | D19A013-13 | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| 35443926014 | D19A013-14 | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-01 **Lab ID: 35443926001** Collected: 01/16/19 10:00 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 01/26/19 10:00 | 01/29/19 14:59 | 7440-36-0 | |
| Boron | 7.6 I | ug/L | 25.0 | 2.6 | 1 | 01/26/19 10:00 | 01/29/19 14:59 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 01/26/19 10:00 | 01/29/19 14:59 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 01/26/19 10:00 | 01/29/19 14:59 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 4.8 I | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 21:35 | 16887-00-6 | |
| Fluoride | 0.19 | mg/L | 0.050 | 0.034 | 1 | | 01/30/19 21:35 | 16984-48-8 | |
| Sulfate | 2.8 I | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 21:35 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-02 **Lab ID: 35443926002** Collected: 01/16/19 16:27 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.13 I | ug/L | 0.50 | 0.11 | 1 | 01/26/19 10:00 | 01/29/19 15:02 | 7440-36-0 | |
| Boron | 25.0 I | ug/L | 25.0 | 2.6 | 1 | 01/26/19 10:00 | 01/29/19 15:02 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 01/26/19 10:00 | 01/29/19 15:02 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 01/26/19 10:00 | 01/29/19 15:02 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 11.5 | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 21:57 | 16887-00-6 | |
| Fluoride | 0.38 | mg/L | 0.050 | 0.034 | 1 | | 01/30/19 21:57 | 16984-48-8 | |
| Sulfate | 34.8 | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 21:57 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-03 **Lab ID: 35443926003** Collected: 01/16/19 14:06 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.12 I | ug/L | 0.50 | 0.11 | 1 | 01/26/19 10:00 | 01/29/19 15:05 | 7440-36-0 | |
| Boron | 12.6 I | ug/L | 25.0 | 2.6 | 1 | 01/26/19 10:00 | 01/29/19 15:05 | 7440-42-8 | |
| Lithium | 0.97 I | ug/L | 2.5 | 0.42 | 1 | 01/26/19 10:00 | 01/29/19 15:05 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 01/26/19 10:00 | 01/29/19 15:05 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 5.9 | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 22:19 | 16887-00-6 | |
| Fluoride | 0.14 | mg/L | 0.050 | 0.034 | 1 | | 01/30/19 22:19 | 16984-48-8 | |
| Sulfate | 18.0 | mg/L | 5.0 | 2.5 | 1 | | 01/30/19 22:19 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-04 **Lab ID: 35443926004** Collected: 01/16/19 15:33 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.14 I | ug/L | 0.50 | 0.11 | 1 | 01/26/19 10:00 | 01/29/19 15:08 | 7440-36-0 | |
| Boron | 7.7 I | ug/L | 25.0 | 2.6 | 1 | 01/26/19 10:00 | 01/29/19 15:08 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 01/26/19 10:00 | 01/29/19 15:08 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 01/26/19 10:00 | 01/29/19 15:08 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 4.5 I | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 01:21 | 16887-00-6 | |
| Fluoride | 0.18 | mg/L | 0.050 | 0.034 | 1 | | 01/31/19 01:21 | 16984-48-8 | |
| Sulfate | 8.8 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 01:21 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-05 **Lab ID: 35443926005** Collected: 01/16/19 08:03 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|--------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|-----------------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.76 | ug/L | 0.50 | 0.11 | 1 | 02/01/19 04:54 | 02/04/19 18:16 | 7440-36-0 | |
| Boron | 205 | ug/L | 25.0 | 2.6 | 1 | 02/01/19 04:54 | 02/04/19 18:16 | 7440-42-8 | |
| Lithium | 3.4 | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/05/19 00:56 | 7439-93-2 | J(M1), J(R1) |
| Thallium | 0.14 | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/04/19 18:16 | 7440-28-0 | J(M1), J(R1) |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 8.0 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 01:44 | 16887-00-6 | |
| Fluoride | 0.057 | mg/L | 0.050 | 0.034 | 1 | | 01/31/19 01:44 | 16984-48-8 | |
| Sulfate | 35.8 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 01:44 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-06 **Lab ID: 35443926006** Collected: 01/17/19 08:39 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.44 I | ug/L | 0.50 | 0.11 | 1 | 02/01/19 04:54 | 02/04/19 19:08 | 7440-36-0 | |
| Boron | 290 | ug/L | 25.0 | 2.6 | 1 | 02/01/19 04:54 | 02/04/19 19:08 | 7440-42-8 | |
| Lithium | 2.7 | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/05/19 01:14 | 7439-93-2 | |
| Thallium | 0.070 I | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/04/19 19:08 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 35.3 | mg/L | 10.0 | 5.0 | 2 | | 01/31/19 02:06 | 16887-00-6 | |
| Fluoride | 0.25 | mg/L | 0.10 | 0.068 | 2 | | 01/31/19 02:06 | 16984-48-8 | |
| Sulfate | 208 | mg/L | 25.0 | 12.5 | 5 | | 01/31/19 08:23 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-07 **Lab ID: 35443926007** Collected: 01/17/19 10:22 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 1.8 I | ug/L | 2.5 | 0.55 | 5 | 02/01/19 04:54 | 02/04/19 19:22 | 7440-36-0 | |
| Boron | 1810 | ug/L | 125 | 12.8 | 5 | 02/01/19 04:54 | 02/04/19 19:22 | 7440-42-8 | |
| Lithium | 8.9 | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/05/19 01:17 | 7439-93-2 | |
| Thallium | 0.068 I | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/05/19 01:17 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 43.2 | mg/L | 10.0 | 5.0 | 2 | | 01/31/19 08:45 | 16887-00-6 | |
| Fluoride | 0.17 | mg/L | 0.10 | 0.068 | 2 | | 01/31/19 08:45 | 16984-48-8 | |
| Sulfate | 250 | mg/L | 25.0 | 12.5 | 5 | | 01/31/19 02:28 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-08 **Lab ID: 35443926008** Collected: 01/17/19 11:47 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|-------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 6.9 | ug/L | 2.5 | 0.55 | 5 | 02/01/19 04:54 | 02/04/19 20:09 | 7440-36-0 | |
| Boron | 623 | ug/L | 125 | 12.8 | 5 | 02/01/19 04:54 | 02/04/19 20:09 | 7440-42-8 | |
| Lithium | 157 | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/05/19 01:28 | 7439-93-2 | |
| Thallium | 0.32 | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/05/19 01:28 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 18.0 | mg/L | 5.0 | 2.5 | 1 | | 01/31/19 09:07 | 16887-00-6 | |
| Fluoride | 0.15 | mg/L | 0.050 | 0.034 | 1 | | 01/31/19 09:07 | 16984-48-8 | |
| Sulfate | 273 | mg/L | 25.0 | 12.5 | 5 | | 01/31/19 02:50 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-09 **Lab ID: 35443926009** Collected: 01/16/19 11:20 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|------|-------|----|----------------|----------------|-----------|------|
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 02/01/19 04:54 | 02/04/19 20:16 | 7440-36-0 | |
| Boron | 17.2 I | ug/L | 25.0 | 2.6 | 1 | 02/01/19 04:54 | 02/04/19 20:16 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/04/19 20:16 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/04/19 20:16 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-10 **Lab ID: 35443926010** Collected: 01/16/19 09:05 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|-----------------------|----------------|---------------------------------------------------------------|------|-------|----|----------------|----------------|-----------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 02/01/19 04:54 | 02/04/19 20:19 | 7440-36-0 | |
| Boron | 14.1 I | ug/L | 25.0 | 2.6 | 1 | 02/01/19 04:54 | 02/04/19 20:19 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/04/19 20:19 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/04/19 20:19 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-11 **Lab ID: 35443926011** Collected: 01/18/19 10:16 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|------|-------|----|----------------|----------------|-----------|------|
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 02/01/19 04:54 | 02/04/19 20:23 | 7440-36-0 | |
| Boron | 13.0 I | ug/L | 25.0 | 2.6 | 1 | 02/01/19 04:54 | 02/04/19 20:23 | 7440-42-8 | |
| Lithium | 1.3 I | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/04/19 20:23 | 7439-93-2 | |
| Thallium | 0.080 I | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/04/19 20:23 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-12 **Lab ID: 35443926012** Collected: 01/18/19 13:57 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|------|-------|----|----------------|----------------|-----------|------|
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 02/01/19 04:54 | 02/04/19 20:26 | 7440-36-0 | |
| Boron | 13.5 I | ug/L | 25.0 | 2.6 | 1 | 02/01/19 04:54 | 02/04/19 20:26 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/04/19 20:26 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/04/19 20:26 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-13 **Lab ID: 35443926013** Collected: 01/18/19 12:32 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|------|-------|----|----------------|----------------|-----------|------|
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 02/01/19 04:54 | 02/04/19 20:30 | 7440-36-0 | |
| Boron | 270 | ug/L | 25.0 | 2.6 | 1 | 02/01/19 04:54 | 02/04/19 20:30 | 7440-42-8 | |
| Lithium | 0.73 I | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/04/19 20:30 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/04/19 20:30 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-14 **Lab ID: 35443926014** Collected: 01/17/19 12:40 Received: 01/23/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|-----------------------|----------------|---------------------------------------------------------------|------|-------|----|----------------|----------------|-----------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 02/01/19 04:54 | 02/04/19 20:37 | 7440-36-0 | |
| Boron | 2.6 U | ug/L | 25.0 | 2.6 | 1 | 02/01/19 04:54 | 02/04/19 20:37 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 02/01/19 04:54 | 02/04/19 20:37 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 02/01/19 04:54 | 02/04/19 20:37 | 7440-28-0 | |

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QUALITY CONTROL DATA

Project: D19A013
Pace Project No.: 35443926

QC Batch: 454687 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 35443926001, 35443926002, 35443926003, 35443926004

METHOD BLANK: 2483055 Matrix: Water
Associated Lab Samples: 35443926001, 35443926002, 35443926003, 35443926004

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Antimony | ug/L | 0.11 U | 0.50 | 0.11 | 01/28/19 20:24 | |
| Boron | ug/L | 2.6 U | 25.0 | 2.6 | 01/28/19 20:24 | |
| Lithium | ug/L | 0.42 U | 2.5 | 0.42 | 01/28/19 20:24 | |
| Thallium | ug/L | 0.060 U | 0.10 | 0.060 | 01/28/19 20:24 | |

LABORATORY CONTROL SAMPLE: 2483056

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | ug/L | 50 | 47.4 | 95 | 80-120 | |
| Boron | ug/L | 50 | 47.3 | 95 | 80-120 | |
| Lithium | ug/L | 50 | 50.5 | 101 | 80-120 | |
| Thallium | ug/L | 10 | 9.7 | 97 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2483057 2483058

| Parameter | Units | 92415379001 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|----------------|-----------------|-----------|----------|-----------|--------------|-----|---------|-------|
| | | | Spike Conc. | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | |
| Antimony | ug/L | ND | 50 | 50 | 36.4 | 36.2 | 73 | 72 | 75-125 | 0 | 20 | J(M1) |
| Boron | ug/L | 28.3 | 50 | 50 | 84.1 | 84.2 | 112 | 112 | 75-125 | 0 | 20 | |
| Lithium | ug/L | ND | 50 | 50 | 56.1 | 56.0 | 107 | 107 | 75-125 | 0 | 20 | |
| Thallium | ug/L | ND | 10 | 10 | 9.9 | 9.9 | 99 | 99 | 75-125 | 0 | 20 | |

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QUALITY CONTROL DATA

Project: D19A013
Pace Project No.: 35443926

QC Batch: 455829 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 35443926005, 35443926006, 35443926007, 35443926008, 35443926009, 35443926010, 35443926011, 35443926012, 35443926013, 35443926014

METHOD BLANK: 2487531 Matrix: Water
Associated Lab Samples: 35443926005, 35443926006, 35443926007, 35443926008, 35443926009, 35443926010, 35443926011, 35443926012, 35443926013, 35443926014

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Antimony | ug/L | 0.11 U | 0.50 | 0.11 | 02/04/19 18:09 | |
| Boron | ug/L | 2.6 U | 25.0 | 2.6 | 02/04/19 18:09 | |
| Lithium | ug/L | 0.42 U | 2.5 | 0.42 | 02/05/19 00:49 | |
| Thallium | ug/L | 0.060 U | 0.10 | 0.060 | 02/04/19 18:09 | |

LABORATORY CONTROL SAMPLE: 2487532

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | ug/L | 50 | 51.0 | 102 | 80-120 | |
| Boron | ug/L | 50 | 45.5 | 91 | 80-120 | |
| Lithium | ug/L | 50 | 48.7 | 97 | 80-120 | |
| Thallium | ug/L | 10 | 9.9 | 99 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2487533 2487534

| Parameter | Units | 35443926005 | | 2487534 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
|-----------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|--------|---------|------|--------------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | | |
| Antimony | ug/L | 0.76 | 50 | 50 | 52.9 | 52.4 | 104 | 103 | 75-125 | 1 | 20 | |
| Boron | ug/L | 205 | 50 | 50 | 243 | 244 | 78 | 78 | 75-125 | 0 | 20 | |
| Lithium | ug/L | 3.4 | 50 | 50 | 49.7 | 19.1 | 93 | 31 | 75-125 | 89 | 20 | J(M1), J(R1) |
| Thallium | ug/L | 0.14 | 10 | 10 | 3.4 | 10.3 | 33 | 102 | 75-125 | 101 | 20 | J(M1), J(R1) |

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QUALITY CONTROL DATA

Project: D19A013
Pace Project No.: 35443926

QC Batch: 511768 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35443926001, 35443926002, 35443926003

METHOD BLANK: 2763262 Matrix: Water
Associated Lab Samples: 35443926001, 35443926002, 35443926003

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 01/30/19 12:25 | |
| Fluoride | mg/L | 0.034 U | 0.050 | 0.034 | 01/30/19 12:25 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 01/30/19 12:25 | |

LABORATORY CONTROL SAMPLE: 2763263

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 48.9 | 98 | 90-110 | |
| Fluoride | mg/L | 5 | 5.2 | 103 | 90-110 | |
| Sulfate | mg/L | 50 | 49.6 | 99 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2763366 2763367

| Parameter | Units | 35444699008 | | 2763367 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|----------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Chloride | mg/L | 170 | 100 | 294 | 300 | 124 | 130 | 90-110 | 2 | 20 | J(M1), L |
| Fluoride | mg/L | 0.16 | 10 | 10.1 | 10.3 | 99 | 101 | 90-110 | 2 | 20 | |
| Sulfate | mg/L | 27.1 | 100 | 129 | 131 | 101 | 104 | 90-110 | 2 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2763368 2763369

| Parameter | Units | 2094628001 | | 2763369 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Chloride | mg/L | ND | 50 | 51.0 | 51.3 | 96 | 97 | 90-110 | 0 | 20 | |
| Fluoride | mg/L | ND | 5 | 5.1 | 5.2 | 103 | 103 | 90-110 | 0 | 20 | |
| Sulfate | mg/L | ND | 50 | 54.5 | 54.7 | 99 | 100 | 90-110 | 0 | 20 | |

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QUALITY CONTROL DATA

Project: D19A013
Pace Project No.: 35443926

QC Batch: 511820 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35443926004, 35443926005, 35443926006, 35443926007, 35443926008

METHOD BLANK: 2763426 Matrix: Water
Associated Lab Samples: 35443926004, 35443926005, 35443926006, 35443926007, 35443926008

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 01/30/19 23:31 | |
| Fluoride | mg/L | 0.034 U | 0.050 | 0.034 | 01/30/19 23:31 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 01/30/19 23:31 | |

LABORATORY CONTROL SAMPLE: 2763427

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 48.5 | 97 | 90-110 | |
| Fluoride | mg/L | 5 | 5.0 | 100 | 90-110 | |
| Sulfate | mg/L | 50 | 49.9 | 100 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2763668 2763669

| Parameter | Units | 12121059001 Result | MS | | MSD | | MS | | MSD | | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|--------|-------|-------|--------|---|--------------|-----|---------|------|
| | | | Spike Conc. | Spike Conc. | Result | Result | % Rec | % Rec | | | | | | |
| Chloride | mg/L | ND | 50 | 50 | 51.5 | 52.8 | 96 | 98 | 90-110 | 2 | 20 | | | |
| Fluoride | mg/L | 0.15 | 5 | 5 | 5.1 | 5.3 | 100 | 102 | 90-110 | 2 | 20 | | | |
| Sulfate | mg/L | 7.8 | 50 | 50 | 58.4 | 59.7 | 101 | 104 | 90-110 | 2 | 20 | | | |

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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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-01 **Lab ID: 35443926001** Collected: 01/16/19 10:00 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.851U ± 0.511 (0.851) C:NA T:91% | pCi/L | 02/04/19 11:30 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.909U ± 0.417 (0.909) C:72% T:85% | pCi/L | 01/31/19 12:38 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.76U ± 0.928 (1.76) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-02 **Lab ID: 35443926002** Collected: 01/16/19 16:27 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.991U ± 0.576 (0.991) C:NA T:82% | pCi/L | 02/04/19 11:30 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.909U ± 0.379 (0.909) C:71% T:83% | pCi/L | 01/31/19 12:38 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.90U ± 0.955 (1.90) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-03 **Lab ID: 35443926003** Collected: 01/16/19 14:06 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.842U ± 0.436 (0.842) C:NA T:92% | pCi/L | 02/04/19 11:30 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.758U ± 0.366 (0.758) C:74% T:98% | pCi/L | 01/31/19 12:38 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.60U ± 0.802 (1.60) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-04 **Lab ID: 35443926004** Collected: 01/16/19 15:33 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.483U ± 0.316 (0.483) C:NA T:89% | pCi/L | 02/04/19 11:30 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.927U ± 0.464 (0.927) C:72% T:87% | pCi/L | 01/31/19 12:38 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.41U ± 0.780 (1.41) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-05 **Lab ID: 35443926005** Collected: 01/16/19 08:03 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.52 ± 0.644 (0.179) C:NA T:86% | pCi/L | 02/04/19 11:17 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.740U ± 0.323 (0.740) C:70% T:96% | pCi/L | 01/31/19 12:37 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.58 ± 0.967 (0.919) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-06 **Lab ID: 35443926006** Collected: 01/17/19 08:39 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|---------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.73 ± 0.821 (0.812) C:NA T:78% | pCi/L | 02/04/19 11:30 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.01U ± 0.534 (1.01) C:69% T:68% | pCi/L | 01/31/19 12:38 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.53 ± 1.36 (1.82) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013
Pace Project No.: 35443926

Sample: D19A013-07 **Lab ID: 35443926007** Collected: 01/17/19 10:22 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.80 ± 0.748 (0.510) C:NA T:83% | pCi/L | 02/04/19 11:30 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.772U ± 0.408 (0.772) C:69% T:92% | pCi/L | 01/31/19 12:39 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.43 ± 1.16 (1.28) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-08 **Lab ID: 35443926008** Collected: 01/17/19 11:47 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.955U ± 0.627 (0.955) C:NA T:79% | pCi/L | 02/04/19 11:30 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.02 ± 0.483 (0.816) C:70% T:84% | pCi/L | 01/31/19 12:39 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.77U ± 1.11 (1.77) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-09 **Lab ID: 35443926009** Collected: 01/16/19 11:20 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.821U ± 0.524 (0.821) C:NA T:90% | pCi/L | 02/04/19 11:30 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.857U ± 0.406 (0.857) C:71% T:89% | pCi/L | 01/31/19 12:38 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.68U ± 0.930 (1.68) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-10 **Lab ID: 35443926010** Collected: 01/16/19 09:05 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.894U ± 0.483 (0.894) C:NA T:86% | pCi/L | 02/04/19 11:17 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.903U ± 0.459 (0.903) C:69% T:88% | pCi/L | 01/31/19 12:38 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.80U ± 0.942 (1.80) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-11 **Lab ID: 35443926011** Collected: 01/18/19 10:16 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.08 ± 0.543 (0.443) C:NA T:96% | pCi/L | 02/04/19 11:44 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.838U ± 0.403 (0.838) C:74% T:70% | pCi/L | 01/31/19 12:39 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.44 ± 0.946 (1.28) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-12 **Lab ID: 35443926012** Collected: 01/18/19 13:57 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.616U ± 0.392 (0.616) C:NA T:83% | pCi/L | 02/04/19 11:44 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.748U ± 0.396 (0.748) C:76% T:83% | pCi/L | 01/31/19 12:40 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.36U ± 0.788 (1.36) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-13 **Lab ID: 35443926013** Collected: 01/18/19 12:32 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.866U ± 0.467 (0.866) C:NA T:94% | pCi/L | 02/04/19 11:44 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.723U ± 0.367 (0.723) C:74% T:95% | pCi/L | 01/31/19 12:39 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.59U ± 0.834 (1.59) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

Sample: D19A013-14 **Lab ID: 35443926014** Collected: 01/17/19 12:40 Received: 01/23/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.608 ± 0.445 (0.497) C:NA T:86% | pCi/L | 02/04/19 11:44 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.728U ± 0.296 (0.728) C:72% T:88% | pCi/L | 01/31/19 12:39 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.23U ± 0.741 (1.23) | pCi/L | 02/04/19 14:00 | 7440-14-4 | |

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QUALITY CONTROL - RADIOCHEMISTRY

Project: D19A013
Pace Project No.: 35443926

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|
| QC Batch: | 328211 | Analysis Method: | EPA 904.0 |
| QC Batch Method: | EPA 904.0 | Analysis Description: | 904.0 Radium 228 |
| Associated Lab Samples: | 35443926001, 35443926002, 35443926003, 35443926004, 35443926005, 35443926006, 35443926007, 35443926008, 35443926009, 35443926010, 35443926011, 35443926012, 35443926013, 35443926014 | | |

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|
| METHOD BLANK: | 1597846 | Matrix: | Water |
| Associated Lab Samples: | 35443926001, 35443926002, 35443926003, 35443926004, 35443926005, 35443926006, 35443926007, 35443926008, 35443926009, 35443926010, 35443926011, 35443926012, 35443926013, 35443926014 | | |

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.101 ± 0.333 (0.754) C:72% T:86% | pCi/L | 01/31/19 12:36 | |

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QUALITY CONTROL - RADIOCHEMISTRY

Project: D19A013

Pace Project No.: 35443926

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|
| QC Batch: | 328206 | Analysis Method: | EPA 903.1 |
| QC Batch Method: | EPA 903.1 | Analysis Description: | 903.1 Radium-226 |
| Associated Lab Samples: | 35443926001, 35443926002, 35443926003, 35443926004, 35443926005, 35443926006, 35443926007, 35443926008, 35443926009, 35443926010, 35443926011, 35443926012, 35443926013, 35443926014 | | |

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|
| METHOD BLANK: | 1597841 | Matrix: | Water |
| Associated Lab Samples: | 35443926001, 35443926002, 35443926003, 35443926004, 35443926005, 35443926006, 35443926007, 35443926008, 35443926009, 35443926010, 35443926011, 35443926012, 35443926013, 35443926014 | | |

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|----------------------------------|-------|----------------|------------|
| Radium-226 | 0.458 ± 0.428 (0.607) C:NA T:92% | pCi/L | 02/04/19 11:17 | |

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QUALIFIERS

Project: D19A013
Pace Project No.: 35443926

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.
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.

LABORATORIES

PASI-A Pace Analytical Services - Asheville
PASI-O Pace Analytical Services - Ormond Beach
PASI-PA Pace Analytical Services - Greensburg

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.
J(R1) Estimated Value. RPD value was outside control limits.
L Off-scale high. Actual value is known to be greater than value given.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D19A013

Pace Project No.: 35443926

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|------------|--------------------------|----------|-------------------|------------------|
| 35443926001 | D19A013-01 | EPA 3010A | 454687 | EPA 6020B | 454711 |
| 35443926002 | D19A013-02 | EPA 3010A | 454687 | EPA 6020B | 454711 |
| 35443926003 | D19A013-03 | EPA 3010A | 454687 | EPA 6020B | 454711 |
| 35443926004 | D19A013-04 | EPA 3010A | 454687 | EPA 6020B | 454711 |
| 35443926005 | D19A013-05 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926006 | D19A013-06 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926007 | D19A013-07 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926008 | D19A013-08 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926009 | D19A013-09 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926010 | D19A013-10 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926011 | D19A013-11 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926012 | D19A013-12 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926013 | D19A013-13 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926014 | D19A013-14 | EPA 3010A | 455829 | EPA 6020B | 455849 |
| 35443926001 | D19A013-01 | EPA 903.1 | 328206 | | |
| 35443926002 | D19A013-02 | EPA 903.1 | 328206 | | |
| 35443926003 | D19A013-03 | EPA 903.1 | 328206 | | |
| 35443926004 | D19A013-04 | EPA 903.1 | 328206 | | |
| 35443926005 | D19A013-05 | EPA 903.1 | 328206 | | |
| 35443926006 | D19A013-06 | EPA 903.1 | 328206 | | |
| 35443926007 | D19A013-07 | EPA 903.1 | 328206 | | |
| 35443926008 | D19A013-08 | EPA 903.1 | 328206 | | |
| 35443926009 | D19A013-09 | EPA 903.1 | 328206 | | |
| 35443926010 | D19A013-10 | EPA 903.1 | 328206 | | |
| 35443926011 | D19A013-11 | EPA 903.1 | 328206 | | |
| 35443926012 | D19A013-12 | EPA 903.1 | 328206 | | |
| 35443926013 | D19A013-13 | EPA 903.1 | 328206 | | |
| 35443926014 | D19A013-14 | EPA 903.1 | 328206 | | |
| 35443926001 | D19A013-01 | EPA 904.0 | 328211 | | |
| 35443926002 | D19A013-02 | EPA 904.0 | 328211 | | |
| 35443926003 | D19A013-03 | EPA 904.0 | 328211 | | |
| 35443926004 | D19A013-04 | EPA 904.0 | 328211 | | |
| 35443926005 | D19A013-05 | EPA 904.0 | 328211 | | |
| 35443926006 | D19A013-06 | EPA 904.0 | 328211 | | |
| 35443926007 | D19A013-07 | EPA 904.0 | 328211 | | |
| 35443926008 | D19A013-08 | EPA 904.0 | 328211 | | |
| 35443926009 | D19A013-09 | EPA 904.0 | 328211 | | |
| 35443926010 | D19A013-10 | EPA 904.0 | 328211 | | |
| 35443926011 | D19A013-11 | EPA 904.0 | 328211 | | |
| 35443926012 | D19A013-12 | EPA 904.0 | 328211 | | |
| 35443926013 | D19A013-13 | EPA 904.0 | 328211 | | |
| 35443926014 | D19A013-14 | EPA 904.0 | 328211 | | |
| 35443926001 | D19A013-01 | Total Radium Calculation | 328979 | | |
| 35443926002 | D19A013-02 | Total Radium Calculation | 328979 | | |
| 35443926003 | D19A013-03 | Total Radium Calculation | 328979 | | |
| 35443926004 | D19A013-04 | Total Radium Calculation | 328979 | | |
| 35443926005 | D19A013-05 | Total Radium Calculation | 328979 | | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D19A013

Pace Project No.: 35443926

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|------------|--------------------------|----------|-------------------|------------------|
| 35443926006 | D19A013-06 | Total Radium Calculation | 328979 | | |
| 35443926007 | D19A013-07 | Total Radium Calculation | 328979 | | |
| 35443926008 | D19A013-08 | Total Radium Calculation | 328979 | | |
| 35443926009 | D19A013-09 | Total Radium Calculation | 328979 | | |
| 35443926010 | D19A013-10 | Total Radium Calculation | 328979 | | |
| 35443926011 | D19A013-11 | Total Radium Calculation | 328979 | | |
| 35443926012 | D19A013-12 | Total Radium Calculation | 328979 | | |
| 35443926013 | D19A013-13 | Total Radium Calculation | 328979 | | |
| 35443926014 | D19A013-14 | Total Radium Calculation | 328979 | | |
| 35443926001 | D19A013-01 | EPA 300.0 | 511768 | | |
| 35443926002 | D19A013-02 | EPA 300.0 | 511768 | | |
| 35443926003 | D19A013-03 | EPA 300.0 | 511768 | | |
| 35443926004 | D19A013-04 | EPA 300.0 | 511820 | | |
| 35443926005 | D19A013-05 | EPA 300.0 | 511820 | | |
| 35443926006 | D19A013-06 | EPA 300.0 | 511820 | | |
| 35443926007 | D19A013-07 | EPA 300.0 | 511820 | | |
| 35443926008 | D19A013-08 | EPA 300.0 | 511820 | | |

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER
Deerhaven Generating Station
D19A013

WO# : 35443926



35443926

SENDING LABORATORY:

Gainesville Regional Utilities
 Deerhaven Generating Station
 10001 NW 13th Street
 Gainesville, FL 32653
 Phone: 352-334-3434
 Fax: 352-334-3149
 Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Pace Analytical
 8 East Tower Circle
 Ormond Beach, FL 32174
 Phone : (386) 672-5668
 Fax: (386) 673-4001

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------------|-----------------|---------------------------------|----------|
| Sample Name: SIS-1 | | | |
| Sample ID: D19A013-01 | Water | Sampled: 16-Jan-19 10:00 | |
| D_Anions - Fluoride | 13-Feb-19 10:00 | | |
| D_Anions - Sulfates | 13-Feb-19 10:00 | | |
| D_Antimony by 6020 | 15-Jul-19 10:00 | | |
| D_Boron by 6020 | 15-Jul-19 10:00 | | |
| D_Lithium by 6020 | 15-Jul-19 10:00 | | |
| D_Radium226+228_Combined | 11-Jul-19 10:00 | | |
| D_Thallium by 6020 | 15-Jul-19 10:00 | | |
| D_Anions - Chlorides | 13-Feb-19 10:00 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: SIS-2 | | | |
| Sample ID: D19A013-02 | Water | Sampled: 16-Jan-19 16:27 | |
| D_Anions - Fluoride | 13-Feb-19 16:27 | | |
| D_Thallium by 6020 | 15-Jul-19 16:27 | | |
| D_Radium226+228_Combined | 11-Jul-19 16:27 | | |
| D_Lithium by 6020 | 15-Jul-19 16:27 | | |
| D_Boron by 6020 | 15-Jul-19 16:27 | | |
| D_Anions - Sulfates | 13-Feb-19 16:27 | | |
| D_Anions - Chlorides | 13-Feb-19 16:27 | | |
| D_Antimony by 6020 | 15-Jul-19 16:27 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |

Released By: *Shelby Phillips* Date: *1-22-19* via FedEx
 Received By: *AS/pace* Date: *1/23/19* *nee*
 Released By: _____ Date: _____ Received By: _____ Date: _____
2019 1/23/19



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A013

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

Sample Name: LF-2

Sample ID: D19A013-06 **Water** **Sampled: 17-Jan-19 08:39**

| | |
|--------------------------|-----------------|
| D_Thallium by 6020 | 16-Jul-19 08:39 |
| D_Anions - Chlorides | 14-Feb-19 08:39 |
| D_Anions - Fluoride | 14-Feb-19 08:39 |
| D_Anions - Sulfates | 14-Feb-19 08:39 |
| D_Antimony by 6020 | 16-Jul-19 08:39 |
| D_Boron by 6020 | 16-Jul-19 08:39 |
| D_Lithium by 6020 | 16-Jul-19 08:39 |
| D_Radium226+228_Combined | 12-Jul-19 08:39 |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 250mL extra (B)
 D_HDPE, Chill @<6*C - 250mL (C)
 D_HDPE, HNO3 pH<2 - 2000mL (D)

Sample Name: LF-3

Sample ID: D19A013-07 **Water** **Sampled: 17-Jan-19 10:22**

| | |
|--------------------------|-----------------|
| D_Boron by 6020 | 16-Jul-19 10:22 |
| D_Antimony by 6020 | 16-Jul-19 10:22 |
| D_Radium226+228_Combined | 12-Jul-19 10:22 |
| D_Anions - Chlorides | 14-Feb-19 10:22 |
| D_Anions - Sulfates | 14-Feb-19 10:22 |
| D_Anions - Fluoride | 14-Feb-19 10:22 |
| D_Thallium by 6020 | 16-Jul-19 10:22 |
| D_Lithium by 6020 | 16-Jul-19 10:22 |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 250mL extra (B)
 D_HDPE, Chill @<6*C - 250mL (C)
 D_HDPE, HNO3 pH<2 - 2000mL (D)

Sample Name: LF-4

Sample ID: D19A013-08 **Water** **Sampled: 17-Jan-19 11:47**

| | |
|--------------------------|-----------------|
| D_Radium226+228_Combined | 12-Jul-19 11:47 |
| D_Anions - Sulfates | 14-Feb-19 11:47 |
| D_Lithium by 6020 | 16-Jul-19 11:47 |
| D_Boron by 6020 | 16-Jul-19 11:47 |
| D_Anions - Chlorides | 14-Feb-19 11:47 |
| D_Thallium by 6020 | 16-Jul-19 11:47 |
| D_Antimony by 6020 | 16-Jul-19 11:47 |
| D_Anions - Fluoride | 14-Feb-19 11:47 |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 250mL extra (B)
 D_HDPE, Chill @<6*C - 250mL (C)
 D_HDPE, HNO3 pH<2 - 2000mL (D)

| | | | |
|-------------------------|----------------|--------------|----------------|
| Released By | Date | Received By | Date |
| <i>Shelley Phillips</i> | <i>1-22-19</i> | <i>AS/MC</i> | <i>1/23/19</i> |

| | | | |
|-------------|------|-------------|-------------------|
| Released By | Date | Received By | Date |
| | | | <i>2019 T-338</i> |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19A013

| Analysis | Expires | Laboratory ID | Comments |
|---------------------------------------|-----------------|---------------------------------|----------|
| Sample Name: MWC-11-4 (R11T4B) | | | |
| Sample ID: D19A013-13 | Water | Sampled: 18-Jan-19 12:32 | |
| D_Antimony by 6020 | 17-Jul-19 12:32 | | |
| D_Boron by 6020 | 17-Jul-19 12:32 | | |
| D_Lithium by 6020 | 17-Jul-19 12:32 | | |
| D_Thallium by 6020 | 17-Jul-19 12:32 | | |
| D_Radium226+228_Combined | 13-Jul-19 12:32 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: EBLANK | | | |
| Sample ID: D19A013-14 | Water | Sampled: 17-Jan-19 12:40 | |
| D_Radium226+228_Combined | 12-Jul-19 12:40 | | |
| D_Lithium by 6020 | 16-Jul-19 12:40 | | |
| D_Thallium by 6020 | 16-Jul-19 12:40 | | |
| D_Antimony by 6020 | 16-Jul-19 12:40 | | |
| D_Boron by 6020 | 16-Jul-19 12:40 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |

Released By: Shelby Phillips Date: 1-22-19 ^{via FedEx}
 Received By: AS / Mail Date: 1/23/19 1200
 Released By: _____ Date: _____ Received By: _____ Date: 2-9-19 1338

WO# : 35443926 Form (SCUR)

Project PM: JSB Due Date: 02/08/19
 Project Manager: CLIENT: DEELAB
 Client: AD

Date and Initials of person:
 Examining contents: _____
 Label: _____
 Deliver: JRA
 pH: _____

Thermometer Used: T338 Date: 01/23/19 Time: 1200 Initials: JRA

State of Origin: _____ For WV projects, all containers verified to ≤6 °C

- | | |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Cooler #1 Temp.°C <u>1.5</u> (Visual) <u>7.2</u> (Correction Factor) <u>1.7</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #2 Temp.°C <u>20.7</u> (Visual) <u>7.2</u> (Correction Factor) <u>20.9</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #3 Temp.°C <u>19.3</u> (Visual) <u>7.2</u> (Correction Factor) <u>19.5</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #4 Temp.°C <u>18.4</u> (Visual) <u>7.2</u> (Correction Factor) <u>18.4</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #5 Temp.°C <u>19.1</u> (Visual) <u>7.2</u> (Correction Factor) <u>19.3</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #6 Temp.°C _____ (Visual) _____ (Correction Factor) _____ (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |

- Courier: Fed Ex 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 # 8127 8324 (8321 - 8332 - 8343 - 8310), 839 3249 9423

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Ice: Wet Blue Dry 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 | Preservation Information: Preservative: _____ Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____ |
| Chain of Custody Filled Out | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| 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 type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | |
| Sufficient Volume | <input checked="" 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Sample Labels match COC (sample IDs & 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Headspace in VOA 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 | |

Client Notification/ Resolution: Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments): _____

January 31, 2019

Jim Wally
Environmental Engineer
Innovative Waste Consulting Services, LLC
3720 NW 43rd St. Suite 103
Gainesville, Florida 32606

Dear Jim Wally,

Enclosed are the TSS and TDS results for the 1Q19 CCR Groundwater samples. The results relate only to the samples included in these reports. Results reported herein conform to the most current, applicable TNI/NELAC Standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report. All data is subject to a degree of uncertainty. Deerhaven Laboratory uncertainty is based upon LCS quality control statistics.

Sincerely,



Jeffery Boudreau
Laboratory Directory
Deerhaven Generating Station
10001 NW 13th Street
Gainesville, FL 32653
(352) 393-6346
boudreaujp@gru.com

1Q19 GROUNDWATER CCR TSS REPORT

| Sample ID | ID | TSS, Final Result | MDL | PQL | QUAL |
|------------|--------|-------------------|------|------|------|
| | | mg/L | mg/L | mg/L | |
| BLK1 | BLANK | 1.0 | 1.0 | 4.0 | U |
| SRM1 | SRM | 69.6 | 1.0 | 4.0 | |
| D19A012-04 | R4T5 | 2.0 | 1.0 | 4.0 | I |
| D19A012-06 | R6T4 | 1.0 | 1.0 | 4.0 | U |
| D19A013-01 | SIS-1 | 1.0 | 1.0 | 4.0 | U |
| D19A013-02 | SIS-2 | 4.4 | 1.0 | 4.0 | |
| D19A013-03 | SIS-3 | 1.0 | 1.0 | 4.0 | U |
| D19A013-04 | SIS-4 | 1.0 | 1.0 | 4.0 | U |
| D19A013-05 | LF-1 | 1.0 | 1.0 | 4.0 | U |
| D19A013-06 | LF-2 | 1.3 | 1.0 | 4.0 | I |
| D19A013-07 | LF-3 | 1.0 | 1.0 | 4.0 | U |
| D19A013-08 | LF-4 | 1.0 | 1.0 | 4.0 | U |
| D19A012-10 | R9T5 | 1.0 | 1.0 | 4.0 | U |
| DUP1 | DUP | 1.0 | 1.0 | 4.0 | U |
| D19A012-14 | EBLANK | 1.0 | 1.0 | 4.0 | U |

DUP 1: D19A012-10

| | | |
|------------------|-------|-------------|
| SRM TV, mg/L | 75.1 | |
| SRM, mg/L | 69.6 | |
| % Recovery | 92.68 | % Range |
| Low Range, mg/L | 60.9 | 81.0918775 |
| High Range, mg/L | 83.9 | 111.7177097 |

| | |
|-----------|---|
| Sample | 1 |
| Duplicate | 1 |
| %RPD | 0 |

1Q19 CCR GROUNDWATER REPORT

1Q19 GROUNDWATER TDS REPORT

| Sample ID | ID | TDS, Final Result | MDL | PQL | QUAL |
|------------|--------|-------------------|------|------|------|
| | | mg/L | mg/L | mg/L | |
| BLK2 | BLANK | 10 | 10 | 40 | U |
| DA91506 | SRM | 305 | 10 | 40 | |
| D19A013-06 | LF-2 | 639 | 10 | 40 | |
| D19A013-07 | LF-3 | 840 | 10 | 40 | |
| D19A013-08 | LF-4 | 793 | 10 | 40 | |
| D19A012-06 | R6T4 | 210 | 10 | 40 | |
| D19A012-04 | R4T5 | 524 | 10 | 40 | |
| D19A012-14 | EBLANK | 10 | 10 | 40 | U |
| D19A012-07 | R6T8 | 221 | 10 | 40 | |
| D19A012-11 | R10T8 | 79 | 10 | 40 | |
| D19A012-12 | R11T4 | 167 | 10 | 40 | |
| DUP2 | DUP | 162 | 10 | 40 | |
| D19A012-13 | DEEP | 286 | 10 | 40 | |
| D19A013-01 | SIS-1 | 260 | 10 | 40 | |
| DUP1 | DUP | 256 | 10 | 40 | |
| D19A013-02 | SIS-2 | 410 | 10 | 40 | |
| D19A013-03 | SIS-3 | 334 | 10 | 40 | |
| D19A013-04 | SIS-4 | 390 | 10 | 40 | |
| D19A013-05 | LF-1 | 145 | 10 | 40 | |

DUP 1: D19A013-01

| | | |
|------------------|-------|-------------|
| SRM TV, mg/L | 259 | |
| SRM, mg/L | 248 | |
| % Recovery | 95.75 | % Range |
| Low Range, mg/L | 214 | 82.62548263 |
| High Range, mg/L | 304 | 117.3745174 |

| | |
|-----------|----------|
| Sample | 260 |
| Duplicate | 256 |
| %RPD | 1.550388 |

DUP2: D19A012-12

| | | |
|------------------|--------|-------------|
| SRM TV, mg/L | 304 | |
| SRM, mg/L | 305 | |
| % Recovery | 100.33 | % Range |
| Low Range, mg/L | 259 | 85.19736842 |
| High Range, mg/L | 349 | 114.8026316 |

| | |
|-----------|----------|
| Sample | 167 |
| Duplicate | 162 |
| %RPD | 3.039514 |

1Q19 CCR GROUNDWATER REPORT

Qualifier Description

- U Compound was analyzed for but not detected
- I The reported value is between the laboratory MDL and the laboratory PQL

June 01, 2019

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

RE: Project: D19E005
Pace Project No.: 35468706

Dear Mr. Boudreau:

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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: D19E005

Pace Project No.: 35468706

Pennsylvania Certification IDs

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

Guam Certification

Florida: Cert E871149 SEKS WET

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 #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

Arizona Certification# AZ0819

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

Maryland Certification: #346

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

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

Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: D19E005
Pace Project No.: 35468706

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: D19E005
Pace Project No.: 35468706

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|------------|--------|----------------|----------------|
| 35468706001 | D19E005-01 | Water | 05/09/19 08:30 | 05/14/19 10:35 |
| 35468706002 | D19E005-02 | Water | 05/09/19 12:31 | 05/14/19 10:35 |
| 35468706003 | D19E005-03 | Water | 05/09/19 11:00 | 05/14/19 10:35 |
| 35468706004 | D19E005-04 | Water | 05/09/19 09:45 | 05/14/19 10:35 |
| 35468706005 | D19E005-05 | Water | 05/08/19 09:24 | 05/14/19 10:35 |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: D19E005
Pace Project No.: 35468706

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|------------|--------------------------|----------|-------------------|------------|
| 35468706001 | D19E005-01 | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35468706002 | D19E005-02 | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35468706003 | D19E005-03 | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35468706004 | D19E005-04 | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35468706005 | D19E005-05 | EPA 6020B | SER | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-01 **Lab ID: 35468706001** Collected: 05/09/19 08:30 Received: 05/14/19 10:35 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.18 I | ug/L | 0.50 | 0.11 | 1 | 05/23/19 18:32 | 05/25/19 10:24 | 7440-36-0 | |
| Boron | 185 | ug/L | 125 | 12.8 | 5 | 05/23/19 18:32 | 05/25/19 02:46 | 7440-42-8 | |
| Lithium | 2.5 I | ug/L | 2.5 | 0.42 | 1 | 05/23/19 18:32 | 05/25/19 10:24 | 7439-93-2 | |
| Thallium | 0.081 I | ug/L | 0.10 | 0.060 | 1 | 05/23/19 18:32 | 05/25/19 10:24 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 8.8 | mg/L | 5.0 | 2.5 | 1 | | 05/30/19 10:46 | 16887-00-6 | |
| Fluoride | 0.060 | mg/L | 0.050 | 0.034 | 1 | | 05/30/19 10:46 | 16984-48-8 | |
| Sulfate | 32.3 | mg/L | 5.0 | 2.5 | 1 | | 05/30/19 10:46 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-02 **Lab ID: 35468706002** Collected: 05/09/19 12:31 Received: 05/14/19 10:35 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 05/23/19 18:32 | 05/30/19 01:59 | 7440-36-0 | |
| Boron | 97.0 | ug/L | 25.0 | 2.6 | 1 | 05/23/19 18:32 | 05/30/19 01:59 | 7440-42-8 | |
| Lithium | 2.8 | ug/L | 2.5 | 0.42 | 1 | 05/23/19 18:32 | 05/30/19 01:59 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 05/23/19 18:32 | 05/30/19 01:59 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 40.7 | mg/L | 5.0 | 2.5 | 1 | | 05/30/19 11:08 | 16887-00-6 | |
| Fluoride | 0.24 | mg/L | 0.050 | 0.034 | 1 | | 05/30/19 11:08 | 16984-48-8 | |
| Sulfate | 47.4 | mg/L | 5.0 | 2.5 | 1 | | 05/30/19 11:08 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-03 **Lab ID: 35468706003** Collected: 05/09/19 11:00 Received: 05/14/19 10:35 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 05/23/19 18:32 | 05/25/19 10:38 | 7440-36-0 | |
| Boron | 3100 | ug/L | 500 | 51.0 | 20 | 05/23/19 18:32 | 05/30/19 02:02 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 05/23/19 18:32 | 05/25/19 10:38 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 05/23/19 18:32 | 05/25/19 10:38 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 17.9 | mg/L | 5.0 | 2.5 | 1 | | 05/30/19 11:31 | 16887-00-6 | |
| Fluoride | 0.070 | mg/L | 0.050 | 0.034 | 1 | | 05/30/19 11:31 | 16984-48-8 | |
| Sulfate | 117 | mg/L | 10.0 | 5.0 | 2 | | 05/31/19 06:02 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-04 **Lab ID: 35468706004** Collected: 05/09/19 09:45 Received: 05/14/19 10:35 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|---------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.15 I | ug/L | 0.50 | 0.11 | 1 | 05/23/19 18:32 | 05/25/19 11:03 | 7440-36-0 | |
| Boron | 647 | ug/L | 125 | 12.8 | 5 | 05/23/19 18:32 | 05/25/19 03:01 | 7440-42-8 | |
| Lithium | 10.6 | ug/L | 2.5 | 0.42 | 1 | 05/23/19 18:32 | 05/25/19 11:03 | 7439-93-2 | |
| Thallium | 0.12 | ug/L | 0.10 | 0.060 | 1 | 05/23/19 18:32 | 05/25/19 11:03 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 4.6 I | mg/L | 5.0 | 2.5 | 1 | | 05/30/19 11:53 | 16887-00-6 | |
| Fluoride | 0.10 | mg/L | 0.050 | 0.034 | 1 | | 05/30/19 11:53 | 16984-48-8 | |
| Sulfate | 89.6 | mg/L | 5.0 | 2.5 | 1 | | 05/30/19 11:53 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-05 **Lab ID: 35468706005** Collected: 05/08/19 09:24 Received: 05/14/19 10:35 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|-----------------------|----------------|---------------------------------------------------------------|------|-------|----|----------------|----------------|-----------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 05/23/19 18:32 | 05/25/19 02:43 | 7440-36-0 | |
| Boron | 3.5 I | ug/L | 25.0 | 2.6 | 1 | 05/23/19 18:32 | 05/25/19 02:43 | 7440-42-8 | V |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 05/23/19 18:32 | 05/25/19 02:43 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 05/23/19 18:32 | 05/25/19 02:43 | 7440-28-0 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: D19E005
Pace Project No.: 35468706

QC Batch: 476994 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 35468706001, 35468706002, 35468706003, 35468706004, 35468706005

METHOD BLANK: 2583418 Matrix: Water
Associated Lab Samples: 35468706001, 35468706002, 35468706003, 35468706004, 35468706005

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Antimony | ug/L | 0.11 U | 0.50 | 0.11 | 05/25/19 02:36 | |
| Boron | ug/L | 2.6 I | 25.0 | 2.6 | 05/25/19 02:36 | |
| Lithium | ug/L | 0.42 U | 2.5 | 0.42 | 05/25/19 02:36 | |
| Thallium | ug/L | 0.060 U | 0.10 | 0.060 | 05/25/19 02:36 | |

LABORATORY CONTROL SAMPLE: 2583419

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | ug/L | 100 | 96.8 | 97 | 80-120 | |
| Boron | ug/L | 50 | 50.8 | 102 | 80-120 | |
| Lithium | ug/L | 50 | 51.3 | 103 | 80-120 | |
| Thallium | ug/L | 10 | 9.8 | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2583420 2583421

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|-------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92429920018 Result | Spike Conc. | Spike Conc. | Conc. | | | | | | | | |
| Antimony | ug/L | ND | 100 | 100 | 97.0 | 97.5 | 97 | 98 | 75-125 | 1 | 20 | | |
| Boron | ug/L | ND | 50 | 50 | 51.0 | 53.0 | 98 | 102 | 75-125 | 4 | 20 | | |
| Lithium | ug/L | ND | 50 | 50 | 49.3 | 49.3 | 99 | 99 | 75-125 | 0 | 20 | | |
| Thallium | ug/L | ND | 10 | 10 | 9.9 | 9.9 | 99 | 99 | 75-125 | 1 | 20 | | |

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QUALITY CONTROL DATA

Project: D19E005
Pace Project No.: 35468706

QC Batch: 542312 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35468706001, 35468706002, 35468706003, 35468706004

METHOD BLANK: 2938485 Matrix: Water
Associated Lab Samples: 35468706001, 35468706002, 35468706003, 35468706004

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 05/30/19 08:54 | |
| Fluoride | mg/L | 0.034 U | 0.050 | 0.034 | 05/30/19 08:54 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 05/30/19 08:54 | |

LABORATORY CONTROL SAMPLE: 2938486

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 51.0 | 102 | 90-110 | |
| Fluoride | mg/L | 5 | 5.0 | 101 | 90-110 | |
| Sulfate | mg/L | 50 | 50.1 | 100 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2939892 2939893

| Parameter | Units | 35470086002 | | MS | | MSD | | MS | | MSD | | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|-------|-------------|-------|--------|--------|-------|--------|-----|----|--------------|-----|---------|------|
| | | Result | Conc. | Spike Conc. | Conc. | Result | Result | % Rec | % Rec | | | | | | |
| Chloride | mg/L | 12.4 | 50 | 50 | 65.3 | 65.3 | 106 | 106 | 90-110 | 0 | 20 | | | | |
| Fluoride | mg/L | 0.15 | 5 | 5 | 5.0 | 5.0 | 97 | 98 | 90-110 | 0 | 20 | | | | |
| Sulfate | mg/L | 38.7 | 50 | 50 | 94.9 | 95.0 | 112 | 113 | 90-110 | 0 | 20 | J(M1) | | | |

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-01 **Lab ID: 35468706001** Collected: 05/09/19 08:30 Received: 05/14/19 10:35 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|---------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.15U ± 0.740 (1.15) C:NA T:90% | pCi/L | 05/28/19 16:09 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.00 ± 0.496 (0.888) C:83% T:81% | pCi/L | 05/29/19 13:23 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.04U ± 1.24 (2.04) | pCi/L | 05/30/19 13:30 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-02 **Lab ID: 35468706002** Collected: 05/09/19 12:31 Received: 05/14/19 10:35 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.39U ± 0.864 (1.39) C:NA T:86% | pCi/L | 05/28/19 16:09 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.967U ± 0.514 (0.967) C:83% T:82% | pCi/L | 05/29/19 13:23 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.36U ± 1.38 (2.36) | pCi/L | 05/30/19 13:30 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-03 **Lab ID: 35468706003** Collected: 05/09/19 11:00 Received: 05/14/19 10:35 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.41 ± 0.774 (0.924) C:NA T:103% | pCi/L | 05/28/19 16:09 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.963U ± 0.464 (0.963) C:84% T:79% | pCi/L | 05/29/19 13:23 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.89 ± 1.24 (1.89) | pCi/L | 05/30/19 13:30 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-04 **Lab ID: 35468706004** Collected: 05/09/19 09:45 Received: 05/14/19 10:35 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|--------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 2.54 ± 1.05 (0.843) C:NA T:80% | pCi/L | 05/28/19 16:09 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 2.26 ± 0.674 (0.876) C:85% T:79% | pCi/L | 05/29/19 13:23 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 4.80 ± 1.72 (1.72) | pCi/L | 05/30/19 13:30 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19E005

Pace Project No.: 35468706

Sample: D19E005-05 **Lab ID: 35468706005** Collected: 05/08/19 09:24 Received: 05/14/19 10:35 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|---------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.880U ± 0.624 (0.880) C:NA T:90% | pCi/L | 05/30/19 11:02 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.05U ± 0.454 (1.05) C:77% T:75% | pCi/L | 05/24/19 14:24 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.93U ± 1.08 (1.93) | pCi/L | 05/30/19 13:30 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: D19E005

Pace Project No.: 35468706

QC Batch: 342319

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Associated Lab Samples: 35468706005

METHOD BLANK: 1666160

Matrix: Water

Associated Lab Samples: 35468706005

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.122 ± 0.346 (0.774) C:81% T:78% | pCi/L | 05/24/19 14:23 | |

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QUALITY CONTROL - RADIOCHEMISTRY

Project: D19E005

Pace Project No.: 35468706

QC Batch: 342318

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Associated Lab Samples: 35468706005

METHOD BLANK: 1666157

Matrix: Water

Associated Lab Samples: 35468706005

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|----------------------------------|-------|----------------|------------|
| Radium-226 | 0.120 ± 0.334 (0.647) C:NA T:79% | pCi/L | 05/30/19 10:40 | |

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QUALITY CONTROL - RADIOCHEMISTRY

Project: D19E005

Pace Project No.: 35468706

| | | | |
|-------------------------|----------------------------------------------------|-----------------------|------------------|
| QC Batch: | 343791 | Analysis Method: | EPA 904.0 |
| QC Batch Method: | EPA 904.0 | Analysis Description: | 904.0 Radium 228 |
| Associated Lab Samples: | 35468706001, 35468706002, 35468706003, 35468706004 | | |

| | | | |
|-------------------------|----------------------------------------------------|---------|-------|
| METHOD BLANK: | 1672915 | Matrix: | Water |
| Associated Lab Samples: | 35468706001, 35468706002, 35468706003, 35468706004 | | |

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|------------------------------------|-------|----------------|------------|
| Radium-228 | -0.309 ± 0.349 (0.865) C:84% T:75% | pCi/L | 05/29/19 13:16 | |

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: D19E005
Pace Project No.: 35468706

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.
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.

LABORATORIES

PASI-A Pace Analytical Services - Asheville
PASI-O Pace Analytical Services - Ormond Beach
PASI-PA Pace Analytical Services - Greensburg

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.
V Indicates that the analyte was detected in both the sample and the associated method blank.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D19E005

Pace Project No.: 35468706

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|------------|--------------------------|----------|-------------------|------------------|
| 35468706001 | D19E005-01 | EPA 3010A | 476994 | EPA 6020B | 477243 |
| 35468706002 | D19E005-02 | EPA 3010A | 476994 | EPA 6020B | 477243 |
| 35468706003 | D19E005-03 | EPA 3010A | 476994 | EPA 6020B | 477243 |
| 35468706004 | D19E005-04 | EPA 3010A | 476994 | EPA 6020B | 477243 |
| 35468706005 | D19E005-05 | EPA 3010A | 476994 | EPA 6020B | 477243 |
| 35468706001 | D19E005-01 | EPA 903.1 | 343790 | | |
| 35468706002 | D19E005-02 | EPA 903.1 | 343790 | | |
| 35468706003 | D19E005-03 | EPA 903.1 | 343790 | | |
| 35468706004 | D19E005-04 | EPA 903.1 | 343790 | | |
| 35468706005 | D19E005-05 | EPA 903.1 | 342318 | | |
| 35468706001 | D19E005-01 | EPA 904.0 | 343791 | | |
| 35468706002 | D19E005-02 | EPA 904.0 | 343791 | | |
| 35468706003 | D19E005-03 | EPA 904.0 | 343791 | | |
| 35468706004 | D19E005-04 | EPA 904.0 | 343791 | | |
| 35468706005 | D19E005-05 | EPA 904.0 | 342319 | | |
| 35468706001 | D19E005-01 | Total Radium Calculation | 344871 | | |
| 35468706002 | D19E005-02 | Total Radium Calculation | 344871 | | |
| 35468706003 | D19E005-03 | Total Radium Calculation | 344871 | | |
| 35468706004 | D19E005-04 | Total Radium Calculation | 344871 | | |
| 35468706005 | D19E005-05 | Total Radium Calculation | 344871 | | |
| 35468706001 | D19E005-01 | EPA 300.0 | 542312 | | |
| 35468706002 | D19E005-02 | EPA 300.0 | 542312 | | |
| 35468706003 | D19E005-03 | EPA 300.0 | 542312 | | |
| 35468706004 | D19E005-04 | EPA 300.0 | 542312 | | |

REPORT OF LABORATORY ANALYSIS

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



SUBCONTRACT ORDER
Deerhaven Generating Station
D19E005

WO# : 35468706



SENDING LABORATORY:

Gainesville Regional Utilities
 Deerhaven Generating Station
 10001 NW 13th Street
 Gainesville, FL 32653
 Phone: 352-334-3434
 Fax: 352-334-3149
 Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Pace Analytical
 8 East Tower Circle
 Ormond Beach, FL 32174
 Phone : (386) 672-5668
 Fax: (386) 673-4001

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------------|-----------------|--------------------------------|----------|
| Sample Name: LF-1 | | | |
| Sample ID: D19E005-01 | Water | Sampled:09-May-19 08:30 | |
| D_Anions - Fluoride | 06-Jun-19 08:30 | | |
| D_Anions - Sulfates | 06-Jun-19 08:30 | | |
| D_Antimony by 6020 | 05-Nov-19 08:30 | | |
| D_Boron by 6020 | 05-Nov-19 08:30 | | |
| D_Lithium by 6020 | 05-Nov-19 08:30 | | |
| D_Radium226+228_Combined | 01-Nov-19 08:30 | | |
| D_Thallium by 6020 | 05-Nov-19 08:30 | | |
| D_Anions - Chlorides | 06-Jun-19 08:30 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: LF-2 | | | |
| Sample ID: D19E005-02 | Water | Sampled:09-May-19 12:31 | |
| D_Anions - Chlorides | 06-Jun-19 12:31 | | |
| D_Radium226+228_Combined | 01-Nov-19 12:31 | | |
| D_Thallium by 6020 | 05-Nov-19 12:31 | | |
| D_Lithium by 6020 | 05-Nov-19 12:31 | | |
| D_Boron by 6020 | 05-Nov-19 12:31 | | |
| D_Antimony by 6020 | 05-Nov-19 12:31 | | |
| D_Anions - Fluoride | 06-Jun-19 12:31 | | |
| D_Anions - Sulfates | 06-Jun-19 12:31 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |

Shipped via Fed Ex

| | | | |
|--------------------|----------------|----------------|-----------------------|
| <i>R. Boudreau</i> | <i>5/13/19</i> | <i>J. Pace</i> | <i>05/14/19 10:35</i> |
| Released By | Date | Received By | Date |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19E005

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

Sample Name: LF-3

Sample ID: D19E005-03 **Water** **Sampled:09-May-19 11:00**



- D_Antimony by 6020 05-Nov-19 11:00
- D_Anions - Chlorides 06-Jun-19 11:00
- D_Boron by 6020 05-Nov-19 11:00
- D_Thallium by 6020 05-Nov-19 11:00
- D_Radium226+228_Combined 01-Nov-19 11:00
- D_Lithium by 6020 05-Nov-19 11:00
- D_Anions - Sulfates 06-Jun-19 11:00
- D_Anions - Fluoride 06-Jun-19 11:00

Containers Supplied:

- D_HDPE, HNO3 pH<2 - 250mL extra (B)
- D_HDPE, Chill @<6*C - 250mL (C)
- D_HDPE, HNO3 pH<2 - 2000mL (D)

Sample Name: LF-4

Sample ID: D19E005-04 **Water** **Sampled:09-May-19 09:45**



- D_Thallium by 6020 05-Nov-19 09:45
- D_Boron by 6020 05-Nov-19 09:45
- D_Antimony by 6020 05-Nov-19 09:45
- D_Anions - Sulfates 06-Jun-19 09:45
- D_Anions - Chlorides 06-Jun-19 09:45
- D_Lithium by 6020 05-Nov-19 09:45
- D_Radium226+228_Combined 01-Nov-19 09:45
- D_Anions - Fluoride 06-Jun-19 09:45

Containers Supplied:

- D_HDPE, HNO3 pH<2 - 250mL extra (B)
- D_HDPE, Chill @<6*C - 250mL (C)
- D_HDPE, HNO3 pH<2 - 2000mL (D)

Sample Name: EBLANK

Sample ID: D19E005-05 **Water** **Sampled:08-May-19 09:24**



- D_Thallium by 6020 04-Nov-19 09:24
- D_Antimony by 6020 04-Nov-19 09:24
- D_Boron by 6020 04-Nov-19 09:24
- D_Lithium by 6020 04-Nov-19 09:24
- D_Radium226+228_Combined 31-Oct-19 09:24

Containers Supplied:

- D_HDPE, HNO3 pH<2 - 250mL extra (B)
- D_HDPE, HNO3 pH<2 - 2000mL (D)

Shipped via Fed Ex

| | | | |
|---------------------|----------------|-----------------|----------------------|
| <i>R. Bolefield</i> | <i>5/13/19</i> | <i>MDI/Pace</i> | <i>05/14/19 1035</i> |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



Document Name:
Sample Condition Upon Receipt Form
Document No.:
F-FL-C-007 rev. 13

Document Revised:
May 30, 2018
Issuing Authority:
Pace Florida Quality Office

WO# : 35468706 m (SCUR)

Project
Project Manager
Client

PM: JSB
Due Date: 05/31/19
CLIENT: DEELAB

Date and Initials of person:
Examining contents: BVM
Label: _____
Deliver: _____
pH: BVM SUP DS

Thermometer Used: T-353 Date: 5/19 Time: 10:49 Initials: SRW

State of Origin: _____ For WV projects, all containers verified to ≤6 °C

| | | | | |
|--------------------|----------------------|--------------------------------|----------------------|--------------------------------------------------------------------|
| Cooler #1 Temp. °C | <u>1.5</u> (Visual) | <u>1.1</u> (Correction Factor) | <u>1.5</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #2 Temp. °C | <u>25.9</u> (Visual) | <u>1.1</u> (Correction Factor) | <u>26.0</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #3 Temp. °C | <u>33.8</u> (Visual) | <u>1.1</u> (Correction Factor) | <u>33.9</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #4 Temp. °C | <u>21.9</u> (Visual) | <u>1.1</u> (Correction Factor) | <u>22.0</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #5 Temp. °C | <u>23.7</u> (Visual) | <u>1.1</u> (Correction Factor) | <u>23.7</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #6 Temp. °C | _____ (Visual) | _____ (Correction Factor) | _____ (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |

Courier: Fed Ex 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 # 8139 3749 9434 / 9467 / 9478 / 9456 / 9445

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Ice: Wet Blue Dry 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 checked="" 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 | |
| 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 type="checkbox"/> Yes <input checked="" 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: Preservative: _____ Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____ |
| All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Headspace in VOA Vials? (>6mm): | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | |
| Trip Blank Present: | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | |

Client Notification/ Resolution:
Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments): _____



Kanapaha Laboratory

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

Florida Department of Health Certification E52099

June 25, 2019

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

RE: Environmental

Enclosed are the results of analyses for samples received by the laboratory on 5/13/2019. 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 Dlhos
Laboratory Supervisor



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

Project: Environmental
Project Number: D19E005
Project Manager: Jeff Boudreau

Reported:
06/25/2019 17:17

ANALYTICAL REPORT FOR SAMPLES

| Laboratory ID | Sample ID | Matrix | Date Sampled | Date Received |
|----------------------|-------------------|---------------|---------------------|----------------------|
| K19E041-01 | D19E005-01 (LF-1) | Groundwater | 05/09/2019 08:30 | 05/13/2019 13:20 |
| K19E041-02 | D19E005-02 (LF-2) | Groundwater | 05/09/2019 12:31 | 05/13/2019 13:20 |
| K19E041-03 | D19E005-03 (LF-3) | Groundwater | 05/09/2019 11:00 | 05/13/2019 13:20 |
| K19E041-04 | D19E005-04 (LF-4) | Groundwater | 05/09/2019 09:45 | 05/13/2019 13:20 |



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

Project: Environmental
Project Number: D19E005
Project Manager: Jeff Boudreau

Reported:
06/25/2019 17:17

D19E005-01 (LF-1)
K19E041-01 (Groundwater, Grab)
Collected: 05/09/2019 8:30 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|------|---|------|------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Barium | 54.3 | | 0.2 | 0.8 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Calcium | 14.0 | | 0.10 | 0.40 | mg/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Chromium | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Molybdenum | 2.9 | I | 2.5 | 10.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |

D19E005-02 (LF-2)

K19E041-02 (Groundwater, Grab)
Collected: 05/09/2019 12:31 pm

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|------|---|------|------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Barium | 68.7 | | 0.2 | 0.8 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Beryllium | 0.10 | I | 0.10 | 0.40 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Calcium | 16.9 | | 0.10 | 0.40 | mg/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Chromium | 5.2 | | 1.2 | 4.8 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Cobalt | 3.2 | I | 1.0 | 4.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |



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

Project: Environmental
Project Number: D19E005
Project Manager: Jeff Boudreau

Reported:
06/25/2019 17:17

D19E005-03 (LF-3)
K19E041-03 (Groundwater, Grab)
Collected: 05/09/2019 11:00 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|------|---|------|------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Barium | 36.1 | | 0.2 | 0.8 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Calcium | 10.8 | | 0.10 | 0.40 | mg/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Chromium | 7.3 | | 1.2 | 4.8 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |

D19E005-04 (LF-4)
K19E041-04 (Groundwater, Grab)
Collected: 05/09/2019 9:45 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|------|---|------|------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Barium | 52.6 | | 0.2 | 0.8 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Calcium | 23.6 | | 0.10 | 0.40 | mg/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Chromium | 2.0 | I | 1.2 | 4.8 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Molybdenum | 2.7 | I | 2.5 | 10.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 05/20/2019 | 05/28/2019 | EPA 200.7 |



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

Project: Environmental
Project Number: D19E005
Project Manager: Jeff Boudreau

Reported:
06/25/2019 17:17

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 B19E110 - EPA 200.7

Blank (B19E110-BLK1)

Prepared: 5/20/2019 Analyzed: 5/28/2019

| | | | | | | | | | | | |
|------------|-----------|--|------|------|------|--|--|--|--|--|------|
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | | | | | NR |
| Barium | 0.2 U | | 0.2 | 0.8 | ug/L | | | | | | 149 |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | | | | | NR |
| Chromium | 1.2 U | | 1.2 | 4.8 | ug/L | | | | | | NR |
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Calcium | 0.11 I, V | | 0.10 | 0.40 | mg/L | | | | | | 46.0 |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | | | | | NR |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | | | | | NR |

Blank (B19E110-BLK2)

Prepared: 6/19/2019 Analyzed: 6/24/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|--|--|--|--|------|
| Calcium | 0.10 U | | 0.10 | 0.40 | mg/L | | | | | | 46.0 |
| Chromium | 1.2 U | | 1.2 | 4.8 | ug/L | | | | | | NR |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | | | | | NR |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | | | | | NR |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | | | | | NR |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | | | | | NR |
| Barium | 0.2 U | | 0.2 | 0.8 | ug/L | | | | | | 149 |
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | NR |

LCS (B19E110-BS1)

Prepared: 5/20/2019 Analyzed: 5/28/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|--|-------|
| Beryllium | 98.5 | | | | ug/L | 99.3 | | 99.2 | 90-110 | | 3.16 |
| Chromium | 101 | | | | ug/L | 100 | | 101 | 90-110 | | 2.35 |
| Molybdenum | 96.9 | | | | ug/L | 100 | | 96.9 | 90-110 | | 1.52 |
| Barium | 97.7 | | | | ug/L | 100 | | 97.7 | 90-110 | | 1.22 |
| Arsenic | 98.4 | | | | ug/L | 99.3 | | 99.1 | 90-110 | | 3.91 |
| Calcium | 23.8 | | | | mg/L | 24.8 | | 96.0 | 90-110 | | 5.15 |
| Cobalt | 98.0 | | | | ug/L | 101 | | 97.0 | 90-110 | | 2.83 |
| Selenium | 92.5 | | | | ug/L | 99.9 | | 92.6 | 90-110 | | 0.153 |
| Lead | 99.6 | | | | ug/L | 100 | | 99.6 | 90-110 | | 3.06 |

LCS (B19E110-BS2)

Prepared: 6/19/2019 Analyzed: 6/24/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|--|-------|
| Cobalt | 102 | | | | ug/L | 101 | | 101 | 90-110 | | 2.83 |
| Chromium | 97.7 | | | | ug/L | 100 | | 97.7 | 90-110 | | 2.35 |
| Calcium | 25.6 | | | | mg/L | 24.8 | | 103 | 90-110 | | 5.15 |
| Arsenic | 104 | | | | ug/L | 99.3 | | 105 | 90-110 | | 3.91 |
| Selenium | 92.7 | | | | ug/L | 99.9 | | 92.8 | 90-110 | | 0.153 |
| Beryllium | 103 | | | | ug/L | 99.3 | | 104 | 90-110 | | 3.16 |
| Molybdenum | 99.0 | | | | ug/L | 100 | | 99.0 | 90-110 | | 1.52 |
| Lead | 104 | | | | ug/L | 100 | | 104 | 90-110 | | 3.06 |
| Barium | 99.4 | | | | ug/L | 100 | | 99.4 | 90-110 | | 1.22 |



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

Project: Environmental
Project Number: D19E005
Project Manager: Jeff Boudreau

Reported:
06/25/2019 17:17

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 B19E110 - EPA 200.7 (Continued)

LCS (B19E110-BS2)

Prepared: 6/19/2019 Analyzed: 6/24/2019

Duplicate (B19E110-DUP1)

Source: K19E041-04

Prepared: 5/20/2019 Analyzed: 5/28/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|--|------|--|--|-------|--|
| Cobalt | 1.0I | | 1.0 | 4.0 | ug/L | | ND | | | 25.5 | |
| Molybdenum | 2.6I | | 2.5 | 10.0 | ug/L | | 2.7 | | | 1.06 | |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | 2.69 | |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | 136 | |
| Barium | 52.6 | | 0.2 | 0.8 | ug/L | | 52.6 | | | 0.00 | |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |
| Chromium | 2.4I | | 1.2 | 4.8 | ug/L | | 2.0 | | | 10.5 | |
| Calcium | 23.5 | | 0.10 | 0.40 | mg/L | | 23.6 | | | 0.300 | |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | ND | | | NR | |

Duplicate (B19E110-DUP2)

Source: K19E043-10

Prepared: 5/20/2019 Analyzed: 5/28/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|--|------|--|--|-------|--|
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | ND | | | NR | |
| Barium | 2.8 | | 0.2 | 0.8 | ug/L | | 2.9 | | | 0.746 | |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |
| Chromium | 1.2U | | 1.2 | 4.8 | ug/L | | ND | | | 119 | |
| Calcium | 19.0 | | 0.10 | 0.40 | mg/L | | 19.1 | | | 0.371 | |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | 125 | |
| Molybdenum | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | 85.0 | |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | 65.8 | |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | ND | | | NR | |

Duplicate (B19E110-DUP3)

Source: K19E058-03

Prepared: 6/19/2019 Analyzed: 6/24/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|--|------|--|--|------|--|
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | ND | | | NR | |
| Molybdenum | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |
| Calcium | 34.0 | | 0.10 | 0.40 | mg/L | | 34.5 | | | 1.03 | |
| Chromium | 1.2U | | 1.2 | 4.8 | ug/L | | ND | | | 163 | |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | ND | | | 10.1 | |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | NR | |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | NR | |
| Barium | 7.7 | | 0.2 | 0.8 | ug/L | | 7.8 | | | 1.00 | |

Duplicate (B19E110-DUP4)

Source: K19E058-06

Prepared: 6/19/2019 Analyzed: 6/24/2019

| | | | | | | | | | | | |
|----------|------|--|------|------|------|--|------|--|--|-------|--|
| Calcium | 42.6 | | 0.10 | 0.40 | mg/L | | 42.8 | | | 0.331 | |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | 82.9 | |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | ND | | | 34.0 | |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | NR | |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |
| Barium | 5.7 | | 0.2 | 0.8 | ug/L | | 5.7 | | | 0.744 | |



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

Project: Environmental
Project Number: D19E005
Project Manager: Jeff Boudreau

Reported:
06/25/2019 17:17

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 B19E110 - EPA 200.7 (Continued)

| Duplicate (B19E110-DUP4) | | Source: K19E058-06 | | | | Prepared: 6/19/2019 Analyzed: 6/24/2019 | | | | | |
|--------------------------|--------|--------------------|------|------|------|-----------------------------------------|----|--|--|--|------|
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | | 2.89 |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | ND | | | | 6.90 |
| Chromium | 1.2 U | | 1.2 | 4.8 | ug/L | | ND | | | | 33.9 |

| Matrix Spike (B19E110-MS1) | | Source: K19E041-04 | | | | Prepared: 5/20/2019 Analyzed: 5/28/2019 | | | | | |
|----------------------------|------|--------------------|------|------|------|-----------------------------------------|------|------|--------|--|--|
| Selenium | 48.4 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 96.8 | 90-110 | | |
| Arsenic | 196 | | 2.5 | 10.0 | ug/L | 200 | ND | 98.0 | 90-110 | | |
| Molybdenum | 497 | | 2.5 | 10.0 | ug/L | 500 | 2.7 | 98.9 | 90-110 | | |
| Barium | 544 | | 0.2 | 0.8 | ug/L | 500 | 52.6 | 98.3 | 90-110 | | |
| Cobalt | 197 | | 1.0 | 4.0 | ug/L | 200 | ND | 98.5 | 90-110 | | |
| Chromium | 204 | | 1.2 | 4.8 | ug/L | 200 | 2.0 | 101 | 90-110 | | |
| Lead | 200 | | 3.0 | 12.0 | ug/L | 200 | ND | 100 | 90-110 | | |
| Calcium | 49.3 | | 0.10 | 0.40 | mg/L | 25.0 | 23.6 | 103 | 90-110 | | |
| Beryllium | 204 | | 0.10 | 0.40 | ug/L | 200 | ND | 102 | 90-110 | | |

| Matrix Spike (B19E110-MS2) | | Source: K19E043-10 | | | | Prepared: 5/20/2019 Analyzed: 5/28/2019 | | | | | |
|----------------------------|------|--------------------|------|------|------|-----------------------------------------|------|------|--------|--|--|
| Barium | 492 | | 0.2 | 0.8 | ug/L | 500 | 2.9 | 97.8 | 90-110 | | |
| Calcium | 44.5 | | 0.10 | 0.40 | mg/L | 25.0 | 19.1 | 102 | 90-110 | | |
| Beryllium | 203 | | 0.10 | 0.40 | ug/L | 200 | ND | 102 | 90-110 | | |
| Molybdenum | 493 | | 2.5 | 10.0 | ug/L | 500 | ND | 98.6 | 90-110 | | |
| Selenium | 46.0 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 92.0 | 90-110 | | |
| Cobalt | 196 | | 1.0 | 4.0 | ug/L | 200 | ND | 98.0 | 90-110 | | |
| Arsenic | 192 | | 2.5 | 10.0 | ug/L | 200 | ND | 96.0 | 90-110 | | |
| Lead | 197 | | 3.0 | 12.0 | ug/L | 200 | ND | 98.5 | 90-110 | | |
| Chromium | 201 | | 1.2 | 4.8 | ug/L | 200 | ND | 100 | 90-110 | | |

| Matrix Spike (B19E110-MS3) | | Source: K19E058-03 | | | | Prepared: 6/19/2019 Analyzed: 6/24/2019 | | | | | |
|----------------------------|------|--------------------|------|------|------|-----------------------------------------|------|------|--------|--|--|
| Chromium | 200 | | 1.2 | 4.8 | ug/L | 200 | ND | 100 | 90-110 | | |
| Barium | 510 | | 0.2 | 0.8 | ug/L | 500 | 7.8 | 100 | 90-110 | | |
| Selenium | 47.5 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 95.0 | 90-110 | | |
| Beryllium | 207 | | 0.10 | 0.40 | ug/L | 200 | ND | 104 | 90-110 | | |
| Calcium | 58.4 | | 0.10 | 0.40 | mg/L | 25.0 | 34.5 | 95.6 | 90-110 | | |
| Cobalt | 207 | | 1.0 | 4.0 | ug/L | 200 | ND | 104 | 90-110 | | |
| Arsenic | 206 | | 2.5 | 10.0 | ug/L | 200 | ND | 103 | 90-110 | | |
| Molybdenum | 520 | | 2.5 | 10.0 | ug/L | 500 | ND | 104 | 90-110 | | |
| Lead | 207 | | 3.0 | 12.0 | ug/L | 200 | ND | 104 | 90-110 | | |

| Matrix Spike (B19E110-MS4) | | Source: K19E058-06 | | | | Prepared: 6/19/2019 Analyzed: 6/24/2019 | | | | | |
|----------------------------|------|--------------------|-----|------|------|-----------------------------------------|----|------|--------|--|--|
| Selenium | 47.5 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 95.0 | 90-110 | | |
| Molybdenum | 527 | | 2.5 | 10.0 | ug/L | 500 | ND | 105 | 90-110 | | |
| Lead | 208 | | 3.0 | 12.0 | ug/L | 200 | ND | 104 | 90-110 | | |



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

Project: Environmental
Project Number: D19E005
Project Manager: Jeff Boudreau

Reported:
06/25/2019 17:17

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 B19E110 - EPA 200.7 (Continued)

Matrix Spike (B19E110-MS4)

Source: K19E058-06

Prepared: 6/19/2019 Analyzed: 6/24/2019

| | | | | | | | | | | | |
|-----------|------|--|------|------|------|------|------|-----|--------|--|--|
| Cobalt | 209 | | 1.0 | 4.0 | ug/L | 200 | ND | 104 | 90-110 | | |
| Calcium | 68.2 | | 0.10 | 0.40 | mg/L | 25.0 | 42.8 | 102 | 90-110 | | |
| Beryllium | 211 | | 0.10 | 0.40 | ug/L | 200 | ND | 106 | 90-110 | | |
| Barium | 517 | | 0.2 | 0.8 | ug/L | 500 | 5.7 | 102 | 90-110 | | |
| Arsenic | 209 | | 2.5 | 10.0 | ug/L | 200 | ND | 104 | 90-110 | | |
| Chromium | 203 | | 1.2 | 4.8 | ug/L | 200 | ND | 102 | 90-110 | | |



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

Project: Environmental
Project Number: D19E005
Project Manager: Jeff Boudreau

Reported:
06/25/2019 17:17

Notes and Definitions

| <u>Qualifier</u> | <u>Description</u> |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| V | Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the blank value was greater than 10% of the associated sample value. |
| 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 |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19E005

SENDING LABORATORY:

Gainesville Regional Utilities
 Deerhaven Generating Station
 10001 NW 13th Street
 Gainesville, FL 32653
 Phone: 352-334-3434
 Fax: 352-334-3149
 Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Kanapaha Laboratory
 3901 SW 63rd BLVD
 Gainesville, FL/USA 32608
 Phone :352-393-6777
 Fax: 352-334-2732

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

Sample Name: LF-1

Sample ID: D19E005-01

Water

Sampled:09-May-19 08:30

K19E041-01

| | |
|--------------|-----------------|
| K_Selenium | 05-Nov-19 08:30 |
| K_Barium | 05-Nov-19 08:30 |
| K_Beryllium | 05-Nov-19 08:30 |
| K_Calcium | 05-Nov-19 08:30 |
| K_Chromium | 05-Nov-19 08:30 |
| K_Cobalt | 05-Nov-19 08:30 |
| K_Lead | 05-Nov-19 08:30 |
| K_Molybdenum | 05-Nov-19 08:30 |
| K_Arsenic | 05-Nov-19 08:30 |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (A)

Sample Name: LF-2

Sample ID: D19E005-02

Water

Sampled:09-May-19 12:31

K19E041-02

| | |
|--------------|-----------------|
| K_Lead | 05-Nov-19 12:31 |
| K_Cobalt | 05-Nov-19 12:31 |
| K_Chromium | 05-Nov-19 12:31 |
| K_Calcium | 05-Nov-19 12:31 |
| K_Beryllium | 05-Nov-19 12:31 |
| K_Molybdenum | 05-Nov-19 12:31 |
| K_Arsenic | 05-Nov-19 12:31 |
| K_Selenium | 05-Nov-19 12:31 |
| K_Barium | 05-Nov-19 12:31 |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (A)

Shipped via Inter Office Mail

Released By *K Brakefield*Date *5/13/19*Received By *S*Date *5-13-19 1320*

Released By

Date

Received By

Date



SUBCONTRACT ORDER
Deerhaven Generating Station
D19E005

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------|-----------------|--------------------------------|-------------------|
| Sample Name: LF-3 | | | |
| Sample ID: D19E005-03 | Water | Sampled:09-May-19 11:00 | K19E041-03 |
| K_Selenium | 05-Nov-19 11:00 | | |
| K_Barium | 05-Nov-19 11:00 | | |
| K_Beryllium | 05-Nov-19 11:00 | | |
| K_Calcium | 05-Nov-19 11:00 | | |
| K_Chromium | 05-Nov-19 11:00 | | |
| K_Cobalt | 05-Nov-19 11:00 | | |
| K_Lead | 05-Nov-19 11:00 | | |
| K_Molybdenum | 05-Nov-19 11:00 | | |
| K_Arsenic | 05-Nov-19 11:00 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | |
| Sample Name: LF-4 | | | |
| Sample ID: D19E005-04 | Water | Sampled:09-May-19 09:45 | K19E041-04 |
| K_Molybdenum | 05-Nov-19 09:45 | | |
| K_Lead | 05-Nov-19 09:45 | | |
| K_Cobalt | 05-Nov-19 09:45 | | |
| K_Chromium | 05-Nov-19 09:45 | | |
| K_Calcium | 05-Nov-19 09:45 | | |
| K_Beryllium | 05-Nov-19 09:45 | | |
| K_Arsenic | 05-Nov-19 09:45 | | |
| K_Selenium | 05-Nov-19 09:45 | | |
| K_Barium | 05-Nov-19 09:45 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | |

Shipped via inter office mail

| | | | |
|---------------------|----------------|-------------|----------------------|
| <i>K Brakefield</i> | <i>5/13/19</i> | <i>S. ~</i> | <i>5-13-19 01320</i> |
| Released By | Date | Received By | Date |
| Released By | Date | Received By | Date |

Total Suspended Solids - Non-Filtrable Residue - SM2540D

Date 5/10/19
 Time 8:53
 Analyst S. Phillips
 Work Order D19D060 D19E005
 Batch 1919013

Quarter: 2Q19
 CCR May 2019
 Duplicate Source: D19D060-01

| Sample ID | ID | Initial Filter Weight (g) | Sample Volume (mL) | Dry filter and Sample Final Wgt (g) | TSS, Final Result mg/L | Reporting Limit mg/L | Qual |
|--------------|------------|---------------------------|--------------------|-------------------------------------|------------------------|----------------------|------|
| 1919013-BLK1 | Blank | 0.1263 | 1000 | 0.1262 | -0.1 | 1.0 | U |
| 1919013-SRM1 | Blind QC | 0.1224 | 500 | 0.1560 | 67.2 | 1.0 | |
| 1919013-DUP1 | Duplicate | 0.1218 | 1000 | 0.1258 | 4.0 | 1.0 | |
| D19D060-01 | R1T6 | 0.1222 | 1000 | 0.1262 | 4.0 | 1.0 | |
| D19D060-02 | R2T1 | 0.1267 | 1000 | 0.1268 | 0.1 | 1.0 | U |
| D19D060-03 | R3T7 | 0.1223 | 1000 | 0.1304 | 8.1 | 1.0 | |
| D19D060-04 | R4T5b | 0.1254 | 1000 | 0.1253 | -0.1 | 1.0 | U |
| D19D060-05 | R6T1b | 0.1165 | 1000 | 0.1162 | -0.3 | 1.0 | U |
| D19D060-06 | R6T4b | 0.1151 | 1000 | 0.1150 | -0.1 | 1.0 | U |
| D19D060-08 | R6T12b | 0.1151 | 1000 | 0.1150 | -0.1 | 1.0 | U |
| D19D060-09 | R8T10 | 0.1185 | 1000 | 0.1184 | -0.1 | 1.0 | U |
| D19D060-10 | R9T5b | 0.1262 | 1000 | 0.1260 | -0.2 | 1.0 | U |
| D19D060-11 | R10T8 | 0.1157 | 1000 | 0.1154 | -0.3 | 1.0 | U |
| D19D060-12 | R11T4b | 0.1218 | 1000 | 0.1218 | 0.0 | 1.0 | U |
| D19D060-13 | DEEP WELL | 0.1185 | 1000 | 0.1184 | -0.1 | 1.0 | U |
| D19D060-14 | EBLANK | 0.1248 | 1000 | 0.1248 | 0.0 | 1.0 | U |
| D19D060-15 | FIELD DUPE | 0.1128 | 1000 | 0.1128 | 0.0 | 1.0 | U |
| D19E005-01 | LF1 | 0.1161 | 1000 | 0.1160 | -0.1 | 1.0 | U |
| D19E005-02 | LF2 | 0.1235 | 1000 | 0.1243 | 0.8 | 1.0 | U |
| D19E005-03 | LF3 | 0.1136 | 1000 | 0.1137 | 0.1 | 1.0 | U |
| D19E005-04 | LF4 | 0.1153 | 1000 | 0.1152 | -0.1 | 1.0 | U |

Balance S/N: U07797

Oven S/N: U08230

| | | |
|------------------|-------|---------|
| SRM TV, mg/L | 75.7 | |
| SRM, mg/L | 67.2 | |
| % Recovery | 88.77 | % Range |
| Low Range, mg/L | 61.4 | 81.1 |
| High Range, mg/L | 84.5 | 112 |

| | |
|-----------|---|
| Sample | 4 |
| Duplicate | 4 |
| %RPD | 0 |

Total Suspended Solids = (Dry Filter and Sample(g) - Initial Filter(g))*1000000/Sample Volume(mL)

Shelley Phillips

Reviewed By: Km

Total Suspended Solids - Non-Filtrable Residue - SM2540D

Work Orders: D19D060, D19E005

Date: 5-10-19
 Time: 0853
 Analyst: S. Ph. Hillis
 Batch: 1919013

| Oven | Date/Time IN | Date/Time OUT |
|--------------|--------------|---------------|
| Dry Cycle #1 | 5-10-19/1153 | 5-10-19/1154 |
| Dry Cycle #2 | 5-10-19/1400 | 5-10-19/1500 |
| Dry Cycle #3 | | |

Quarter: 2Q19

CR May 2019

SRM Source ID: DE91001

Duplicate ID: D19D060-01

Oven Calibration Date: 1-8-19

Date Filter Lot Verified: 12-5-19

Observed Oven Temp °C
 Balance Check before weighings (Analyst Initials)

preweighed
 SP No 5-10-19 preweighed

| | | |
|-------|-------|--|
| 103.8 | 104.3 | |
| SP | SP | |

| Sample ID | Container | ID | Pan # | Initial Filter Weight (g) | Sample Volume (mL) | Dry filter and Sample | | | Final Wgt (g) |
|--------------|-----------|------------|----------------------------------|---------------------------|---------------------------------------------------------|-----------------------|-------------|-------------|---------------|
| | | | | | | 1st Wgt (g) | 2nd Wgt (g) | 3rd Wgt (g) | |
| 1919013-BLK1 | - | Blank | SP No 5-10-19 HDMXL | 0.1263 | 1000 | 0.1262 | 0.1262 | | 0.1262 |
| 1919013-SRM1 | - | Blind QC | HDMXM | 0.1224 | 500 | 0.1558 | 0.1560 | | 0.1560 |
| 1919013-DUP1 | A | Duplicate | HDMXN | 0.1218 | 1000 | 0.1259 | 0.1258 | | 0.1258 |
| D19D060-01 | A | R1T6 | HDMXP | 0.1222 | 1000 | 0.1262 | 0.1262 | | 0.1262 |
| D19D060-02 | A | R2T1 | HDMXQ | 0.1267 | 1000 | 0.1267 | 0.1268 | | 0.1268 |
| D19D060-03 | A | R3T7 | HDMXR | 0.1223 | 1000 | 0.1305 | 0.1304 | | 0.1304 |
| D19D060-04 | A | R4T5b | HDMXS | 0.1254 | 1000 | 0.1254 | 0.1253 | | 0.1253 |
| D19D060-05 | A | R6T1b | HCRSB | 0.1165 | 1000 | 0.1161 | 0.1162 | | 0.1162 |
| D19D060-06 | A | R6T4b | HDMVZ | 0.1151 | 1000 | 0.1150 | 0.1150 | | 0.1150 |
| D19D060-07 | No Sample | R6T8b | HDMW0 | 0.1153 | No Sample - well was destroyed by logging truck between | | | | 0.1150 |
| D19D060-08 | A | R6T12b | HDMW1 | 0.1151 | 1000 | 0.1148 | 0.1150 | | 0.1150 |
| D19D060-09 | A | R8T10 | HDMW2 | 0.1185 | 0.1184 ^{1000 5-10-19} | 0.1184 | 0.1184 | | 0.1184 |
| D19D060-10 | A | R9T5b | HDMW3 | 0.1262 | 0.1259 ¹⁰⁰⁰ | 0.1259 | 0.1260 | | 0.1260 |
| D19D060-11 | A | R10T8 | HDMW4 | 0.1157 | 1000 | 0.1154 | 0.1154 | | 0.1154 |
| D19D060-12 | A | R11T4b | HDMW5 | 0.1218 | 1000 | 0.1218 | 0.1218 | | 0.1218 |
| D19D060-13 | A | DEEP WELL | HDMW6 | 0.1185 | 0.1183 ^{1000 5-10-19} | 0.1183 | 0.1184 | | 0.1184 |
| D19D060-14 | A | EBLANK | SP No 5-10-19 HDMW7XK | 0.1248 | 1000 | 0.1247 | 0.1248 | | 0.1248 |
| D19D060-15 | A | FIELD DUPE | HDMW8 | 0.1128 | 1000 | 0.1125 | 0.1128 | | 0.1128 |
| D19E005-01 | E | LF1 | HDMW9 | 0.1161 | 1000 | 0.1158 | 0.1160 | | 0.1160 |
| D19E005-02 | E | LF2 | HDMWA | 0.1235 | 1000 | 0.1242 | 0.1243 | | 0.1243 |
| D19E005-03 | E | LF3 | HDMWB | 0.1136 | 1000 | 0.1136 | 0.1137 | | 0.1137 |
| D19E005-04 | E | LF4 | HDMW0 | 0.1153 | 1000 | 0.1151 | 0.1152 | | 0.1152 |

Balance Check after weighings (Analyst Initials)

preweighed

| | | |
|----|----|--|
| SP | SP | |
|----|----|--|

Shelly Hillis

Balance S/N: U07797

Oven S/N: U08230

Eblank-dropped filter in sink while identifying wrinkle side got new one Initial filter wt 0.1248

QA: PH
 Reviewed By: TD: JB

Total Dissolved Solids - Filterable Residue - SM2540C

Quarter: 2Q19
CCR May2019

Duplicate Source: D19D060-01

Date 5/10/19
Time 8:53
Analyst s. Phillips
Work Order D19D060 D19E005
Batch 1919013

| Sample ID | ID | Dish Weight (g) | Sample Volume (mL) | Dry Dish and Sample Final Wgt (g) | TDS, Final Result mg/L | Reporting Limit mg/L | Qual |
|--------------|------------|-----------------|--------------------|-----------------------------------|------------------------|----------------------|------|
| | | | | 66.6886 | 2 | 10 | U |
| 1919013-BLK1 | Blank | 66.6884 | 100 | 69.7235 | 207 | 10 | |
| 1919013-SRM1 | Blind QC | 69.7028 | 100 | 75.0895 | 312 | 10 | |
| 1919013-DUP1 | Duplicate | 75.0583 | 100 | 69.3391 | 312 | 10 | |
| D19D060-01 | R1T6 | 69.3079 | 100 | 78.5914 | 26 | 10 | I |
| D19D060-02 | R2T1 | 78.5888 | 100 | 63.3304 | 1804 | 10 | |
| D19D060-03 | R3T7 | 63.1500 | 100 | 70.5069 | 520 | 10 | |
| D19D060-04 | R4T5b | 70.4549 | 100 | 78.0118 | 475 | 10 | |
| D19D060-05 | R6T1b | 77.9643 | 100 | 75.5773 | 382 | 10 | |
| D19D060-06 | R6T4b | 75.5391 | 100 | 65.2815 | 133 | 10 | |
| D19D060-08 | R6T12b | 65.2682 | 100 | 66.9681 | 335 | 10 | |
| D19D060-09 | R8T10 | 66.9346 | 100 | 76.4872 | 313 | 10 | |
| D19D060-10 | R9T5b | 76.4559 | 100 | 69.3359 | 88 | 10 | |
| D19D060-11 | R10T8 | 69.3271 | 100 | 78.8108 | 172 | 10 | |
| D19D060-12 | R11T4b | 78.7936 | 100 | 64.4502 | 319 | 10 | |
| D19D060-13 | DEEP WELL | 64.4183 | 100 | 64.4019 | 0 | 10 | U |
| D19D060-14 | EBLANK | 64.4019 | 100 | 74.3320 | 317 | 10 | |
| D19D060-15 | FIELD DUPE | 74.3003 | 100 | 70.4465 | 118 | 10 | |
| D19E005-01 | LF1 | 70.4347 | 100 | 72.6828 | 273 | 10 | |
| D19E005-02 | LF2 | 72.6555 | 100 | 62.1148 | 369 | 10 | |
| D19E005-03 | LF3 | 62.0779 | 100 | 70.9996 | 184 | 10 | |
| D19E005-04 | LF4 | 70.9812 | 100 | | | | |

Balance S/N: U07797

Oven S/N: U08230

| | | |
|------------------|--------|---------|
| SRM TV, mg/L | 201 | |
| SRM, mg/L | 207 | |
| % Recovery | 102.99 | % Range |
| Low Range, mg/L | 156 | 77.6 |
| High Range, mg/L | 246 | 122 |

| | |
|-----------|-----|
| Sample | 312 |
| Duplicate | 312 |
| %RPD | 0 |

Shelly Phillips

Total Dissolved Solids = (Dry Dish and Sample(g) - Dish Weight(g))*1000000/Sample Volume(mL)

Reviewed By: Km

Total Dissolved Solids - Filterable Residue - SM2540C

Work Orders: D19D060, D19E005

Date: 5-10-19
 Time: 0853
 Analyst: S. Phillips
 Batch: 1919013

104°C
 180°C
 180°C
 180°C
 180°C

| Oven | Date/Time IN | Date/Time OUT |
|--------------|--------------|---------------|
| Evaporation | 5-10-19/1530 | 5-11-19/0827 |
| Dry Cycle #1 | 5-11-19/0827 | 5-13-19/0707 |
| Dry Cycle #2 | 5-13-19/1260 | 5-14-19/10506 |
| Dry Cycle #3 | 5-14-19/0815 | 5-14-19/1110 |
| Dry Cycle #4 | 5-14-19/1405 | 5-15-19/10602 |

Quarter: 2Q19

CCR May 2019

SRM Source ID: DF91001

Lab Duplicate ID: D19D060-01

Oven Calibration Date: 1-8-19

* On 5-11-19 JCD observed oven temperature @ 180.6°C @ 0827

| | | | |
|-------|-------|-------|-------|
| 181.0 | 180.9 | 181.0 | 180.3 |
| SP | SP | SP | SP |

Observed Oven Temp °C
 Balance Check before weighings (Analyst Initials)

JCD verified 5-1-19
 SP

| Sample ID | Container | ID | Dish # | Dish Weight (g) | Sample Volume (mL) | Dry Dish and Sample | | | | Final Wgt (g) |
|--------------|-----------|------------|--------|-----------------|--------------------|---------------------|-------------|-------------|-------------|---------------|
| | | | | | | 1st Wgt (g) | 2nd Wgt (g) | 3rd Wgt (g) | 4th Wgt (g) | |
| | | Blank | A7 | 166.6884 | 100 | 166.6889 | 166.6886 | | | 166.6886 |
| 1919013-BLK1 | | Blind QC | A15 | 169.7028 | 100 | 169.7238 | 169.7235 | | | 169.7235 |
| 1919013-SRM1 | | Duplicate | Z4 | 75.0583 | 100 | 75.0898 | 75.0895 | | | 75.0895 |
| 1919013-DUP1 | A | R1T6 | A90 | 69.3079 | 100 | 69.3395 | 69.3391 | | | 69.3391 |
| D19D060-01 | A | R2T1 | Z1 | 78.5888 | 100 | 78.5924 | 78.5914 | 78.5914 | | 78.5914 |
| D19D060-02 | A | R3T7 | D2 | 63.1500 | 100 | 63.3325 | 63.3303 | 63.3304 | | 63.3304 |
| D19D060-03 | A | R4T5b | C10 | 70.4549 | 100 | 70.5095 | 70.5073 | 70.5069 | | 70.5069 |
| D19D060-04 | A | R6T1b | C5 | 77.9643 | 100 | 78.0170 | 78.0129 | 78.0118 | 78.0118 | 78.0118 |
| D19D060-05 | A | R6T4b | C2 | 75.5391 | 100 | 75.5801 | 75.5770 | 75.5773 | | 75.5773 |
| D19D060-06 | A | R6T12b | C1 | 65.2682 | 100 | 65.2819 | 65.2815 | | | 65.2815 |
| D19D060-08 | A | R8T10 | C6 | 166.9346 | 100 | 166.9714 | 166.9683 | 166.9681 | | 166.9681 |
| D19D060-09 | A | R9T5b | C7 | 76.4559 | 100 | 76.4898 | 76.4874 | 76.4872 | | 76.4872 |
| D19D060-10 | A | R10T8 | C7 | 69.3271 | 100 | 69.3376 | 69.3360 | 69.3359 | | 69.3359 |
| D19D060-11 | A | R11T4b | D3 | 78.7936 | 100 | 78.8131 | 78.8118 | 78.8110 | 78.8108 | 78.8108 |
| D19D060-12 | A | DEEP WELL | C8 | 64.4183 | 100 | 64.4513 | 64.4499 | 64.4502 | | 64.4502 |
| D19D060-13 | A | EBLANK | D6 | 64.4019 | 100 | 64.4020 | 64.4019 | | | 64.4019 |
| D19D060-14 | A | FIELD DUPE | D1 | 74.3003 | 100 | 74.3330 | 74.3320 | 74.3320 | | 74.3320 |
| D19D060-15 | A | LF1 | C9 | 70.4347 | 100 | 70.4485 | 70.4468 | 70.4465 | | 70.4465 |
| D19E005-01 | E | LF2 | C4 | 72.6555 | 100 | 72.6863 | 72.6831 | 72.6828 | | 72.6828 |
| D19E005-02 | E | LF3 | D5 | 62.0779 | 100 | 62.1175 | 62.1162 | 62.1149 | 62.1148 | 62.1148 |
| D19E005-03 | E | LF4 | A16 | 70.9812 | 100 | 71.0027 | 71.0009 | 70.9998 | 70.9996 | 70.9996 |
| D19E005-04 | E | | C3 | | | | | | | |

Balance Check after weighings (Analyst Initials)

SP

| | | | |
|----|----|----|----|
| SP | SP | SP | SP |
|----|----|----|----|

Balance S/N: U07797

Oven S/N: U08230

QAD: Km
 Reviewed By: TD: JB

Color (Apparent) - SM2120B

Work Order: D19D060

Quarter: 2Q19

Date: 5/7/19

Time: 11:30

Analyst: S. Phillips

Batch: 1919012

Duplicate Source: D19D060-01

| Sample ID | ID | Result | Dilution Factor | Final Result (PCU) | Reporting Limit (PCU) | Qual |
|--------------|------------|--------|--------------------|-----------------------|--------------------------|------|
| 1919012-BLK1 | Blank | 0 | 1 | 0 | 5 | U |
| 1919012-SRM1 | Blind QC | 25 | 1 | 25 | 5 | |
| 1919012-DUP1 | Duplicate | 50 | 1 | 50 | 5 | |
| D19D060-01 | R1T6 | 50 | 1 | 50 | 5 | |
| D19D060-02 | R2T1 | 5 | 1 | 5 | 5 | I |
| D19D060-03 | R3T7 | 55 | 1 | 55 | 5 | |
| D19D060-04 | R4T5b | 50 | 10 | 500 | 50 | |
| D19D060-05 | R6T1b | 0 | 1 | 0 | 5 | U |
| D19D060-06 | R6T4b | 13 | 1 | 13 | 5 | I |
| D19D060-08 | R6T12b | 50 | 1 | 50 | 5 | |
| D19D060-09 | R8T10 | 60 | 1 | 60 | 5 | |
| D19D060-10 | R9T5b | 10 | 1 | 10 | 5 | I |
| D19D060-11 | R10T8 | 0 | 1 | 0 | 5 | U |
| D19D060-12 | R11T4b | 10 | 1 | 10 | 5 | I |
| D19D060-13 | DEEP WELL | 0 | 1 | 0 | 5 | U |
| D19D060-14 | EBLANK | 0 | 1 | 0 | 5 | U |
| D19D060-15 | FIELD DUPE | 0 | 1 | 0 | 5 | U |

| | | |
|------------------|-------|---------|
| SRM TV, mg/L | 29 | |
| SRM, mg/L | 25 | |
| % Recovery | 86.81 | % Range |
| Low Range, mg/L | 17.3 | 60.3 |
| High Range, mg/L | 38.3 | 133.00 |

| | |
|-----------|----|
| Sample | 50 |
| Duplicate | 50 |
| %RPD | 0 |

Shelley Phillips

QA: km
Reviewed By: TD: JB

Color (Apparent) - SM2120B

Quarter: 2Q19

Work Order: D19D060

Wheel Calibration Date: 1-10-19
 Primary Stock Solution Used for Curve: DK71401
 Blind QC (SRM): DA91502
 Secondary Stock Solution Used for CCV: DD90201

Date: 5-7-19
 Time: 11:30
 Analyst: S. Phillips
 Batch: 1919012
 Duplicate Source: D19D060-01

| Initial Calibration Verification (Before each Run) | | | | | | |
|----------------------------------------------------|------------|-------|------------|-------|------------|-------|
| | Run 1 | | Run 2 | | Run 3 | |
| | Date/Time: | | Date/Time: | | Date/Time: | |
| | 5-7-19 | 11:30 | 5-9-19 | 08:21 | 5-9-19 | 07:50 |
| Conc. | Results | %D | Results | %D | Results | %D |
| 0 (ICB) | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 (ICV) | 5 | 0 | 5 | 0 | 5 | 0 |
| 20 (ICV) | 18 | 10 | 19 | 5 | 19 | 5 |
| 50 (ICV) | 50 | 0 | 50 | 0 | 50 | 0 |
| 70 (ICV) | 70 | 0 | 70 | 0 | 70 | 0 |

| Continuing Calibration Verification (Before and After each Run) | | | | | | | | |
|-----------------------------------------------------------------|--------------|--------|-------------|--------|--------------|--------|-------------|--------|
| | Run 1 Before | | Run 1 After | | Run 2 Before | | Run 2 After | |
| | Date/Time: | | Date/Time: | | Date/Time: | | Date/Time: | |
| | 5-7-19 | 11:36 | 5-7-19 | 11:59 | 5-8-19 | 08:29 | 5-8-19 | 08:42 |
| Blank (CCB) | Conc. | Result | Conc. | Result | Conc. | Result | Conc. | Result |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Std. (CCV) | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | Run 3 Before | | Run 3 After | | | | | |
| | Date/Time: | | Date/Time: | | | | | |
| | 5-9-19 | 07:57 | 5-9-19 | 08:27 | | | | |
| Blank (CCB) | Conc. | Result | Conc. | Result | | | | |
| | 0 | 0 | 0 | 0 | | | | |
| Std. (CCV) | 50 | 50 | 50 | 50 | | | | |

| %D for CCV | | | |
|------------|---|-----|---|
| 1B: | 0 | 2A: | 0 |
| 1A: | 0 | 3B: | 0 |
| 2B: | 0 | 3A: | 0 |

| Sample ID | Container | ID | Date | Time | pH (4-10) | Result | Dilution Factor | Final Result (CU) |
|-----------------------|----------------------|------------------|--------|-------|-----------|--------|-----------------|-------------------|
| -BLK1 | - | Blank | 5-8-19 | 08:31 | 5.74 | 0 | 1 | 0=5 U |
| -SRM1 | - | Blind QC | 5-7-19 | 11:40 | - | 25 | 1 | 25 |
| -DUP1 | A | Duplicate | 5-7-19 | 11:58 | 6.85 | 50 | 1 | 50 |
| D19D060-01 | A | R1T6 | 5-7-19 | 11:56 | 6.83 | 50 | 1 | 50 |
| D19D060-02 | A | R2T1 | 5-7-19 | 11:54 | 5.64 | 5 | 1 | 5 I |
| D19D060-03 | A | R3T7 | 5-8-19 | 08:33 | 6.40 | 55 | 1 | 55 |
| D19D060-04 | A | R4T5b | 5-8-19 | 08:39 | 6.48 | 50 | 10 | 500 |
| D19D060-05 | A | R6T1b | 5-9-19 | 08:03 | 5.33 | 0 | 1 | 0=5 U |
| D19D060-06 | A | R6T4b | 5-7-19 | 11:52 | 6.16 | 13 | 1 | 13 I |
| D19D060-07 | No Sample | R6T8b | | | | | | |
| D19D060-08 | A | R6T12b | 5-8-19 | 08:35 | 6.70 | 50 | 1 | 50 |
| D19D060-09 | A | R8T10 | 5-9-19 | 08:16 | 5.48 | 60 | 1 | 60 |
| D19D060-10 | A | R9T5b | 5-8-19 | 08:37 | 5.78 | 10 | 1 | 10 I |
| D19D060-11 | A | R10T8 | 5-9-19 | 08:18 | 6.17 | 0 | 1 | 0=5 U |
| D19D060-12 | A | R11T4b | 5-9-19 | 08:13 | 5.79 | 10 | 1 | 10 I |
| D19D060-13 | A | DEEP WELL | 5-9-19 | 08:06 | 7.74 | 0 | 1 | 0=5 U |
| D19D060-14 | A | EBLANK | 5-9-19 | 08:11 | 5.49 | 0 | 1 | 0=5 U |
| D19D060-15 | A | FIELD DUPE | 5-9-19 | 08:09 | 7.76 | 0 | 1 | 0=5 U |

well destroyed by 1999 truck post work

complete - *Shelly Phillips*

Reviewed By: *QA: PH TO: JB*

See pH "Instrument Calibration Log" for pH calibration brackets.

used for color analysis pHs

Instrument Calibration Log

Model Star A321

Serial Number G04101

Manufacturer: Thermo Orion

Date Purchased 9/8/14

Parameter: ^{color} pH/ORP/Cond

GRU Prop Tag# none

QTR: 2 Q19 :used manuf SOP for calibrations and FDEP 1100 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|------------|-----------------------------------------------|------|
| std D | 10.00, ID# DC.92803 exp 8-31-2020 | |
| Standard A | 7.00, ID# ^{DE} 83005, Exp 2/29/2020 | Su |
| Standard B | 10.00, ID# ^{DE} 83006, Exp 4/30/2019 | Su |
| Standard C | 4.00, ID# ^{DE} 82801, Exp 6/30/2020 | Su |

QC ID# DA91504
exp 10-31-2020

+/- 0.2

| Date | Time | STD A,B,C | STD Value | Instrument Response | Dev./ P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|---------|------|-----------|--------------------|---------------------|--------------|---------------------|-----------------|------------------|
| 4-15-19 | 0903 | A | 7.00 | 7.01 | +0.01/p | Yes | Int | JCD |
| 4-15-19 | 0909 | B | 10.00 | 10.05 | +0.05/p | Yes | Int | JCD |
| 4-15-19 | 0912 | C | 4.00 | 4.01 | +0.01/p | Yes | Int | JCD |
| 4-29-19 | 0925 | QC | 6.58 | 6.60 | Pass | | | JCD |
| 5-7-19 | 1145 | D | 10.00 | 10.05 | +0.05/p | NO | Cont | SP |
| 5-7-19 | 1149 | C | 4.00 | 4.03 | +0.03/p | NO | Cont | SP |
| 5-7-19 | 1200 | A | 7.00 | 7.03 | +0.03/p | NO | Cont | SP |
| 5-8-19 | 1430 | D | 10.00 | 10.05 | +0.05/p | NO | Cont | SP |
| 5-9-19 | 0821 | A | 7.00 | 7.03 | +0.03/p | NO | Cont | SP |
| 5-9-19 | 0822 | C | 4.00 | 4.02 | +0.02/p | NO | Cont | SP |
| 5-9-19 | 0824 | D | 10.00 ⁰ | 10.07 | +0.07/p | NO | Cont | SP |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

11. pe 98.9%

41

5-7-19 Color Analysis Standard Preparation

All color standards (except CK std) used stock soln. ID# DK71401
 *CK std used stock soln ID# DD90001, exp 6-30-2020

Before Balance CK 100797

| SN | wt(g) | Result(g) | % Error |
|----------|----------|-----------|---------|
| CP221104 | 1.000g | 0.9999 | |
| CP221105 | 50.0000g | 49.9995 | |

Final Volume

| Final Volume | SN | wt(g) | Result(g) | % Error |
|--------------|----------|--------|-----------|---------|
| 100 | CP221104 | 1.000 | 1.000 | |
| 100 | CP221105 | 50.000 | 50.001 | |

Standard True Value

| Standard True Value | ml of Stock Soln | Final Volume |
|---------------------|------------------|--------------|
| 0 | 0 | 100 |
| 5 | 1 | 100 |
| 10 | 2 | 100 |
| 15 | 3 | 100 |
| 20 | 4 | 100 |
| 30 | 6 | 100 |
| 40 | 8 | 100 |
| 50 | 10 | 100 |
| 60 | 12 | 100 |
| 70 | 14 | 100 |
| 80 | 16 | 100 |
| 90 | 18 | 100 |
| 100 | 20 | 100 |

After pipet check

| SN | pipet set (wt g) | wt (g) | % Error |
|----------|------------------|---------|---------|
| CP221104 | 1.000 | 1.0003 | |
| CP221105 | 2.000 | 1.9964 | |
| CP221105 | 50.0000g | 49.9995 | |

GC Prep ID# DA91502 Phenova lot# 8183-S1 exp 6-30-2020
 Added a clean 50 ml clean "A" flask with approx 30ml DI water and used a 10 ml clean "A" pipet to transfer exactly 10ml of std to flask then brought the volume of fluid to 50 ml mark with DI water

DA91502

WP Color QC

Expires 6/30/2020

Prepared By ** Vendor ** 1/15/2019

Lot # 8183-51

Date _____

Signed _____

Date 5-7-19

Signed

William Fishly

Read and Understood By _____

Oven, Analytical Balance, and Pipettor Calibration Worksheet

Work Order: D19D060 Quarter: 2019

Oven Calibration Check

Oven S/N: U08230

| Calibration at 180°C | |
|----------------------|------------------|
| Oven Thermometer | NIST Thermometer |
| Result | Result |
| 180.8 | 180.7 |
| Pass/Fail | Pass/Fail |
| Pass | Pass |

NIST Thermometer S/N: 2210484

| Calibration at 103-105°C | |
|--------------------------|------------------|
| Oven Thermometer | NIST Thermometer |
| Result | Result |
| 105.0 | 103.8 |
| Pass/Fail | Pass/Fail |
| Pass | Pass |

Date: 1-8-19
Analyst: S. Phillips/T.C. Davis

Remarks: Oven thermometer is fisher big digit - correction values written on meter.

Analytical Balance Calibration Check

Balance S/N: U07797

Date Weights Calibrated vs. NIST: 11-19-18

Date: 5-10-19
Analyst: S. Phillips

Pre-Weighing Set

| Date/Time | 100 mg | 1 g | 50 g | 100 g |
|--------------|--------|--------|---------|---------|
| 03-170635-4 | 0.1000 | 1.0000 | 49.9993 | 99.9989 |
| 03-172237-10 | 0.1000 | 0.9999 | 49.9995 | 99.9991 |
| 5-10-19/0840 | 0.1000 | 0.9999 | 49.9995 | 99.9992 |
| 5-10-19/1525 | 0.1000 | 0.9999 | 49.9995 | 99.9992 |
| 5-13-19/1101 | 0.1000 | 0.9999 | 49.9995 | 99.9993 |
| 5-14-19/0842 | 0.1000 | 0.9998 | 49.9994 | 99.9991 |
| 5-14-19/1250 | 0.0999 | 0.9999 | 49.9993 | 99.9980 |
| 5-15-19/0744 | 0.1000 | 0.9998 | 49.9993 | 99.9990 |

Post-Weighing Set

| Date/Time | 100 mg | 100 g |
|--------------|--------|---------|
| 03-170635-4 | 0.1000 | 99.9992 |
| 03-172306-17 | 0.1000 | 99.9992 |
| 5-10-19/1346 | 0.1000 | 99.9992 |
| 5-10-19/1530 | 0.0999 | 99.9992 |
| 5-13-19/1134 | 0.1000 | 99.9995 |
| 5-14-19/0812 | 0.1000 | 99.9993 |
| 5-14-19/1215 | 0.0999 | 99.9993 |
| 5-15-19/0805 | 0.1000 | 99.9989 |

Remarks:

Pipettor Calibration Check

| Before | Measured Wt | %Rerr |
|--------|-------------|-------|
| | | |
| | | |
| | | |

| After | Measured Wt | %Rerr |
|-------|-------------|-------|
| | | |
| | | |
| | | |

Remarks: See logbook page attached in folder for pipettor info.

040:TA-10:

August 15, 2019

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

RE: Project: D19G020
Pace Project No.: 35484169

Dear Mr. Boudreau:

Enclosed are the analytical results for sample(s) received by the laboratory on July 24, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

The report for 35484169 was revised to adjust the PQL for Lithium by EPA6020.

The report for 35484169 was revised to include all pages of COC.

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,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: D19G020

Pace Project No.: 35484169

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

Pennsylvania Certification IDs

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 #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

Arizona Certification# AZ0819

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

Maryland Certification: #346

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

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: D19G020

Pace Project No.: 35484169

Ormond Beach Certification IDs

North Dakota Certification #: R-216

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

Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: D19G020

Pace Project No.: 35484169

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|------------|--------|----------------|----------------|
| 35484169001 | D19G020-01 | Water | 07/16/19 12:55 | 07/24/19 12:00 |
| 35484169002 | D19G020-02 | Water | 07/17/19 09:02 | 07/24/19 12:00 |
| 35484169003 | D19G020-03 | Water | 07/17/19 11:25 | 07/24/19 12:00 |
| 35484169004 | D19G020-04 | Water | 07/17/19 10:30 | 07/24/19 12:00 |
| 35484169005 | D19G020-05 | Water | 07/16/19 14:22 | 07/24/19 12:00 |
| 35484169006 | D19G020-06 | Water | 07/17/19 13:10 | 07/24/19 12:00 |
| 35484169007 | D19G020-07 | Water | 07/18/19 08:00 | 07/24/19 12:00 |
| 35484169008 | D19G020-08 | Water | 07/18/19 09:48 | 07/24/19 12:00 |
| 35484169009 | D19G020-09 | Water | 07/16/19 16:43 | 07/24/19 12:00 |
| 35484169010 | D19G020-10 | Water | 07/16/19 15:30 | 07/24/19 12:00 |
| 35484169011 | D19G020-11 | Water | 07/19/19 12:50 | 07/24/19 12:00 |
| 35484169012 | D19G020-12 | Water | 07/19/19 10:45 | 07/24/19 12:00 |
| 35484169013 | D19G020-13 | Water | 07/19/19 09:50 | 07/24/19 12:00 |
| 35484169014 | D19G020-14 | Water | 07/18/19 10:32 | 07/24/19 12:00 |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: D19G020
Pace Project No.: 35484169

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|------------|--------------------------|----------|-------------------|------------|
| 35484169001 | D19G020-01 | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35484169002 | D19G020-02 | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35484169003 | D19G020-03 | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35484169004 | D19G020-04 | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35484169005 | D19G020-05 | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35484169006 | D19G020-06 | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35484169007 | D19G020-07 | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| 35484169008 | D19G020-08 | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: D19G020

Pace Project No.: 35484169

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|------------|--------------------------|----------|-------------------|------------|
| 35484169009 | D19G020-09 | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 300.0 | JDM | 3 | PASI-O |
| | | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| 35484169010 | D19G020-10 | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| 35484169011 | D19G020-11 | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 35484169012 | D19G020-12 | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 6020B | CSW | 4 | PASI-GA |
| 35484169013 | D19G020-13 | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| 35484169014 | D19G020-14 | EPA 904.0 | JLW | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 6020B | CSW | 4 | PASI-GA |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | JLW | 1 | PASI-PA |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-01 **Lab ID: 35484169001** Collected: 07/16/19 12:55 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|---------------|-------|-------|-------|----|----------------|----------------|------------|------|
| 6020B MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | | | |
| Antimony | 1.8 I | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 16:09 | 7440-36-0 | |
| Boron | 298 | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 16:09 | 7440-42-8 | |
| Lithium | 5.4 I | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 16:09 | 7439-93-2 | |
| Thallium | 0.22 I | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 16:09 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 6.7 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 11:21 | 16887-00-6 | |
| Fluoride | 0.092 | mg/L | 0.050 | 0.034 | 1 | | 08/07/19 11:21 | 16984-48-8 | |
| Sulfate | 31.9 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 11:21 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-02 **Lab ID: 35484169002** Collected: 07/17/19 09:02 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|-------|-------|----|----------------|----------------|------------|------|
| 6020B MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 16:32 | 7440-36-0 | |
| Boron | 58.2 | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 16:32 | 7440-42-8 | |
| Lithium | 1.8 I | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 16:32 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 16:32 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 37.1 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 11:43 | 16887-00-6 | |
| Fluoride | 0.34 | mg/L | 0.050 | 0.034 | 1 | | 08/07/19 11:43 | 16984-48-8 | |
| Sulfate | 36.9 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 11:43 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-03 **Lab ID: 35484169003** Collected: 07/17/19 11:25 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|-------|-------|----|----------------|----------------|------------|------|
| 6020B MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 16:43 | 7440-36-0 | |
| Boron | 2920 | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 16:43 | 7440-42-8 | |
| Lithium | 0.78 U | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 16:43 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 16:43 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 16.8 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 11:47 | 16887-00-6 | |
| Fluoride | 0.034 U | mg/L | 0.050 | 0.034 | 1 | | 08/07/19 11:47 | 16984-48-8 | |
| Sulfate | 70.9 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 11:47 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-04 **Lab ID: 35484169004** Collected: 07/17/19 10:30 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|---------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|-------|
| 6020B MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 16:38 | 7440-36-0 | |
| Boron | 654 | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 16:38 | 7440-42-8 | |
| Lithium | 11.4 I | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 16:38 | 7439-93-2 | |
| Thallium | 0.16 I | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 16:38 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 3.7 I | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 12:10 | 16887-00-6 | |
| Fluoride | 0.11 | mg/L | 0.050 | 0.034 | 1 | | 08/07/19 12:10 | 16984-48-8 | |
| Sulfate | 71.6 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 12:10 | 14808-79-8 | J(M1) |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-05 **Lab ID: 35484169005** Collected: 07/16/19 14:22 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|-------|-------|----|----------------|----------------|------------|------|
| 6020B MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 16:15 | 7440-36-0 | |
| Boron | 21.3 I | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 16:15 | 7440-42-8 | |
| Lithium | 0.78 U | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 16:15 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 16:15 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 19.0 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 15:54 | 16887-00-6 | |
| Fluoride | 0.24 | mg/L | 0.050 | 0.034 | 1 | | 08/07/19 15:54 | 16984-48-8 | |
| Sulfate | 6.1 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 15:54 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-06 **Lab ID: 35484169006** Collected: 07/17/19 13:10 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|-------|-------|----|----------------|----------------|------------|------|
| 6020B MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 16:49 | 7440-36-0 | |
| Boron | 35.2 I | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 16:49 | 7440-42-8 | |
| Lithium | 0.78 U | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 16:49 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 16:49 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 3.6 I | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 16:17 | 16887-00-6 | |
| Fluoride | 0.43 | mg/L | 0.050 | 0.034 | 1 | | 08/07/19 16:17 | 16984-48-8 | |
| Sulfate | 10.4 | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 16:17 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-07 **Lab ID: 35484169007** Collected: 07/18/19 08:00 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|-------|-------|----|----------------|----------------|------------|------|
| 6020B MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 16:55 | 7440-36-0 | |
| Boron | 19.6 I | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 16:55 | 7440-42-8 | |
| Lithium | 1.1 I | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 16:55 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 16:55 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 | | | | | | | | | |
| Chloride | 2.5 U | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 16:39 | 16887-00-6 | |
| Fluoride | 0.19 | mg/L | 0.050 | 0.034 | 1 | | 08/07/19 16:39 | 16984-48-8 | |
| Sulfate | 2.9 I | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 16:39 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-08 **Lab ID: 35484169008** Collected: 07/18/19 09:48 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020B MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 17:12 | 7440-36-0 | |
| Boron | 11.7 I | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 17:12 | 7440-42-8 | |
| Lithium | 0.78 U | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 17:12 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 17:12 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 2.5 U | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 17:01 | 16887-00-6 | |
| Fluoride | 0.26 | mg/L | 0.050 | 0.034 | 1 | | 08/07/19 17:01 | 16984-48-8 | |
| Sulfate | 2.5 U | mg/L | 5.0 | 2.5 | 1 | | 08/07/19 17:01 | 14808-79-8 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-09 **Lab ID: 35484169009** Collected: 07/16/19 16:43 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|------|-------|----|----------------|----------------|-----------|------|
| 6020B MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 16:26 | 7440-36-0 | |
| Boron | 20.3 I | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 16:26 | 7440-42-8 | |
| Lithium | 0.78 U | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 16:26 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 16:26 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-10 **Lab ID: 35484169010** Collected: 07/16/19 15:30 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|------------------------|----------------|---------------------------------------------------------------|------|-------|----|----------------|----------------|-----------|------|
| 6020B MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 16:20 | 7440-36-0 | |
| Boron | 26.2 I | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 16:20 | 7440-42-8 | |
| Lithium | 0.78 U | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 16:20 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 16:20 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-11 **Lab ID: 35484169011** Collected: 07/19/19 12:50 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|------|-------|----|----------------|----------------|-----------|------|
| 6020B MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 17:35 | 7440-36-0 | |
| Boron | 18.5 I | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 17:35 | 7440-42-8 | |
| Lithium | 0.96 I | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 17:35 | 7439-93-2 | |
| Thallium | 0.083 I | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 17:35 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-12 **Lab ID: 35484169012** Collected: 07/19/19 10:45 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|------------------------|----------------|---------------------------------------------------------------|------|-------|----|----------------|----------------|-----------|------|
| 6020B MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 17:29 | 7440-36-0 | |
| Boron | 18.2 I | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 17:29 | 7440-42-8 | |
| Lithium | 0.78 U | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 17:29 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 17:29 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-13 **Lab ID: 35484169013** Collected: 07/19/19 09:50 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|------------------------|----------------|---------------------------------------------------------------|------|-------|----|----------------|----------------|-----------|------|
| 6020B MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 17:23 | 7440-36-0 | |
| Boron | 322 | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 17:23 | 7440-42-8 | |
| Lithium | 0.78 U | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 17:23 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 17:23 | 7440-28-0 | |

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ANALYTICAL RESULTS

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-14 **Lab ID: 35484169014** Collected: 07/18/19 10:32 Received: 07/24/19 12:00 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|------------------------|----------------|---------------------------------------------------------------|------|-------|----|----------------|----------------|-----------|------|
| 6020B MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3005A | | | | | | | |
| Antimony | 0.27 U | ug/L | 5.0 | 0.27 | 1 | 07/29/19 08:53 | 07/30/19 17:18 | 7440-36-0 | |
| Boron | 4.9 U | ug/L | 40.0 | 4.9 | 1 | 07/29/19 08:53 | 07/30/19 17:18 | 7440-42-8 | |
| Lithium | 0.78 U | ug/L | 40.0 | 0.78 | 1 | 07/29/19 08:53 | 07/30/19 17:18 | 7439-93-2 | |
| Thallium | 0.052 U | ug/L | 1.0 | 0.052 | 1 | 07/29/19 08:53 | 07/30/19 17:18 | 7440-28-0 | |

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QUALITY CONTROL DATA

Project: D19G020

Pace Project No.: 35484169

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|
| QC Batch: | 32603 | Analysis Method: | EPA 6020B |
| QC Batch Method: | EPA 3005A | Analysis Description: | 6020B MET |
| Associated Lab Samples: | 35484169001, 35484169002, 35484169003, 35484169004, 35484169005, 35484169006, 35484169007, 35484169008, 35484169009, 35484169010, 35484169011, 35484169012, 35484169013, 35484169014 | | |

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|
| METHOD BLANK: | 146782 | Matrix: | Water |
| Associated Lab Samples: | 35484169001, 35484169002, 35484169003, 35484169004, 35484169005, 35484169006, 35484169007, 35484169008, 35484169009, 35484169010, 35484169011, 35484169012, 35484169013, 35484169014 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Antimony | ug/L | 0.27 U | 5.0 | 0.27 | 07/30/19 15:00 | |
| Boron | ug/L | 4.9 U | 40.0 | 4.9 | 07/30/19 15:00 | |
| Lithium | ug/L | 0.78 U | 40.0 | 0.78 | 07/30/19 15:00 | |
| Thallium | ug/L | 0.052 U | 1.0 | 0.052 | 07/30/19 15:00 | |

LABORATORY CONTROL SAMPLE: 146783

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | ug/L | 100 | 107 | 107 | 80-120 | |
| Boron | ug/L | 1000 | 1050 | 105 | 80-120 | |
| Lithium | ug/L | 100 | 102 | 102 | 80-120 | |
| Thallium | ug/L | 100 | 100 | 100 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 146784 146785

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|------|
| | | 2621184008 | Spike Conc. | Spike Conc. | Result | | | | | | |
| Antimony | ug/L | ND | 100 | 100 | 108 | 110 | 108 | 110 | 75-125 | 2 | 20 |
| Boron | ug/L | 49.3 | 1000 | 1000 | 1090 | 1140 | 104 | 109 | 75-125 | 4 | 20 |
| Lithium | ug/L | 59.8 | 100 | 100 | 165 | 165 | 106 | 105 | 75-125 | 0 | 20 |
| Thallium | ug/L | ND | 100 | 100 | 102 | 102 | 102 | 102 | 75-125 | 0 | 20 |

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QUALITY CONTROL DATA

Project: D19G020
Pace Project No.: 35484169

QC Batch: 560356 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35484169001, 35484169002

METHOD BLANK: 3041546 Matrix: Water
Associated Lab Samples: 35484169001, 35484169002

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 08/07/19 10:15 | |
| Fluoride | mg/L | 0.034 U | 0.050 | 0.034 | 08/07/19 10:15 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 08/07/19 10:15 | |

LABORATORY CONTROL SAMPLE: 3041547

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 47.7 | 95 | 90-110 | |
| Fluoride | mg/L | 5 | 4.9 | 98 | 90-110 | |
| Sulfate | mg/L | 50 | 47.4 | 95 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3042712 3042713

| Parameter | Units | 35486191001 | | 3042712 | | 3042713 | | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|----------------|-----------------|-----------|------------|----------|--------------|-----|---------|------|
| | | Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | | | | |
| Chloride | mg/L | 5.0 I | 50 | 50 | 52.7 | 52.9 | 96 | 96 | 0 | 20 | |
| Fluoride | mg/L | 0.034 U | 5 | 5 | 4.8 | 4.8 | 97 | 97 | 0 | 20 | |
| Sulfate | mg/L | 2.5 U | 50 | 50 | 47.1 | 47.2 | 91 | 91 | 0 | 20 | |

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QUALITY CONTROL DATA

Project: D19G020
Pace Project No.: 35484169

QC Batch: 560357 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35484169003, 35484169004, 35484169005, 35484169006, 35484169007, 35484169008

METHOD BLANK: 3041548 Matrix: Water
Associated Lab Samples: 35484169003, 35484169004, 35484169005, 35484169006, 35484169007, 35484169008

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 08/07/19 11:02 | |
| Fluoride | mg/L | 0.034 U | 0.050 | 0.034 | 08/07/19 11:02 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 08/07/19 11:02 | |

LABORATORY CONTROL SAMPLE: 3041549

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 48.7 | 97 | 90-110 | |
| Fluoride | mg/L | 5 | 5.0 | 100 | 90-110 | |
| Sulfate | mg/L | 50 | 47.7 | 95 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3042704 3042705

| Parameter | Units | 35484169004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|-------------|
| Chloride | mg/L | 3.7 I | 50 | 50 | 52.1 | 52.1 | 97 | 97 | 90-110 | 0 | 20 | |
| Fluoride | mg/L | 0.11 | 5 | 5 | 5.1 | 5.1 | 100 | 100 | 90-110 | 0 | 20 | |
| Sulfate | mg/L | 71.6 | 50 | 50 | 130 | 130 | 116 | 116 | 90-110 | 0 | 20 | J(M1), L |

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-01 **Lab ID: 35484169001** Collected: 07/16/19 12:55 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 2.11 ± 0.903 (0.875) C:NA T:93% | pCi/L | 08/05/19 14:27 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.826U ± 0.448 (0.826) C:70% T:92% | pCi/L | 08/02/19 15:42 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.90 ± 1.35 (1.70) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-02 **Lab ID: 35484169002** Collected: 07/17/19 09:02 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.11 ± 0.654 (0.786) C:NA T:96% | pCi/L | 08/05/19 14:27 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.820U ± 0.446 (0.820) C:77% T:81% | pCi/L | 08/02/19 15:42 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.90 ± 1.10 (1.61) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-03 **Lab ID: 35484169003** Collected: 07/17/19 11:25 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|--------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.66 ± 0.798 (0.734) C:NA T:80% | pCi/L | 08/05/19 14:27 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.02 ± 0.426 (0.680) C:75% T:96% | pCi/L | 08/02/19 15:42 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.68 ± 1.22 (1.41) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-04 **Lab ID: 35484169004** Collected: 07/17/19 10:30 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|--------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 2.22 ± 0.932 (0.890) C:NA T:87% | pCi/L | 08/05/19 14:27 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.05 ± 0.461 (0.759) C:76% T:87% | pCi/L | 08/02/19 15:42 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 3.27 ± 1.39 (1.65) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-05 **Lab ID: 35484169005** Collected: 07/16/19 14:22 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.591U ± 0.436 (0.591) C:NA T:95% | pCi/L | 08/05/19 14:27 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.721U ± 0.380 (0.721) C:80% T:86% | pCi/L | 08/02/19 15:46 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.31U ± 0.816 (1.31) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-06 **Lab ID: 35484169006** Collected: 07/17/19 13:10 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.822 ± 0.545 (0.636) C:NA T:93% | pCi/L | 08/05/19 14:27 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.657U ± 0.314 (0.657) C:80% T:93% | pCi/L | 08/02/19 15:46 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.29U ± 0.859 (1.29) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-07 **Lab ID: 35484169007** Collected: 07/18/19 08:00 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.22 ± 0.828 (1.18) C:NA T:87% | pCi/L | 08/05/19 14:27 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.861 ± 0.369 (0.578) C:76% T:91% | pCi/L | 08/02/19 15:43 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.08 ± 1.20 (1.76) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-08 **Lab ID: 35484169008** Collected: 07/18/19 09:48 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.26U ± 0.634 (1.26) C:NA T:89% | pCi/L | 08/05/19 14:40 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.734 ± 0.366 (0.622) C:78% T:89% | pCi/L | 08/02/19 15:43 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.88U ± 1.000 (1.88) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-09 **Lab ID: 35484169009** Collected: 07/16/19 16:43 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.49 ± 0.749 (0.815) C:NA T:90% | pCi/L | 08/05/19 14:40 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.698U ± 0.359 (0.698) C:77% T:86% | pCi/L | 08/02/19 15:43 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.97 ± 1.11 (1.51) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-10 **Lab ID: 35484169010** Collected: 07/16/19 15:30 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.881U ± 0.546 (0.881) C:NA T:93% | pCi/L | 08/05/19 14:40 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.701U ± 0.333 (0.701) C:79% T:79% | pCi/L | 08/02/19 15:43 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.58U ± 0.879 (1.58) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-11 **Lab ID: 35484169011** Collected: 07/19/19 12:50 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.29U ± 0.869 (1.29) C:NA T:85% | pCi/L | 08/05/19 14:40 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.533U ± 0.294 (0.533) C:78% T:96% | pCi/L | 08/02/19 15:43 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.82U ± 1.16 (1.82) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-12 **Lab ID: 35484169012** Collected: 07/19/19 10:45 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.507U ± 0.359 (0.507) C:NA T:94% | pCi/L | 08/05/19 14:40 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.667U ± 0.321 (0.667) C:76% T:88% | pCi/L | 08/02/19 15:43 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.17U ± 0.680 (1.17) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-13 **Lab ID: 35484169013** Collected: 07/19/19 09:50 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|--------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.04 ± 0.603 (0.643) C:NA T:91% | pCi/L | 08/05/19 14:40 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.03 ± 0.418 (0.649) C:76% T:92% | pCi/L | 08/02/19 15:43 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.07 ± 1.02 (1.29) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

Sample: D19G020-14 **Lab ID: 35484169014** Collected: 07/18/19 10:32 Received: 07/24/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|-----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.855U ± 0.580 (0.855) C:NA T:92% | pCi/L | 08/05/19 14:40 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.676U ± 0.365 (0.676) C:78% T:86% | pCi/L | 08/02/19 15:44 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.53U ± 0.945 (1.53) | pCi/L | 08/06/19 13:04 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: D19G020

Pace Project No.: 35484169

QC Batch: 354058

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Associated Lab Samples: 35484169001, 35484169002, 35484169003, 35484169004, 35484169005, 35484169006, 35484169007, 35484169008, 35484169009, 35484169010, 35484169011, 35484169012, 35484169013, 35484169014

METHOD BLANK: 1720076

Matrix: Water

Associated Lab Samples: 35484169001, 35484169002, 35484169003, 35484169004, 35484169005, 35484169006, 35484169007, 35484169008, 35484169009, 35484169010, 35484169011, 35484169012, 35484169013, 35484169014

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|----------------------------------|-------|----------------|------------|
| Radium-226 | 0.191 ± 0.331 (0.591) C:NA T:80% | pCi/L | 08/05/19 14:27 | |

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: D19G020

Pace Project No.: 35484169

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|
| QC Batch: | 354061 | Analysis Method: | EPA 904.0 |
| QC Batch Method: | EPA 904.0 | Analysis Description: | 904.0 Radium 228 |
| Associated Lab Samples: | 35484169001, 35484169002, 35484169003, 35484169004, 35484169005, 35484169006, 35484169007, 35484169008, 35484169009, 35484169010, 35484169011, 35484169012, 35484169013, 35484169014 | | |

| | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|
| METHOD BLANK: | 1720087 | Matrix: | Water |
| Associated Lab Samples: | 35484169001, 35484169002, 35484169003, 35484169004, 35484169005, 35484169006, 35484169007, 35484169008, 35484169009, 35484169010, 35484169011, 35484169012, 35484169013, 35484169014 | | |

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.711 ± 0.397 (0.705) C:76% T:79% | pCi/L | 08/02/19 15:46 | |

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.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: D19G020
Pace Project No.: 35484169

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.

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.

LABORATORIES

PASI-GA Pace Analytical Services - Atlanta, GA

PASI-O Pace Analytical Services - Ormond Beach

PASI-PA Pace Analytical Services - Greensburg

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: D19G020
Pace Project No.: 35484169

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|------------|--------------------------|----------|-------------------|------------------|
| 35484169001 | D19G020-01 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169002 | D19G020-02 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169003 | D19G020-03 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169004 | D19G020-04 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169005 | D19G020-05 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169006 | D19G020-06 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169007 | D19G020-07 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169008 | D19G020-08 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169009 | D19G020-09 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169010 | D19G020-10 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169011 | D19G020-11 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169012 | D19G020-12 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169013 | D19G020-13 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169014 | D19G020-14 | EPA 3005A | 32603 | EPA 6020B | 32630 |
| 35484169001 | D19G020-01 | EPA 903.1 | 354058 | | |
| 35484169002 | D19G020-02 | EPA 903.1 | 354058 | | |
| 35484169003 | D19G020-03 | EPA 903.1 | 354058 | | |
| 35484169004 | D19G020-04 | EPA 903.1 | 354058 | | |
| 35484169005 | D19G020-05 | EPA 903.1 | 354058 | | |
| 35484169006 | D19G020-06 | EPA 903.1 | 354058 | | |
| 35484169007 | D19G020-07 | EPA 903.1 | 354058 | | |
| 35484169008 | D19G020-08 | EPA 903.1 | 354058 | | |
| 35484169009 | D19G020-09 | EPA 903.1 | 354058 | | |
| 35484169010 | D19G020-10 | EPA 903.1 | 354058 | | |
| 35484169011 | D19G020-11 | EPA 903.1 | 354058 | | |
| 35484169012 | D19G020-12 | EPA 903.1 | 354058 | | |
| 35484169013 | D19G020-13 | EPA 903.1 | 354058 | | |
| 35484169014 | D19G020-14 | EPA 903.1 | 354058 | | |
| 35484169001 | D19G020-01 | EPA 904.0 | 354061 | | |
| 35484169002 | D19G020-02 | EPA 904.0 | 354061 | | |
| 35484169003 | D19G020-03 | EPA 904.0 | 354061 | | |
| 35484169004 | D19G020-04 | EPA 904.0 | 354061 | | |
| 35484169005 | D19G020-05 | EPA 904.0 | 354061 | | |
| 35484169006 | D19G020-06 | EPA 904.0 | 354061 | | |
| 35484169007 | D19G020-07 | EPA 904.0 | 354061 | | |
| 35484169008 | D19G020-08 | EPA 904.0 | 354061 | | |
| 35484169009 | D19G020-09 | EPA 904.0 | 354061 | | |
| 35484169010 | D19G020-10 | EPA 904.0 | 354061 | | |
| 35484169011 | D19G020-11 | EPA 904.0 | 354061 | | |
| 35484169012 | D19G020-12 | EPA 904.0 | 354061 | | |
| 35484169013 | D19G020-13 | EPA 904.0 | 354061 | | |
| 35484169014 | D19G020-14 | EPA 904.0 | 354061 | | |
| 35484169001 | D19G020-01 | Total Radium Calculation | 355341 | | |
| 35484169002 | D19G020-02 | Total Radium Calculation | 355341 | | |
| 35484169003 | D19G020-03 | Total Radium Calculation | 355341 | | |
| 35484169004 | D19G020-04 | Total Radium Calculation | 355341 | | |
| 35484169005 | D19G020-05 | Total Radium Calculation | 355341 | | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D19G020

Pace Project No.: 35484169

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|------------|--------------------------|----------|-------------------|------------------|
| 35484169006 | D19G020-06 | Total Radium Calculation | 355341 | | |
| 35484169007 | D19G020-07 | Total Radium Calculation | 355341 | | |
| 35484169008 | D19G020-08 | Total Radium Calculation | 355341 | | |
| 35484169009 | D19G020-09 | Total Radium Calculation | 355341 | | |
| 35484169010 | D19G020-10 | Total Radium Calculation | 355341 | | |
| 35484169011 | D19G020-11 | Total Radium Calculation | 355341 | | |
| 35484169012 | D19G020-12 | Total Radium Calculation | 355341 | | |
| 35484169013 | D19G020-13 | Total Radium Calculation | 355341 | | |
| 35484169014 | D19G020-14 | Total Radium Calculation | 355341 | | |
| 35484169001 | D19G020-01 | EPA 300.0 | 560356 | | |
| 35484169002 | D19G020-02 | EPA 300.0 | 560356 | | |
| 35484169003 | D19G020-03 | EPA 300.0 | 560357 | | |
| 35484169004 | D19G020-04 | EPA 300.0 | 560357 | | |
| 35484169005 | D19G020-05 | EPA 300.0 | 560357 | | |
| 35484169006 | D19G020-06 | EPA 300.0 | 560357 | | |
| 35484169007 | D19G020-07 | EPA 300.0 | 560357 | | |
| 35484169008 | D19G020-08 | EPA 300.0 | 560357 | | |

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER
Deerhaven Generating Station
D19G020

WO# : 35484169



35484169

SENDING LABORATORY:

Gainesville Regional Utilities
 Deerhaven Generating Station
 10001 NW 13th Street
 Gainesville, FL 32653
 Phone: 352-334-3434
 Fax: 352-334-3149
 Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Pace Analytical
 8 East Tower Circle
 Ormond Beach, FL 32174
 Phone : (386) 672-5668
 Fax: (386) 673-4001

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------------|-----------------|---------------------------------|----------|
| Sample Name: LF-1 | | | |
| Sample ID: D19G020-01 | Water | Sampled: 16-Jul-19 12:55 | |
| D_Anions - Fluoride | 13-Aug-19 12:55 | | |
| D_Anions - Sulfates | 13-Aug-19 12:55 | | |
| D_Antimony by 6020 | 12-Jan-20 12:55 | | |
| D_Boron by 6020 | 12-Jan-20 12:55 | | |
| D_Lithium by 6020 | 12-Jan-20 12:55 | | |
| D_Radium226+228_Combined | 08-Jan-20 12:55 | | |
| D_Thallium by 6020 | 12-Jan-20 12:55 | | |
| D_Anions - Chlorides | 13-Aug-19 12:55 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: LF-2 | | | |
| Sample ID: D19G020-02 | Water | Sampled: 17-Jul-19 09:02 | |
| D_Anions - Fluoride | 14-Aug-19 09:02 | | |
| D_Thallium by 6020 | 13-Jan-20 09:02 | | |
| D_Radium226+228_Combined | 09-Jan-20 09:02 | | |
| D_Lithium by 6020 | 13-Jan-20 09:02 | | |
| D_Boron by 6020 | 13-Jan-20 09:02 | | |
| D_Anions - Sulfates | 14-Aug-19 09:02 | | |
| D_Anions - Chlorides | 14-Aug-19 09:02 | | |
| D_Antimony by 6020 | 13-Jan-20 09:02 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |

Shipped via Fed Ex

Released By: *K. Brakefield* Date: *7/22/19* Received By: *AS/Pace* Date: *7/23/19* *12ed*
09/11/19

Released By: _____ Date: _____ Received By: _____ Date: _____



SUBCONTRACT ORDER
Deerhaven Generating Station
D19G020

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------------|-----------------|---------------------------------|----------|
| Sample Name: LF-3 | | | |
| Sample ID: D19G020-03 | Water | Sampled: 17-Jul-19 11:25 | |
| D_Boron by 6020 | 13-Jan-20 11:25 | | |
| D_Radium226+228_Combined | 09-Jan-20 11:25 | | |
| D_Thallium by 6020 | 13-Jan-20 11:25 | | |
| D_Lithium by 6020 | 13-Jan-20 11:25 | | |
| D_Anions - Sulfates | 14-Aug-19 11:25 | | |
| D_Anions - Chlorides | 14-Aug-19 11:25 | | |
| D_Anions - Fluoride | 14-Aug-19 11:25 | | |
| D_Antimony by 6020 | 13-Jan-20 11:25 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: LF-4 | | | |
| Sample ID: D19G020-04 | Water | Sampled: 17-Jul-19 10:30 | |
| D_Antimony by 6020 | 13-Jan-20 10:30 | | |
| D_Anions - Chlorides | 14-Aug-19 10:30 | | |
| D_Thallium by 6020 | 13-Jan-20 10:30 | | |
| D_Radium226+228_Combined | 09-Jan-20 10:30 | | |
| D_Boron by 6020 | 13-Jan-20 10:30 | | |
| D_Anions - Sulfates | 14-Aug-19 10:30 | | |
| D_Anions - Fluoride | 14-Aug-19 10:30 | | |
| D_Lithium by 6020 | 13-Jan-20 10:30 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: SIS-1 | | | |
| Sample ID: D19G020-05 | Water | Sampled: 16-Jul-19 14:22 | |
| D_Lithium by 6020 | 12-Jan-20 14:22 | | |
| D_Anions - Chlorides | 13-Aug-19 14:22 | | |
| D_Radium226+228_Combined | 08-Jan-20 14:22 | | |
| D_Thallium by 6020 | 12-Jan-20 14:22 | | |
| D_Boron by 6020 | 12-Jan-20 14:22 | | |
| D_Antimony by 6020 | 12-Jan-20 14:22 | | |
| D_Anions - Fluoride | 13-Aug-19 14:22 | | |
| D_Anions - Sulfates | 13-Aug-19 14:22 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |

Shipped via FedEx

| | | | |
|----------------------|----------------|---------------|----------------------------|
| <i>R. Brahefield</i> | <i>7/22/19</i> | <i>AS/MUC</i> | <i>7/23/19 1200</i> |
| Released By | Date | Received By | Date |
| | | | <i>5370</i> <i>2600</i> |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19G020

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

Sample Name: SIS-2
Sample ID: D19G020-06 **Water** **Sampled: 17-Jul-19 13:10**

- D_Radium226+228_Combined 09-Jan-20 13:10
- D_Anions - Chlorides 14-Aug-19 13:10
- D_Anions - Fluoride 14-Aug-19 13:10
- D_Anions - Sulfates 14-Aug-19 13:10
- D_Antimony by 6020 13-Jan-20 13:10
- D_Boron by 6020 13-Jan-20 13:10
- D_Thallium by 6020 13-Jan-20 13:10
- D_Lithium by 6020 13-Jan-20 13:10

Containers Supplied:

- D_HDPE, HNO3 pH<2 - 250mL extra (B)
- D_HDPE, Chill @<6*C - 250mL (C)
- D_HDPE, HNO3 pH<2 - 2000mL (D)

Sample Name: SIS-3
Sample ID: D19G020-07 **Water** **Sampled: 18-Jul-19 08:00**

- D_Anions - Sulfates 15-Aug-19 08:00
- D_Lithium by 6020 14-Jan-20 08:00
- D_Radium226+228_Combined 10-Jan-20 08:00
- D_Thallium by 6020 14-Jan-20 08:00
- D_Boron by 6020 14-Jan-20 08:00
- D_Antimony by 6020 14-Jan-20 08:00
- D_Anions - Fluoride 15-Aug-19 08:00
- D_Anions - Chlorides 15-Aug-19 08:00

Containers Supplied:

- D_HDPE, HNO3 pH<2 - 250mL extra (B)
- D_HDPE, Chill @<6*C - 250mL (C)
- D_HDPE, HNO3 pH<2 - 2000mL (D)

Sample Name: SIS-4
Sample ID: D19G020-08 **Water** **Sampled: 18-Jul-19 09:48**

- D_Thallium by 6020 14-Jan-20 09:48
- D_Antimony by 6020 14-Jan-20 09:48
- D_Anions - Sulfates 15-Aug-19 09:48
- D_Anions - Fluoride 15-Aug-19 09:48
- D_Radium226+228_Combined 10-Jan-20 09:48
- D_Lithium by 6020 14-Jan-20 09:48
- D_Anions - Chlorides 15-Aug-19 09:48
- D_Boron by 6020 14-Jan-20 09:48

Containers Supplied:

- D_HDPE, HNO3 pH<2 - 250mL extra (B)
- D_HDPE, Chill @<6*C - 250mL (C)
- D_HDPE, HNO3 pH<2 - 2000mL (D)

Shipped via FedEx

| | | | | |
|---------------------|----------------|---------------|----------------|-------------|
| <i>R. Branfield</i> | <i>7/22/19</i> | <i>AS/PLC</i> | <i>7/23/19</i> | <i>iree</i> |
| Released By | Date | Received By | Date | |

26.0 T-349

| | | | |
|-------------|------|-------------|------|
| | | | |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19G020

| Analysis | Expires | Laboratory ID | Comments |
|--------------------------------------|-----------------|---------------------------------|----------|
| Sample Name: MWI-4-5 (R4T5B) | | | |
| Sample ID: D19G020-09 | Water | Sampled: 16-Jul-19 16:43 | |
| D_Thallium by 6020 | 12-Jan-20 16:43 | | |
| D_Radium226+228_Combined | 08-Jan-20 16:43 | | |
| D_Lithium by 6020 | 12-Jan-20 16:43 | | |
| D_Antimony by 6020 | 12-Jan-20 16:43 | | |
| D_Boron by 6020 | 12-Jan-20 16:43 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: MWI-6-4 (R6T4B) | | | |
| Sample ID: D19G020-10 | Water | Sampled: 16-Jul-19 15:30 | |
| D_Thallium by 6020 | 12-Jan-20 15:30 | | |
| D_Antimony by 6020 | 12-Jan-20 15:30 | | |
| D_Boron by 6020 | 12-Jan-20 15:30 | | |
| D_Lithium by 6020 | 12-Jan-20 15:30 | | |
| D_Radium226+228_Combined | 08-Jan-20 15:30 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: MWI-6-8 (R6T8B) | | | |
| Sample ID: D19G020-11 | Water | Sampled: 19-Jul-19 12:50 | |
| D_Radium226+228_Combined | 11-Jan-20 12:50 | | |
| D_Lithium by 6020 | 15-Jan-20 12:50 | | |
| D_Boron by 6020 | 15-Jan-20 12:50 | | |
| D_Thallium by 6020 | 15-Jan-20 12:50 | | |
| D_Antimony by 6020 | 15-Jan-20 12:50 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: MWC-10-8 (R10T8) | | | |
| Sample ID: D19G020-12 | Water | Sampled: 19-Jul-19 10:45 | |
| D_Boron by 6020 | 15-Jan-20 10:45 | | |
| D_Lithium by 6020 | 15-Jan-20 10:45 | | |
| D_Radium226+228_Combined | 11-Jan-20 10:45 | | |
| D_Thallium by 6020 | 15-Jan-20 10:45 | | |
| D_Antimony by 6020 | 15-Jan-20 10:45 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |

Shipped Via Fed Ex

| | | | |
|----------------------|----------------|-----------------|---------------------|
| <u>R. Brakefield</u> | <u>7/22/19</u> | <u>AS / MLC</u> | <u>7/23/19 1200</u> |
| Released By | Date | Received By | Date |
| | | | <u>260 T-329</u> |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER

Deerhaven Generating Station

D19G020

| Analysis | Expires | Laboratory ID | Comments |
|---------------------------------------|-----------------|---------------------------------|----------|
| Sample Name: MWC-11-4 (R11T4B) | | | |
| Sample ID: D19G020-13 | Water | Sampled: 19-Jul-19 09:50 | |
| D_Antimony by 6020 | 15-Jan-20 09:50 | | |
| D_Boron by 6020 | 15-Jan-20 09:50 | | |
| D_Radium226+228_Combined | 11-Jan-20 09:50 | | |
| D_Lithium by 6020 | 15-Jan-20 09:50 | | |
| D_Thallium by 6020 | 15-Jan-20 09:50 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: EBLANK | | | |
| Sample ID: D19G020-14 | Water | Sampled: 18-Jul-19 10:32 | |
| D_Radium226+228_Combined | 10-Jan-20 10:32 | | |
| D_Boron by 6020 | 14-Jan-20 10:32 | | |
| D_Thallium by 6020 | 14-Jan-20 10:32 | | |
| D_Antimony by 6020 | 14-Jan-20 10:32 | | |
| D_Lithium by 6020 | 14-Jan-20 10:32 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |

Shipped via Fed Ex

Released By K. Brakefield Date 7/22/19 Received By AS/PLC Date 7/23/19 1700
2007340

Released By _____ Date _____ Received By _____ Date _____



Document Name:
Sample Condition Upon Receipt Form
Document No.:

Document Revised:
May 30, 2018
Issuing Authority:
Pace Florida Quality Office

WO#: 35484169

rm (SCUR)

Project
Project Manager

PM: JSB Due Date: 08/09/19
CLIENT: DEELAB

Date and Initials of person:

Examining contents: SRW

Label: _____

Deliver: _____

pH: _____

Client:

Thermometer Used: T-349

Date: 7-23-19

Time: 1244

Initials: SRW

State of Origin: _____

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

Cooler #1 Temp. °C 5 (Visual) t.1 (Correction Factor) .6 (Actual)

Samples on ice, cooling process has begun

Cooler #2 Temp. °C 25.4 (Visual) _____ (Correction Factor) 25.5 (Actual)

Samples on ice, cooling process has begun

Cooler #3 Temp. °C 25.9 (Visual) _____ (Correction Factor) 26.0 (Actual)

Samples on ice, cooling process has begun

Cooler #4 Temp. °C 25.3 (Visual) _____ (Correction Factor) 25.4 (Actual)

Samples on ice, cooling process has begun

Cooler #5 Temp. °C 25.5 (Visual) _____ (Correction Factor) 25.6 (Actual)

Samples on ice, cooling process has begun

Cooler #6 Temp. °C 25.9 (Visual) _____ (Correction Factor) 26.0 (Actual)

Samples on ice, cooling process has begun

Courier: Fed Ex 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 # 8139 3749 9607/9581/9618/9592/9570/9629

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Ice: Wet Blue Dry 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Chain of Custody Filled Out | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| 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 type="checkbox"/> Yes <input checked="" 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: Preservative: _____ Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____ |
| All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Headspace in VOA Vials? (>6mm): | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | |
| Trip Blank Present: | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | |

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution (use back for additional comments):

Project Manager Review: _____

Date: _____



Kanapaha Laboratory

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

Florida Department of Health Certification E52099

September 13, 2019

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

RE: Environmental

Enclosed are the results of analyses for samples received by the laboratory on 7/22/2019. 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



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

ANALYTICAL REPORT FOR SAMPLES

| Laboratory ID | Sample ID | Matrix | Date Sampled | Date Received |
|----------------------|--------------------|---------------|---------------------|----------------------|
| K19G092-01 | D19G020-01 (LF-1) | Groundwater | 07/16/2019 12:55 | 07/22/2019 14:44 |
| K19G092-02 | D19G020-02 (LF-2) | Groundwater | 07/17/2019 09:02 | 07/22/2019 14:44 |
| K19G092-03 | D19G020-03 (LF-3) | Groundwater | 07/17/2019 11:25 | 07/22/2019 14:44 |
| K19G092-04 | D19G020-04 (LF-4) | Groundwater | 07/17/2019 10:30 | 07/22/2019 14:44 |
| K19G092-05 | D19G020-05 (SIS-1) | Groundwater | 07/16/2019 14:22 | 07/22/2019 14:44 |
| K19G092-06 | D19G020-06 (SIS-2) | Groundwater | 07/17/2019 13:10 | 07/22/2019 14:44 |
| K19G092-07 | D19G020-07 (SIS-3) | Groundwater | 07/18/2019 08:00 | 07/22/2019 14:44 |
| K19G092-08 | D19G020-08 (SIS-4) | Groundwater | 07/18/2019 09:48 | 07/22/2019 14:44 |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

D19G020-01 (LF-1)
K19G092-01 (Groundwater, Grab)
Collected: 07/16/2019 12:55 pm

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Barium | 198 | | 0.2 | 0.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Calcium | 51.0 | | 0.10 | 0.40 | mg/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Chromium | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Molybdenum | 21.7 | | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 08/01/2019 | 08/01/2019 | EPA 245.1 |

D19G020-02 (LF-2)
K19G092-02 (Groundwater, Grab)
Collected: 07/17/2019 9:02 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Barium | 54.1 | | 0.2 | 0.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Beryllium | 0.18 | I | 0.10 | 0.40 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Calcium | 20.6 | | 0.10 | 0.40 | mg/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Chromium | 3.9 | I | 1.2 | 4.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cobalt | 5.1 | | 1.0 | 4.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 08/01/2019 | 08/01/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

D19G020-03 (LF-3)
K19G092-03 (Groundwater, Grab)
Collected: 07/17/2019 11:25 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Barium | 39.7 | | 0.2 | 0.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Calcium | 8.59 | | 0.10 | 0.40 | mg/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Chromium | 7.6 | | 1.2 | 4.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 08/01/2019 | 08/01/2019 | EPA 245.1 |

D19G020-04 (LF-4)
K19G092-04 (Groundwater, Grab)
Collected: 07/17/2019 10:30 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Barium | 49.0 | | 0.2 | 0.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cadmium | 0.3 | I | 0.3 | 1.2 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Calcium | 16.7 | | 0.10 | 0.40 | mg/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Chromium | 2.0 | I | 1.2 | 4.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cobalt | 1.0 | I | 1.0 | 4.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 08/01/2019 | 08/01/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

D19G020-05 (SIS-1)
K19G092-05 (Groundwater, Grab)
Collected: 07/16/2019 2:22 pm

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Barium | 19.7 | | 0.2 | 0.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Calcium | 68.5 | | 0.10 | 0.40 | mg/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Chromium | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 08/01/2019 | 08/01/2019 | EPA 245.1 |

D19G020-06 (SIS-2)
K19G092-06 (Groundwater, Grab)
Collected: 07/17/2019 1:10 pm

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Barium | 7.0 | | 0.2 | 0.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Calcium | 79.9 | | 0.10 | 0.40 | mg/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Chromium | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 08/01/2019 | 08/01/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

D19G020-07 (SIS-3)
K19G092-07 (Groundwater, Grab)
Collected: 07/18/2019 8:00 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 08/05/2019 | 08/22/2019 | EPA 200.7 |
| Barium | 19.2 | | 0.2 | 0.8 | ug/L | 1 | 08/05/2019 | 08/21/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 08/05/2019 | 08/21/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 08/05/2019 | 08/21/2019 | EPA 200.7 |
| Calcium | 57.1 | | 0.10 | 0.40 | mg/L | 1 | 08/05/2019 | 08/21/2019 | EPA 200.7 |
| Chromium | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 08/05/2019 | 08/21/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 08/05/2019 | 08/21/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 08/05/2019 | 08/21/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 08/05/2019 | 08/21/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 08/05/2019 | 08/21/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 08/01/2019 | 08/01/2019 | EPA 245.1 |

D19G020-08 (SIS-4)
K19G092-08 (Groundwater, Grab)
Collected: 07/18/2019 9:48 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Barium | 10.5 | | 0.2 | 0.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Calcium | 68.9 | | 0.10 | 0.40 | mg/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Chromium | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 07/30/2019 | 08/01/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 08/01/2019 | 08/01/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

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 B19G220 - EPA 200.7

Blank (B19G220-BLK1)

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|--|--|--|--|--|------|
| Barium | 0.2U | | 0.2 | 0.8 | ug/L | | | | | | NR |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Chromium | 1.2U | | 1.2 | 4.8 | ug/L | | | | | | NR |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | | | | | NR |
| Calcium | 0.10U | | 0.10 | 0.40 | mg/L | | | | | | 0.00 |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | NR |
| Cadmium | 0.3U | | 0.3 | 1.2 | ug/L | | | | | | NR |
| Molybdenum | 2.5U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | | | | | NR |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | | | | | 85.7 |

Blank (B19G220-BLK2)

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|--|--|--|--|--|------|
| Molybdenum | 2.5U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Chromium | 1.2U | | 1.2 | 4.8 | ug/L | | | | | | NR |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | | | | | NR |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | | | | | NR |
| Calcium | 0.10U | | 0.10 | 0.40 | mg/L | | | | | | 0.00 |
| Cadmium | 0.3U | | 0.3 | 1.2 | ug/L | | | | | | NR |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | | | | | 85.7 |
| Barium | 0.2U | | 0.2 | 0.8 | ug/L | | | | | | NR |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | | | | | NR |

LCS (B19G220-BS1)

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|--|-------|
| Selenium | 94.2 | | | | ug/L | 99.9 | | 94.3 | 90-110 | | 2.29 |
| Cadmium | 103 | | | | ug/L | 100 | | 103 | 90-110 | | 1.39 |
| Molybdenum | 99.9 | | | | ug/L | 100 | | 99.9 | 90-110 | | 1.79 |
| Lead | 102 | | | | ug/L | 100 | | 102 | 90-110 | | 0.697 |
| Arsenic | 103 | | | | ug/L | 99.3 | | 104 | 90-110 | | 0.690 |
| Beryllium | 102 | | | | ug/L | 99.3 | | 103 | 90-110 | | 2.04 |
| Chromium | 97.3 | | | | ug/L | 100 | | 97.3 | 90-110 | | 1.02 |
| Barium | 99.9 | | | | ug/L | 100 | | 99.9 | 90-110 | | 1.86 |
| Cobalt | 100 | | | | ug/L | 101 | | 99.0 | 90-110 | | 1.14 |
| Calcium | 26.0 | | | | mg/L | 24.8 | | 105 | 90-110 | | 1.37 |

LCS (B19G220-BS2)

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|-----------|------|--|--|--|------|------|--|------|--------|--|-------|
| Beryllium | 99.1 | | | | ug/L | 99.3 | | 99.8 | 90-110 | | 2.04 |
| Cadmium | 101 | | | | ug/L | 100 | | 101 | 90-110 | | 1.39 |
| Barium | 97.3 | | | | ug/L | 100 | | 97.3 | 90-110 | | 1.86 |
| Arsenic | 102 | | | | ug/L | 99.3 | | 103 | 90-110 | | 0.690 |
| Chromium | 95.9 | | | | ug/L | 100 | | 95.9 | 90-110 | | 1.02 |
| Lead | 101 | | | | ug/L | 100 | | 101 | 90-110 | | 0.697 |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

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 B19G220 - EPA 200.7 (Continued)

LCS (B19G220-BS2)

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|------|--|
| Calcium | 25.5 | | | | mg/L | 24.8 | | 103 | 90-110 | 1.37 | |
| Selenium | 91.2 | | | | ug/L | 99.9 | | 91.3 | 90-110 | 2.29 | |
| Molybdenum | 97.4 | | | | ug/L | 100 | | 97.4 | 90-110 | 1.79 | |
| Cobalt | 98.4 | | | | ug/L | 101 | | 97.4 | 90-110 | 1.14 | |

Duplicate (B19G220-DUP1)

Source: K19G092-03

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|------|--|--|-------|--|
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | NR | |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | ND | | | 10.1 | |
| Calcium | 8.76 | | 0.10 | 0.40 | mg/L | | 8.59 | | | 1.39 | |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | ND | | | NR | |
| Barium | 39.8 | | 0.2 | 0.8 | ug/L | | 39.7 | | | 0.178 | |
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | ND | | | NR | |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | ND | | | 9.43 | |
| Chromium | 7.8 | | 1.2 | 4.8 | ug/L | | 7.6 | | | 2.20 | |
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | 0.00 | |

Duplicate (B19G220-DUP2)

Source: K19G093-01

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|------|--|--|-------|--|
| Cobalt | 5.0 U | | 5.0 | 20.0 | ug/L | | ND | | | 35.2 | |
| Barium | 38.4 | | 1.0 | 4.0 | ug/L | | 38.6 | | | 0.367 | |
| Calcium | 92.7 | | 0.50 | 2.00 | mg/L | | 92.9 | | | 0.152 | |
| Selenium | 20.0 U | | 20.0 | 80.0 | ug/L | | ND | | | NR | |
| Chromium | 6.0 U | | 6.0 | 24.0 | ug/L | | ND | | | 61.8 | |
| Molybdenum | 22.0 U | | 12.5 | 50.0 | ug/L | | 23.7 | | | 5.26 | |
| Arsenic | 12.5 U | | 12.5 | 50.0 | ug/L | | ND | | | 41.2 | |
| Cadmium | 1.5 U | | 1.5 | 6.0 | ug/L | | ND | | | NR | |
| Lead | 15.0 U | | 15.0 | 60.0 | ug/L | | ND | | | NR | |
| Beryllium | 0.50 U | | 0.50 | 2.00 | ug/L | | ND | | | 99.4 | |

Duplicate (B19G220-DUP3)

Source: K19G094-04

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|----|--|--|------|--|
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | NR | |
| 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 | |
| Barium | 0.2 U | | 0.2 | 0.8 | ug/L | | ND | | | NR | |
| Chromium | 1.2 U | | 1.2 | 4.8 | ug/L | | ND | | | NR | |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | ND | | | NR | |
| Calcium | 0.10 U | | 0.10 | 0.40 | mg/L | | ND | | | 0.00 | |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | ND | | | 184 | |
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

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 B19G220 - EPA 200.7 (Continued)

Duplicate (B19G220-DUP4)

Source: K19G095-10

Prepared: 7/30/2019 Analyzed: 8/1/2019

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

Matrix Spike (B19G220-MS1)

Source: K19G092-03

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|------|--|------|------|------|------|------|------|--------|--|--|
| Chromium | 211 | | 1.2 | 4.8 | ug/L | 200 | 7.6 | 102 | 90-110 | | |
| Calcium | 34.7 | | 0.10 | 0.40 | mg/L | 25.0 | 8.59 | 104 | 90-110 | | |
| Barium | 545 | | 0.2 | 0.8 | ug/L | 500 | 39.7 | 101 | 90-110 | | |
| Lead | 207 | | 3.0 | 12.0 | ug/L | 200 | ND | 104 | 90-110 | | |
| Selenium | 48.8 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 97.6 | 90-110 | | |
| Molybdenum | 526 | | 2.5 | 10.0 | ug/L | 500 | ND | 105 | 90-110 | | |
| Cadmium | 51.7 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 103 | 90-110 | | |
| Cobalt | 208 | | 1.0 | 4.0 | ug/L | 200 | ND | 104 | 90-110 | | |
| Beryllium | 202 | | 0.10 | 0.40 | ug/L | 200 | ND | 101 | 90-110 | | |
| Arsenic | 209 | | 2.5 | 10.0 | ug/L | 200 | ND | 104 | 90-110 | | |

Matrix Spike (B19G220-MS2)

Source: K19G093-01

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|------|--|------|------|------|------|------|------|--------|--|--|
| Chromium | 2020 | | 12.0 | 48.0 | ug/L | 2000 | ND | 101 | 90-110 | | |
| Cadmium | 519 | | 3.0 | 12.0 | ug/L | 500 | ND | 104 | 90-110 | | |
| Selenium | 493 | | 40.0 | 160 | ug/L | 500 | ND | 98.6 | 90-110 | | |
| Lead | 2080 | | 30.0 | 120 | ug/L | 2000 | ND | 104 | 90-110 | | |
| Molybdenum | 5280 | | 25.0 | 100 | ug/L | 5000 | 23.7 | 106 | 90-110 | | |
| Cobalt | 2080 | | 10.0 | 40.0 | ug/L | 2000 | ND | 104 | 90-110 | | |
| Calcium | 354 | | 1.00 | 4.00 | mg/L | 250 | 92.9 | 104 | 90-110 | | |
| Arsenic | 2100 | | 25.0 | 100 | ug/L | 2000 | ND | 105 | 90-110 | | |
| Beryllium | 2020 | | 1.00 | 4.00 | ug/L | 2000 | ND | 101 | 90-110 | | |
| Barium | 5050 | | 2.0 | 8.0 | ug/L | 5000 | 38.6 | 100 | 90-110 | | |

Matrix Spike (B19G220-MS3)

Source: K19G094-04

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|------|--|------|------|------|------|----|------|--------|--|--|
| Beryllium | 200 | | 0.10 | 0.40 | ug/L | 200 | ND | 100 | 90-110 | | |
| Chromium | 199 | | 1.2 | 4.8 | ug/L | 200 | ND | 99.5 | 90-110 | | |
| Selenium | 47.2 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 94.4 | 90-110 | | |
| Molybdenum | 515 | | 2.5 | 10.0 | ug/L | 500 | ND | 103 | 90-110 | | |
| Arsenic | 203 | | 2.5 | 10.0 | ug/L | 200 | ND | 102 | 90-110 | | |
| Barium | 499 | | 0.2 | 0.8 | ug/L | 500 | ND | 99.8 | 90-110 | | |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

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 B19G220 - EPA 200.7 (Continued)

Matrix Spike (B19G220-MS3)

Source: K19G094-04

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|---------|------|--|------|------|------|------|----|-----|--------|--|--|
| Lead | 203 | | 3.0 | 12.0 | ug/L | 200 | ND | 102 | 90-110 | | |
| Cobalt | 204 | | 1.0 | 4.0 | ug/L | 200 | ND | 102 | 90-110 | | |
| Calcium | 25.6 | | 0.10 | 0.40 | mg/L | 25.0 | ND | 102 | 90-110 | | |
| Cadmium | 51.4 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 103 | 90-110 | | |

Matrix Spike (B19G220-MS4)

Source: K19G095-10

Prepared: 7/30/2019 Analyzed: 8/1/2019

| | | | | | | | | | | | |
|------------|------|--|------|------|------|------|----|------|--------|--|--|
| Lead | 209 | | 3.0 | 12.0 | ug/L | 200 | ND | 104 | 90-110 | | |
| Cobalt | 210 | | 1.0 | 4.0 | ug/L | 200 | ND | 105 | 90-110 | | |
| Arsenic | 207 | | 2.5 | 10.0 | ug/L | 200 | ND | 104 | 90-110 | | |
| Barium | 496 | | 0.2 | 0.8 | ug/L | 500 | ND | 99.2 | 90-110 | | |
| Chromium | 206 | | 1.2 | 4.8 | ug/L | 200 | ND | 103 | 90-110 | | |
| Cadmium | 53.0 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 106 | 90-110 | | |
| Selenium | 48.5 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 97.0 | 90-110 | | |
| Calcium | 25.7 | | 0.10 | 0.40 | mg/L | 25.0 | ND | 103 | 90-110 | | |
| Beryllium | 200 | | 0.10 | 0.40 | ug/L | 200 | ND | 100 | 90-110 | | |
| Molybdenum | 530 | | 2.5 | 10.0 | ug/L | 500 | ND | 106 | 90-110 | | |

Batch B19G224 - EPA 200.7

Blank (B19G224-BLK1)

Prepared: 8/5/2019 Analyzed: 8/21/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|--|--|--|--|------|
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Calcium | 0.10 U | | 0.10 | 0.40 | mg/L | | | | | | 70.7 |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | | | | | NR |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | | | | | 25.7 |
| Chromium | 1.2 U | | 1.2 | 4.8 | ug/L | | | | | | NR |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | | | | | 70.1 |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | | | | | NR |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | | | | | NR |
| Barium | 0.2 U | | 0.2 | 0.8 | ug/L | | | | | | 85.4 |

Blank (B19G224-BLK2)

Prepared: 8/5/2019 Analyzed: 8/21/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|--|--|--|--|------|
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | | | | | NR |
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | | | | | 25.7 |
| Chromium | 1.2 U | | 1.2 | 4.8 | ug/L | | | | | | NR |
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | NR |
| Calcium | 0.10 U | | 0.10 | 0.40 | mg/L | | | | | | 70.7 |
| Barium | 0.2 U | | 0.2 | 0.8 | ug/L | | | | | | 85.4 |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | | | | | 70.1 |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | | | | | NR |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | | | | | NR |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

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 B19G224 - EPA 200.7 (Continued)

Blank (B19G224-BLK2)

Prepared: 8/5/2019 Analyzed: 8/21/2019

LCS (B19G224-BS1)

Prepared: 8/5/2019 Analyzed: 8/21/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|------|--|
| Chromium | 99.5 | | | | ug/L | 100 | | 99.5 | 90-110 | 1.87 | |
| Molybdenum | 101 | | | | ug/L | 100 | | 101 | 90-110 | 2.06 | |
| Calcium | 26.3 | | | | mg/L | 24.8 | | 106 | 90-110 | 2.18 | |
| Lead | 102 | | | | ug/L | 100 | | 102 | 90-110 | 1.75 | |
| Cobalt | 102 | | | | ug/L | 101 | | 101 | 90-110 | 2.11 | |
| Cadmium | 106 | | | | ug/L | 100 | | 106 | 90-110 | 2.72 | |
| Barium | 99.3 | | | | ug/L | 100 | | 99.3 | 90-110 | 1.88 | |
| Beryllium | 105 | | | | ug/L | 99.3 | | 106 | 90-110 | 2.75 | |
| Arsenic | 106 | | | | ug/L | 99.3 | | 107 | 90-110 | 2.03 | |
| Selenium | 93.6 | | | | ug/L | 99.9 | | 93.7 | 90-110 | 2.54 | |

LCS (B19G224-BS2)

Prepared: 8/5/2019 Analyzed: 8/21/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|------|--|
| Selenium | 90.3 | | | | ug/L | 99.9 | | 90.4 | 90-110 | 2.54 | |
| Barium | 96.7 | | | | ug/L | 100 | | 96.7 | 90-110 | 1.88 | |
| Beryllium | 101 | | | | ug/L | 99.3 | | 102 | 90-110 | 2.75 | |
| Calcium | 25.5 | | | | mg/L | 24.8 | | 103 | 90-110 | 2.18 | |
| Molybdenum | 98.1 | | | | ug/L | 100 | | 98.1 | 90-110 | 2.06 | |
| Cadmium | 102 | | | | ug/L | 100 | | 102 | 90-110 | 2.72 | |
| Lead | 99.5 | | | | ug/L | 100 | | 99.5 | 90-110 | 1.75 | |
| Arsenic | 103 | | | | ug/L | 99.3 | | 104 | 90-110 | 2.03 | |
| Cobalt | 99.0 | | | | ug/L | 101 | | 98.0 | 90-110 | 2.11 | |
| Chromium | 96.9 | | | | ug/L | 100 | | 96.9 | 90-110 | 1.87 | |

Duplicate (B19G224-DUP1)

Source: K19G098-03

Prepared: 8/5/2019 Analyzed: 8/21/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|--|------|--|--|-------|--|
| Molybdenum | 25.0 | | 2.5 | 10.0 | ug/L | | 25.0 | | | 0.00 | |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | 9.68 | |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | 10.5 | |
| Cobalt | 2.61 | | 1.0 | 4.0 | ug/L | | 2.6 | | | 1.08 | |
| Cadmium | 0.71 | | 0.3 | 1.2 | ug/L | | 0.7 | | | 0.975 | |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | ND | | | 0.00 | |
| Barium | 5.2 | | 0.2 | 0.8 | ug/L | | 5.2 | | | 1.09 | |
| Calcium | 76.0 | | 0.10 | 0.40 | mg/L | | 76.0 | | | 0.00 | |
| Chromium | 1.2U | | 1.2 | 4.8 | ug/L | | ND | | | 12.3 | |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | 173 | |

Duplicate (B19G224-DUP2)

Source: K19G098-13

Prepared: 8/5/2019 Analyzed: 8/21/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|--|----|--|--|------|--|
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | 72.2 | |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | NR | |
| Molybdenum | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | 3.20 | |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | ND | | | NR | |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

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 B19G224 - EPA 200.7 (Continued)

| Duplicate (B19G224-DUP2) | | Source: K19G098-13 | | | | Prepared: 8/5/2019 Analyzed: 8/21/2019 | | | | | |
|--------------------------|------|--------------------|------|------|------|----------------------------------------|------|--|--|--|-------|
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | ND | | | | NR |
| Cadmium | 0.3U | | 0.3 | 1.2 | ug/L | | ND | | | | 73.5 |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | | 20.6 |
| Chromium | 1.2U | | 1.2 | 4.8 | ug/L | | ND | | | | NR |
| Barium | 12.1 | | 0.2 | 0.8 | ug/L | | 12.1 | | | | 0.00 |
| Calcium | 60.3 | | 0.10 | 0.40 | mg/L | | 59.9 | | | | 0.471 |

| Duplicate (B19G224-DUP3) | | Source: K19G100-02 | | | | Prepared: 8/5/2019 Analyzed: 8/21/2019 | | | | | |
|--------------------------|-------|--------------------|------|------|------|----------------------------------------|------|--|--|--|-------|
| Cadmium | 0.3U | | 0.3 | 1.2 | ug/L | | ND | | | | 86.7 |
| Molybdenum | 152 | | 2.5 | 10.0 | ug/L | | 152 | | | | 0.00 |
| Barium | 21.2 | | 0.2 | 0.8 | ug/L | | 21.0 | | | | 0.670 |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | ND | | | | NR |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | | 17.7 |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | | NR |
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | | 33.1 |
| Calcium | 166 | | 0.20 | 0.80 | mg/L | | 166 | | | | 0.00 |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | ND | | | | 2.11 |
| Chromium | 1.2U | | 1.2 | 4.8 | ug/L | | ND | | | | 3.17 |

| Duplicate (B19G224-DUP4) | | Source: K19H015-04 | | | | Prepared: 8/5/2019 Analyzed: 8/21/2019 | | | | | |
|--------------------------|-------|--------------------|------|------|------|----------------------------------------|------|--|--|--|--------|
| Lead | 3.0U | | 3.0 | 12.0 | ug/L | | ND | | | | 11.3 |
| Arsenic | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | | 21.8 |
| Calcium | 35.2 | | 0.10 | 0.40 | mg/L | | 35.3 | | | | 0.201 |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | ND | | | | NR |
| Molybdenum | 2.5U | | 2.5 | 10.0 | ug/L | | ND | | | | 13.6 |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | ND | | | | 2.87 |
| Chromium | 1.2U | | 1.2 | 4.8 | ug/L | | ND | | | | NR |
| Barium | 9.2 | | 0.2 | 0.8 | ug/L | | 9.2 | | | | 0.0767 |
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | | 60.5 |
| Cadmium | 0.3U | | 0.3 | 1.2 | ug/L | | ND | | | | 141 |

| Matrix Spike (B19G224-MS1) | | Source: K19G098-03 | | | | Prepared: 8/5/2019 Analyzed: 8/21/2019 | | | | | |
|----------------------------|------|--------------------|------|------|------|----------------------------------------|------|------|--------|--|--|
| Cobalt | 204 | | 2.0 | 8.0 | ug/L | 200 | 2.6 | 101 | 90-110 | | |
| Cadmium | 52.0 | | 0.6 | 2.4 | ug/L | 50.0 | 0.7 | 103 | 90-110 | | |
| Beryllium | 210 | | 0.20 | 0.80 | ug/L | 200 | ND | 105 | 90-110 | | |
| Chromium | 199 | | 2.4 | 9.6 | ug/L | 200 | ND | 99.5 | 90-110 | | |
| Calcium | 99.3 | | 0.20 | 0.80 | mg/L | 25.0 | 76.0 | 93.2 | 90-110 | | |
| Lead | 206 | | 6.0 | 24.0 | ug/L | 200 | ND | 103 | 90-110 | | |
| Arsenic | 209 | | 5.0 | 20.0 | ug/L | 200 | ND | 104 | 90-110 | | |
| Molybdenum | 536 | | 5.0 | 20.0 | ug/L | 500 | 25.0 | 102 | 90-110 | | |
| Barium | 493 | | 0.4 | 1.6 | ug/L | 500 | 5.2 | 97.6 | 90-110 | | |
| Selenium | 48.3 | | 8.0 | 32.0 | ug/L | 50.0 | ND | 96.6 | 90-110 | | |



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

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 B19G224 - EPA 200.7 (Continued)

Matrix Spike (B19G224-MS1) Source: K19G098-03 Prepared: 8/5/2019 Analyzed: 8/21/2019

Matrix Spike (B19G224-MS2) Source: K19G098-13 Prepared: 8/5/2019 Analyzed: 8/21/2019

| | | | | | | | | | | | |
|------------|------|--|------|------|------|------|------|------|--------|--|--|
| Cobalt | 202 | | 1.0 | 4.0 | ug/L | 200 | ND | 101 | 90-110 | | |
| Molybdenum | 514 | | 2.5 | 10.0 | ug/L | 500 | ND | 103 | 90-110 | | |
| Barium | 505 | | 0.2 | 0.8 | ug/L | 500 | 12.1 | 98.6 | 90-110 | | |
| Lead | 202 | | 3.0 | 12.0 | ug/L | 200 | ND | 101 | 90-110 | | |
| Chromium | 200 | | 1.2 | 4.8 | ug/L | 200 | ND | 100 | 90-110 | | |
| Calcium | 85.1 | | 0.10 | 0.40 | mg/L | 25.0 | 59.9 | 101 | 90-110 | | |
| Cadmium | 51.2 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 102 | 90-110 | | |
| Selenium | 47.4 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 94.8 | 90-110 | | |
| Beryllium | 202 | | 0.10 | 0.40 | ug/L | 200 | ND | 101 | 90-110 | | |
| Arsenic | 207 | | 2.5 | 10.0 | ug/L | 200 | ND | 104 | 90-110 | | |

Matrix Spike (B19G224-MS3) Source: K19G100-02 Prepared: 8/5/2019 Analyzed: 8/21/2019

| | | | | | | | | | | | |
|------------|------|--|------|------|------|------|------|------|--------|--|--|
| Barium | 1000 | | 0.4 | 1.6 | ug/L | 1000 | 21.0 | 98.3 | 90-110 | | |
| Selenium | 95.2 | | 8.0 | 32.0 | ug/L | 100 | ND | 95.2 | 90-110 | | |
| Molybdenum | 1180 | | 5.0 | 20.0 | ug/L | 1000 | 152 | 103 | 90-110 | | |
| Lead | 402 | | 6.0 | 24.0 | ug/L | 400 | ND | 100 | 90-110 | | |
| Cobalt | 402 | | 2.0 | 8.0 | ug/L | 400 | ND | 100 | 90-110 | | |
| Calcium | 220 | | 0.20 | 0.80 | mg/L | 50.0 | 166 | 108 | 90-110 | | |
| Chromium | 396 | | 2.4 | 9.6 | ug/L | 400 | ND | 99.0 | 90-110 | | |
| Arsenic | 412 | | 5.0 | 20.0 | ug/L | 400 | ND | 103 | 90-110 | | |
| Cadmium | 101 | | 0.6 | 2.4 | ug/L | 100 | ND | 101 | 90-110 | | |
| Beryllium | 398 | | 0.20 | 0.80 | ug/L | 400 | ND | 99.5 | 90-110 | | |

Matrix Spike (B19G224-MS4) Source: K19H015-04 Prepared: 8/5/2019 Analyzed: 8/22/2019

| | | | | | | | | | | | |
|------------|------|--|------|------|------|------|------|------|--------|--|--|
| Molybdenum | 518 | | 2.5 | 10.0 | ug/L | 500 | ND | 104 | 90-110 | | |
| Chromium | 201 | | 1.2 | 4.8 | ug/L | 200 | ND | 100 | 90-110 | | |
| Cobalt | 204 | | 1.0 | 4.0 | ug/L | 200 | ND | 102 | 90-110 | | |
| Cadmium | 51.5 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 103 | 90-110 | | |
| Beryllium | 209 | | 0.10 | 0.40 | ug/L | 200 | ND | 104 | 90-110 | | |
| Lead | 206 | | 3.0 | 12.0 | ug/L | 200 | ND | 103 | 90-110 | | |
| Arsenic | 213 | | 2.5 | 10.0 | ug/L | 200 | ND | 106 | 90-110 | | |
| Calcium | 62.5 | | 0.10 | 0.40 | mg/L | 25.0 | 35.3 | 109 | 90-110 | | |
| Barium | 507 | | 0.2 | 0.8 | ug/L | 500 | 9.2 | 99.6 | 90-110 | | |
| Selenium | 48.7 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 97.4 | 90-110 | | |

Batch B19G248 - MERCURY

Blank (B19G248-BLK1) Prepared & Analyzed: 8/1/2019

| | | | | | | | | | | | |
|---------|---------|--|-------|-------|------|--|--|--|--|--|--|
| Mercury | 0.100 U | | 0.100 | 0.400 | ug/L | | | | | | |
|---------|---------|--|-------|-------|------|--|--|--|--|--|--|



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

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 B19G248 - MERCURY (Continued)

LCS (B19G248-BS1)

Prepared & Analyzed: 8/1/2019

| | | | | | | | | | | | |
|---------|------|--|-------|-------|------|------|--|------|--------|--|--|
| Mercury | 1.99 | | 0.100 | 0.400 | ug/L | 2.00 | | 99.4 | 90-110 | | |
|---------|------|--|-------|-------|------|------|--|------|--------|--|--|

Duplicate (B19G248-DUP1)

Source: K19G092-01

Prepared & Analyzed: 8/1/2019

| | | | | | | | | | | | |
|---------|---------|--|-------|-------|------|--|----|--|--|------|--|
| Mercury | 0.100 U | | 0.100 | 0.400 | ug/L | | ND | | | 47.1 | |
|---------|---------|--|-------|-------|------|--|----|--|--|------|--|

Matrix Spike (B19G248-MS1)

Source: K19G092-01

Prepared & Analyzed: 8/1/2019

| | | | | | | | | | | | |
|---------|------|--|-------|-------|------|------|----|-----|--------|--|--|
| Mercury | 2.05 | | 0.100 | 0.400 | ug/L | 2.01 | ND | 102 | 90-110 | | |
|---------|------|--|-------|-------|------|------|----|-----|--------|--|--|



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

Project: Environmental
Project Number: D19G020
Project Manager: Jeff Boudreau

Reported:
09/13/2019 13:04

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 |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19G020

SENDING LABORATORY:

Gainesville Regional Utilities
 Deerhaven Generating Station
 10001 NW 13th Street
 Gainesville, FL 32653
 Phone: 352-334-3434
 Fax: 352-334-3149
 Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Kanapaha Laboratory
 3901 SW 63rd BLVD
 Gainesville, FL/USA 32608
 Phone :352-393-6777
 Fax: 352-334-2732

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

| | | | |
|------------------------------|--------------|---------------------------------|--|
| Sample Name: LF-1 | | K19G092-01 | |
| Sample ID: D19G020-01 | Water | Sampled: 16-Jul-19 12:55 | |

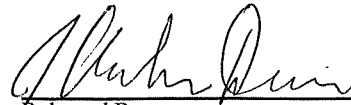

- K_Lead 12-Jan-20 12:55
- K_Arsenic 12-Jan-20 12:55
- K_Selenium 12-Jan-20 12:55
- K_Mercury, cold vapor 13-Aug-19 12:55
- K_Cobalt 12-Jan-20 12:55
- K_Chromium 12-Jan-20 12:55
- K_Calcium 12-Jan-20 12:55
- K_Cadmium 12-Jan-20 12:55
- K_Beryllium 12-Jan-20 12:55
- K_Barium 12-Jan-20 12:55
- K_Molybdenum 12-Jan-20 12:55

Containers Supplied:
 D_HDPE, HNO3 pH<2 - 500mL (A)

| | | | |
|------------------------------|--------------|---------------------------------|--|
| Sample Name: LF-2 | | K19G092-02 | |
| Sample ID: D19G020-02 | Water | Sampled: 17-Jul-19 09:02 | |

- K_Barium 13-Jan-20 09:02
- K_Cobalt 13-Jan-20 09:02
- K_Molybdenum 13-Jan-20 09:02
- K_Mercury, cold vapor 14-Aug-19 09:02
- K_Lead 13-Jan-20 09:02
- K_Chromium 13-Jan-20 09:02
- K_Calcium 13-Jan-20 09:02
- K_Beryllium 13-Jan-20 09:02
- K_Selenium 13-Jan-20 09:02
- K_Arsenic 13-Jan-20 09:02
- K_Cadmium 13-Jan-20 09:02

Containers Supplied:
 D_HDPE, HNO3 pH<2 - 500mL (A)

| | | | |
|------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------|---------------|
|  | 7-22-19 |  | 07/22/19 1444 |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19G020

| | | | |
|-----------------|----------------|----------------------|-----------------|
| Analysis | Expires | Laboratory ID | Comments |
|-----------------|----------------|----------------------|-----------------|

| | | | |
|------------------------------|--------------|--------------------------------|-------------------|
| Sample Name: LF-3 | | | |
| Sample ID: D19G020-03 | Water | Sampled:17-Jul-19 11:25 | K19G092-03 |

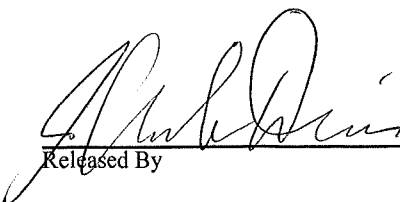

| | |
|-----------------------|-----------------|
| K_Cobalt | 13-Jan-20 11:25 |
| K_Selenium | 13-Jan-20 11:25 |
| K_Molybdenum | 13-Jan-20 11:25 |
| K_Mercury, cold vapor | 14-Aug-19 11:25 |
| K_Lead | 13-Jan-20 11:25 |
| K_Calcium | 13-Jan-20 11:25 |
| K_Cadmium | 13-Jan-20 11:25 |
| K_Beryllium | 13-Jan-20 11:25 |
| K_Arsenic | 13-Jan-20 11:25 |
| K_Chromium | 13-Jan-20 11:25 |
| K_Barium | 13-Jan-20 11:25 |

Containers Supplied:
D_HDPE, HNO3 pH<2 - 500mL (A)

| | | | |
|------------------------------|--------------|--------------------------------|-------------------|
| Sample Name: LF-4 | | | |
| Sample ID: D19G020-04 | Water | Sampled:17-Jul-19 10:30 | K19G092-04 |

| | |
|-----------------------|-----------------|
| K_Barium | 13-Jan-20 10:30 |
| K_Selenium | 13-Jan-20 10:30 |
| K_Mercury, cold vapor | 14-Aug-19 10:30 |
| K_Lead | 13-Jan-20 10:30 |
| K_Cobalt | 13-Jan-20 10:30 |
| K_Chromium | 13-Jan-20 10:30 |
| K_Calcium | 13-Jan-20 10:30 |
| K_Beryllium | 13-Jan-20 10:30 |
| K_Arsenic | 13-Jan-20 10:30 |
| K_Molybdenum | 13-Jan-20 10:30 |
| K_Cadmium | 13-Jan-20 10:30 |

Containers Supplied:
D_HDPE, HNO3 pH<2 - 500mL (A)

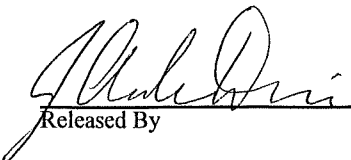

| | | | |
|------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------|---------------|
|  | 7-22-19 |  | 07/22/19 1444 |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



SUBCONTRACT ORDER
Deerhaven Generating Station
D19G020

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------|-----------------|---------------------------------|-------------------|
| Sample Name: SIS-1 | | | |
| Sample ID: D19G020-05 | Water | Sampled: 16-Jul-19 14:22 | K19G092-05 |
| K_Lead | 12-Jan-20 14:22 | | |
| K_Arsenic | 12-Jan-20 14:22 | | |
| K_Selenium | 12-Jan-20 14:22 | | |
| K_Mercury, cold vapor | 13-Aug-19 14:22 | | |
| K_Cobalt | 12-Jan-20 14:22 | | |
| K_Chromium | 12-Jan-20 14:22 | | |
| K_Calcium | 12-Jan-20 14:22 | | |
| K_Cadmium | 12-Jan-20 14:22 | | |
| K_Beryllium | 12-Jan-20 14:22 | | |
| K_Barium | 12-Jan-20 14:22 | | |
| K_Molybdenum | 12-Jan-20 14:22 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | |
| Sample Name: SIS-2 | | | |
| Sample ID: D19G020-06 | Water | Sampled: 17-Jul-19 13:10 | K19G092-06 |
| K_Mercury, cold vapor | 14-Aug-19 13:10 | | |
| K_Calcium | 13-Jan-20 13:10 | | |
| K_Barium | 13-Jan-20 13:10 | | |
| K_Beryllium | 13-Jan-20 13:10 | | |
| K_Cadmium | 13-Jan-20 13:10 | | |
| K_Arsenic | 13-Jan-20 13:10 | | |
| K_Molybdenum | 13-Jan-20 13:10 | | |
| K_Lead | 13-Jan-20 13:10 | | |
| K_Cobalt | 13-Jan-20 13:10 | | |
| K_Chromium | 13-Jan-20 13:10 | | |
| K_Selenium | 13-Jan-20 13:10 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | |

| | | | |
|------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------|----------|
|  | 7-22-19 |  | 07/22/19 |
| Released By | Date | Received By | Date |
| Released By | Date | Received By | Date |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19G020

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

| | | | |
|------------------------------|--------------|---------------------------------|-------------------|
| Sample Name: SIS-3 | | | |
| Sample ID: D19G020-07 | Water | Sampled: 18-Jul-19 08:00 | K19G092-07 |

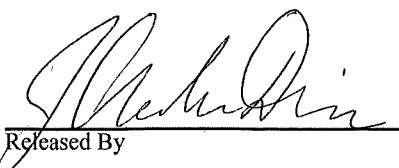
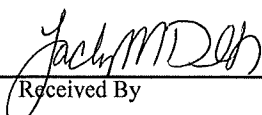
| | |
|-----------------------|-----------------|
| K_Calcium | 14-Jan-20 08:00 |
| K_Cadmium | 14-Jan-20 08:00 |
| K_Beryllium | 14-Jan-20 08:00 |
| K_Barium | 14-Jan-20 08:00 |
| K_Arsenic | 14-Jan-20 08:00 |
| K_Mercury, cold vapor | 15-Aug-19 08:00 |
| K_Chromium | 14-Jan-20 08:00 |
| K_Molybdenum | 14-Jan-20 08:00 |
| K_Lead | 14-Jan-20 08:00 |
| K_Cobalt | 14-Jan-20 08:00 |
| K_Selenium | 14-Jan-20 08:00 |

Containers Supplied:
D_HDPE, HNO3 pH<2 - 500mL (A)

| | | | |
|------------------------------|--------------|---------------------------------|-------------------|
| Sample Name: SIS-4 | | | |
| Sample ID: D19G020-08 | Water | Sampled: 18-Jul-19 09:48 | K19G092-08 |

| | |
|-----------------------|-----------------|
| K_Beryllium | 14-Jan-20 09:48 |
| K_Cadmium | 14-Jan-20 09:48 |
| K_Calcium | 14-Jan-20 09:48 |
| K_Chromium | 14-Jan-20 09:48 |
| K_Arsenic | 14-Jan-20 09:48 |
| K_Barium | 14-Jan-20 09:48 |
| K_Selenium | 14-Jan-20 09:48 |
| K_Molybdenum | 14-Jan-20 09:48 |
| K_Lead | 14-Jan-20 09:48 |
| K_Cobalt | 14-Jan-20 09:48 |
| K_Mercury, cold vapor | 15-Aug-19 09:48 |

Containers Supplied:
D_HDPE, HNO3 pH<2 - 500mL (A)

| | | | |
|------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------|---------------|
|  | 7-22-19 |  | 07/22/19 1444 |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|

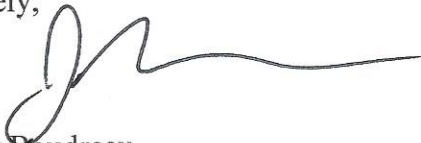
September 27, 2019

Jim Wally
Environmental Engineer
Innovative Waste Consulting Services, LLC
3720 NW 43rd St. Suite 103
Gainesville, Florida 32606

Dear Jim Wally,

Enclosed are the TSS and TDS results for the 3Q19 CCR Groundwater samples. The results relate only to the samples included in these reports. Results reported herein conform to the most current, applicable TNI/NELAC Standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report. All data is subject to a degree of uncertainty. Deerhaven Laboratory uncertainty is based upon LCS quality control statistics.

Sincerely,



Jeffery Boudreau
Laboratory Directory
Deerhaven Generating Station
10001 NW 13th Street
Gainesville, FL 32653
(352) 393-6346
boudreaujp@gru.com

3Q19 GROUNDWATER CCR TSS REPORT

| Sample ID | ID | TSS, Final Result | MDL | PQL | QUAL |
|------------|----------|-------------------|------|------|------|
| | | mg/L | mg/L | mg/L | |
| D19G021-04 | R4T5 | 1.0 | 1.0 | 4.0 | U |
| D19G021-06 | R6T4 | 1.0 | 1.0 | 4.0 | U |
| D19G020-05 | SIS1 | 1.0 | 1.0 | 4.0 | U |
| D19G020-06 | SIS2 | 1.0 | 1.0 | 4.0 | U |
| D19G020-01 | LF1 | 1.0 | 1.0 | 4.0 | U |
| D19G020-02 | LF2 | 1.0 | 1.0 | 4.0 | U |
| D19G020-03 | LF3 | 1.0 | 1.0 | 4.0 | U |
| D19G020-04 | LF4 | 1.0 | 1.0 | 4.0 | U |
| D19G020-07 | SIS3 | 1.0 | 1.0 | 4.0 | U |
| D19G020-08 | SIS4 | 1.0 | 1.0 | 4.0 | U |
| D19G021-14 | EBLANK | 1.0 | 1.0 | 4.0 | U |
| D19G021-07 | R6T8 | 1.0 | 1.0 | 4.0 | U |
| D19G021-11 | R10T8 | 1.0 | 1.0 | 4.0 | U |
| D19G021-12 | R11T4 | 1.0 | 1.0 | 4.0 | U |
| BLK1 | BLANK1 | 1.0 | 1.0 | 4.0 | U |
| DG91802 | SRM1 | 75.8 | 1.0 | 4.0 | |
| DUP1 | LAB DUP1 | 1.0 | 1.0 | 4.0 | U |
| BLK2 | BLANK2 | 1.0 | 1.0 | 4.0 | U |
| DG91802 | SRM2 | 72.8 | 1.0 | 4.0 | |
| DUP2 | LAB DUP2 | 1.0 | 1.0 | 4.0 | U |

DUP 1: D19G021-05

| | | |
|------------------|-------|-------------|
| SRM TV, mg/L | 84.0 | |
| SRM, mg/L | 75.8 | |
| % Recovery | 90.24 | % Range |
| Low Range, mg/L | 68.8 | 81.9047619 |
| High Range, mg/L | 93.4 | 111.1904762 |

| | |
|-----------|-----|
| Sample | 1.0 |
| Duplicate | 1.0 |
| %RPD | 0 |

DUP 2: D19G021-10

| | | |
|------------------|-------|-------------|
| SRM TV, mg/L | 84.0 | |
| SRM, mg/L | 72.8 | |
| % Recovery | 86.66 | % Range |
| Low Range, mg/L | 68.8 | 81.9047619 |
| High Range, mg/L | 93.4 | 111.1904762 |

| | |
|-----------|-----|
| Sample | 1.0 |
| Duplicate | 1.0 |
| %RPD | 0 |

3Q19 CCR GROUNDWATER REPORT

3Q19 GROUNDWATER TDS REPORT

| Sample ID | ID | TDS, Final Result | MDL | PQL | QUAL |
|------------|---------|-------------------|------|------|------|
| | | mg/L | mg/L | mg/L | |
| D19G021-04 | R4T5 | 423 | 10 | 40 | |
| D19G021-06 | R6T4 | 245 | 10 | 40 | |
| D19G020-05 | SIS1 | 286 | 10 | 40 | |
| D19G020-06 | SIS2 | 266 | 10 | 40 | |
| D19G020-01 | LF1 | 217 | 10 | 40 | |
| D19G020-02 | LF2 | 243 | 10 | 40 | |
| D19G020-03 | LF3 | 340 | 10 | 40 | |
| D19G020-04 | LF4 | 141 | 10 | 40 | |
| D19G020-07 | SIS3 | 237 | 10 | 40 | |
| D19G020-08 | SIS4 | 257 | 10 | 40 | |
| D19G021-14 | EBLANK | 10 | 10 | 40 | U |
| D19G021-07 | R6T8 | 387 | 10 | 40 | |
| D19G021-09 | R8T10 | 88 | 10 | 40 | |
| D19G021-10 | R9T5 | 187 | 10 | 40 | |
| D19G021-11 | R10T8 | 10 | 10 | 40 | U |
| D19G021-12 | R11T4 | 495 | 10 | 40 | |
| BLK1 | BLANK | 10 | 10 | 40 | U |
| DG91802 | SRM1 | 495 | 10 | 40 | |
| DUP1 | LAB DUP | 418 | 10 | 40 | |
| BLK2 | BLANK | 10 | 10 | 40 | U |
| DG91802 | SRM2 | 493 | 10 | 40 | |
| DUP2 | LAB DUP | 431 | 10 | 40 | |

DUP 1: D19G021-05

| | | |
|------------------|-------|---------|
| SRM TV, mg/L | 511 | |
| SRM, mg/L | 495 | |
| % Recovery | 96.87 | % Range |
| Low Range, mg/L | 460 | 90.02 |
| High Range, mg/L | 562 | 109.98 |

| | |
|-----------|------|
| Sample | 418 |
| Duplicate | 404 |
| %RPD | 3.41 |

3Q19 CCR GROUNDWATER REPORT

DUP2: D19G021-10

| | | |
|------------------|-------|---------|
| SRM TV, mg/L | 511 | |
| SRM, mg/L | 493 | |
| % Recovery | 96.48 | % Range |
| Low Range, mg/L | 460 | 90.02 |
| High Range, mg/L | 562 | 109.98 |

| | |
|-----------|------|
| Sample | 435 |
| Duplicate | 431 |
| %RPD | 0.92 |

Qualifier Description

- U Compound was analyzed for but not detected
- I The reported value is between the laboratory MDL and the laboratory PQL

November 13, 2019

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

RE: Project: D19I032
Pace Project No.: 35508074

Dear Mr. Boudreau:

Enclosed are the analytical results for sample(s) received by the laboratory on October 30, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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: D19I032

Pace Project No.: 35508074

Pennsylvania Certification IDs

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
 Guam Certification
 Florida: Cert E871149 SEKS WET
 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 #: 9526
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad
 Wyoming Certification #: 8TMS-L

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
 Alaska DEC- CS/UST/LUST
 Alabama Certification #: 41320
 Arizona Certification# AZ0819
 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
 Maryland Certification: #346
 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
 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
 Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: D19I032
Pace Project No.: 35508074

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: D19I032
Pace Project No.: 35508074

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|------------|--------|----------------|----------------|
| 35508074001 | D19I032-01 | Water | 10/25/19 09:06 | 10/30/19 10:10 |
| 35508074002 | D19I032-02 | Water | 10/25/19 10:44 | 10/30/19 10:10 |
| 35508074003 | D19I032-03 | Water | 10/25/19 12:14 | 10/30/19 10:10 |
| 35508074004 | D19I032-04 | Water | 10/25/19 08:45 | 10/30/19 10:10 |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: D19I032
Pace Project No.: 35508074

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|------------|--------------------------|----------|-------------------|------------|
| 35508074001 | D19I032-01 | EPA 6020B | JOR | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | JDW | 3 | PASI-O |
| 35508074002 | D19I032-02 | EPA 6020B | JOR | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | JDW | 3 | PASI-O |
| 35508074003 | D19I032-03 | EPA 6020B | JOR | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |
| | | EPA 300.0 | JDW | 3 | PASI-O |
| 35508074004 | D19I032-04 | EPA 6020B | JOR | 4 | PASI-A |
| | | EPA 903.1 | MK1 | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | CMC | 1 | PASI-PA |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19I032
Pace Project No.: 35508074

Sample: D19I032-01 **Lab ID: 35508074001** Collected: 10/25/19 09:06 Received: 10/30/19 10:10 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 11/06/19 00:04 | 11/06/19 19:36 | 7440-36-0 | |
| Boron | 63.0 | ug/L | 25.0 | 2.6 | 1 | 11/06/19 00:04 | 11/06/19 19:36 | 7440-42-8 | |
| Lithium | 1.3 I | ug/L | 2.5 | 0.42 | 1 | 11/06/19 00:04 | 11/06/19 19:36 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 11/06/19 00:04 | 11/06/19 19:36 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 37.5 | mg/L | 5.0 | 2.5 | 1 | | 11/08/19 01:50 | 16887-00-6 | |
| Fluoride | 0.32 | mg/L | 0.050 | 0.034 | 1 | | 11/08/19 01:50 | 16984-48-8 | |
| Sulfate | 42.9 | mg/L | 5.0 | 2.5 | 1 | | 11/08/19 01:50 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19I032
Pace Project No.: 35508074

Sample: D19I032-02 **Lab ID: 35508074002** Collected: 10/25/19 10:44 Received: 10/30/19 10:10 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|----------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.13 I | ug/L | 0.50 | 0.11 | 1 | 11/06/19 00:04 | 11/06/19 19:44 | 7440-36-0 | V |
| Boron | 2630 | ug/L | 1250 | 128 | 50 | 11/06/19 00:04 | 11/07/19 11:01 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 11/06/19 00:04 | 11/06/19 19:44 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 11/06/19 00:04 | 11/06/19 19:44 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 19.8 | mg/L | 5.0 | 2.5 | 1 | | 11/07/19 23:50 | 16887-00-6 | |
| Fluoride | 0.048 I | mg/L | 0.050 | 0.034 | 1 | | 11/07/19 23:50 | 16984-48-8 | |
| Sulfate | 82.3 | mg/L | 5.0 | 2.5 | 1 | | 11/07/19 23:50 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19I032
Pace Project No.: 35508074

Sample: D19I032-03 **Lab ID: 35508074003** Collected: 10/25/19 12:14 Received: 10/30/19 10:10 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|---------------|---------------------------------------------------------------|-------|-------|----|----------------|----------------|------------|------|
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | |
| Antimony | 0.11 U | ug/L | 0.50 | 0.11 | 1 | 11/06/19 00:04 | 11/06/19 20:20 | 7440-36-0 | |
| Boron | 656 | ug/L | 250 | 25.5 | 10 | 11/06/19 00:04 | 11/07/19 11:05 | 7440-42-8 | |
| Lithium | 15.5 | ug/L | 2.5 | 0.42 | 1 | 11/06/19 00:04 | 11/06/19 20:20 | 7439-93-2 | |
| Thallium | 0.11 | ug/L | 0.10 | 0.060 | 1 | 11/06/19 00:04 | 11/06/19 20:20 | 7440-28-0 | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 | | | | | | | |
| Chloride | 4.7 I | mg/L | 5.0 | 2.5 | 1 | | 11/08/19 00:13 | 16887-00-6 | |
| Fluoride | 0.097 | mg/L | 0.050 | 0.034 | 1 | | 11/08/19 00:13 | 16984-48-8 | |
| Sulfate | 65.9 | mg/L | 5.0 | 2.5 | 1 | | 11/08/19 00:13 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D19I032

Pace Project No.: 35508074

Sample: D19I032-04 **Lab ID: 35508074004** Collected: 10/25/19 08:45 Received: 10/30/19 10:10 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---------------------------------------------------------------|----------------|-------|------|-------|----|----------------|----------------|-----------|------|
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Antimony | 0.11 I | ug/L | 0.50 | 0.11 | 1 | 11/06/19 00:04 | 11/06/19 19:32 | 7440-36-0 | V |
| Boron | 2.6 U | ug/L | 25.0 | 2.6 | 1 | 11/06/19 00:04 | 11/06/19 19:32 | 7440-42-8 | |
| Lithium | 0.42 U | ug/L | 2.5 | 0.42 | 1 | 11/06/19 00:04 | 11/06/19 19:32 | 7439-93-2 | |
| Thallium | 0.060 U | ug/L | 0.10 | 0.060 | 1 | 11/06/19 00:04 | 11/06/19 19:32 | 7440-28-0 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: D19I032
Pace Project No.: 35508074

QC Batch: 507780 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 35508074001, 35508074002, 35508074003, 35508074004

METHOD BLANK: 2726037 Matrix: Water
Associated Lab Samples: 35508074001, 35508074002, 35508074003, 35508074004

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Antimony | ug/L | 0.14 I | 0.50 | 0.11 | 11/06/19 12:07 | |
| Boron | ug/L | 2.6 U | 25.0 | 2.6 | 11/06/19 12:07 | |
| Lithium | ug/L | 0.42 U | 2.5 | 0.42 | 11/06/19 12:07 | |
| Thallium | ug/L | 0.060 U | 0.10 | 0.060 | 11/06/19 12:07 | |

LABORATORY CONTROL SAMPLE: 2726038

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | ug/L | 50 | 53.1 | 106 | 80-120 | |
| Boron | ug/L | 50 | 51.5 | 103 | 80-120 | |
| Lithium | ug/L | 50 | 49.1 | 98 | 80-120 | |
| Thallium | ug/L | 10 | 10.2 | 102 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2726039 2726040

| Parameter | Units | 92451817001 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|----------------|-----------------|-----------|----------|-----------|--------------|-----|---------|------|
| | | | Spike Conc. | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | |
| Antimony | ug/L | ND | 50 | 50 | 54.8 | 54.0 | 110 | 108 | 75-125 | 2 | 20 | |
| Boron | ug/L | ND | 50 | 50 | 50.8 | 51.7 | 93 | 95 | 75-125 | 2 | 20 | |
| Lithium | ug/L | ND | 50 | 50 | 47.9 | 49.3 | 96 | 98 | 75-125 | 3 | 20 | |
| Thallium | ug/L | ND | 10 | 10 | 10.0 | 10.2 | 100 | 102 | 75-125 | 2 | 20 | |

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 DATA

Project: D19I032
Pace Project No.: 35508074

QC Batch: 585047 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35508074001

METHOD BLANK: 3181173 Matrix: Water
Associated Lab Samples: 35508074001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 11/07/19 22:53 | |
| Fluoride | mg/L | 0.034 U | 0.050 | 0.034 | 11/07/19 22:53 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 11/07/19 22:53 | |

LABORATORY CONTROL SAMPLE: 3181174

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 48.1 | 96 | 90-110 | |
| Fluoride | mg/L | 5 | 5.0 | 100 | 90-110 | |
| Sulfate | mg/L | 50 | 47.5 | 95 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3181849 3181850

| Parameter | Units | 35509815001 | | 3181849 | | 3181850 | | % Rec | % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|----------------|-----------|----------------|-----------|----------------|-------|--------|--------------|-----|---------|------|
| | | MS Result | MS Spike Conc. | MS Result | MS Spike Conc. | MS Result | MS Spike Conc. | | | | | | |
| Chloride | mg/L | 5.7 | 50 | 50 | 53.6 | 53.5 | 96 | 96 | 90-110 | 0 | 20 | | |
| Fluoride | mg/L | 0.69 | 5 | 5 | 5.7 | 5.7 | 100 | 100 | 90-110 | 0 | 20 | | |
| Sulfate | mg/L | 39.4 | 50 | 50 | 92.1 | 91.8 | 105 | 105 | 90-110 | 0 | 20 | | |

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 DATA

Project: D19I032
Pace Project No.: 35508074

QC Batch: 585049 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 35508074002, 35508074003

METHOD BLANK: 3181179 Matrix: Water
Associated Lab Samples: 35508074002, 35508074003

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | 2.5 U | 5.0 | 2.5 | 11/07/19 23:05 | |
| Fluoride | mg/L | 0.034 U | 0.050 | 0.034 | 11/07/19 23:05 | |
| Sulfate | mg/L | 2.5 U | 5.0 | 2.5 | 11/07/19 23:05 | |

LABORATORY CONTROL SAMPLE: 3181180

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 48.3 | 97 | 90-110 | |
| Fluoride | mg/L | 5 | 5.0 | 100 | 90-110 | |
| Sulfate | mg/L | 50 | 48.1 | 96 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3181881 3181882

| Parameter | Units | 35508859001 | | 3181881 | | 3181882 | | % Rec | % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|----------------|-----------------|-----------|------------|-----|-------|--------|--------------|-----|---------|------|
| | | Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | | |
| Chloride | mg/L | 6.0 | 50 | 50 | 54.5 | 54.4 | 97 | 97 | 90-110 | 0 | 20 | | |
| Fluoride | mg/L | 0.034 U | 5 | 5 | 5.0 | 5.0 | 101 | 101 | 90-110 | 0 | 20 | | |
| Sulfate | mg/L | 3.2 I | 50 | 50 | 50.2 | 50.2 | 94 | 94 | 90-110 | 0 | 20 | | |

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19I032
Pace Project No.: 35508074

Sample: D19I032-01 **Lab ID: 35508074001** Collected: 10/25/19 09:06 Received: 10/30/19 10:10 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|----------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.980U ± 0.685 (0.980) C:NA T:84% | pCi/L | 11/11/19 11:38 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.00 ± 0.448 (0.735) C:76% T:85% | pCi/L | 11/11/19 16:31 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.82 ± 1.13 (1.72) | pCi/L | 11/12/19 10:42 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19I032
Pace Project No.: 35508074

Sample: D19I032-02 **Lab ID: 35508074002** Collected: 10/25/19 10:44 Received: 10/30/19 10:10 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|---------------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.937 ± 0.558 (0.530) C:NA T:93% | pCi/L | 11/11/19 11:38 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.11 ± 0.454 (0.693) C:76% T:80% | pCi/L | 11/11/19 16:32 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.05 ± 1.01 (1.22) | pCi/L | 11/13/19 14:00 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19I032
Pace Project No.: 35508074

Sample: D19I032-03 **Lab ID: 35508074003** Collected: 10/25/19 12:14 Received: 10/30/19 10:10 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|-----------------------------|--------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.995 ± 0.660 (0.869) C:NA T:94% | pCi/L | 11/11/19 11:38 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 1.14 ± 0.434 (0.623) C:74% T:87% | pCi/L | 11/11/19 16:32 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 2.13 ± 1.09 (1.49) | pCi/L | 11/13/19 14:00 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: D19I032
Pace Project No.: 35508074

Sample: D19I032-04 **Lab ID: 35508074004** Collected: 10/25/19 08:45 Received: 10/30/19 10:10 Matrix: Water
PWS: Site ID: Sample Type:

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--------------|--------------------------|----------------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.05U ± 0.505 (1.05) C:NA T:87% | pCi/L | 11/11/19 11:38 | 13982-63-3 | |
| Radium-228 | EPA 904.0 | 0.752U ± 0.361 (0.752) C:75% T:79% | pCi/L | 11/11/19 16:32 | 15262-20-1 | |
| Total Radium | Total Radium Calculation | 1.80U ± 0.866 (1.80) | pCi/L | 11/13/19 14:00 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: D19I032
 Pace Project No.: 35508074

QC Batch: 369232 Analysis Method: EPA 903.1
 QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
 Associated Lab Samples: 35508074001, 35508074002, 35508074003, 35508074004

METHOD BLANK: 1791500 Matrix: Water
 Associated Lab Samples: 35508074001, 35508074002, 35508074003, 35508074004

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-226 | 0.0692 ± 0.450 (0.908) C:NA T:78% | pCi/L | 11/11/19 11:20 | |

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: D19I032
Pace Project No.: 35508074

QC Batch: 369234 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 35508074001, 35508074002, 35508074003, 35508074004

METHOD BLANK: 1791501 Matrix: Water
Associated Lab Samples: 35508074001, 35508074002, 35508074003, 35508074004

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.339 ± 0.367 (0.765) C:70% T:83% | pCi/L | 11/11/19 12:33 | |

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: D19I032
Pace Project No.: 35508074

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.
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.

LABORATORIES

PASI-A Pace Analytical Services - Asheville
PASI-O Pace Analytical Services - Ormond Beach
PASI-PA Pace Analytical Services - Greensburg

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.
V Indicates that the analyte was detected in both the sample and the associated method blank.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D19I032

Pace Project No.: 35508074

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|------------|--------------------------|----------|-------------------|------------------|
| 35508074001 | D19I032-01 | EPA 3010A | 507780 | EPA 6020B | 507801 |
| 35508074002 | D19I032-02 | EPA 3010A | 507780 | EPA 6020B | 507801 |
| 35508074003 | D19I032-03 | EPA 3010A | 507780 | EPA 6020B | 507801 |
| 35508074004 | D19I032-04 | EPA 3010A | 507780 | EPA 6020B | 507801 |
| 35508074001 | D19I032-01 | EPA 903.1 | 369232 | | |
| 35508074002 | D19I032-02 | EPA 903.1 | 369232 | | |
| 35508074003 | D19I032-03 | EPA 903.1 | 369232 | | |
| 35508074004 | D19I032-04 | EPA 903.1 | 369232 | | |
| 35508074001 | D19I032-01 | EPA 904.0 | 369234 | | |
| 35508074002 | D19I032-02 | EPA 904.0 | 369234 | | |
| 35508074003 | D19I032-03 | EPA 904.0 | 369234 | | |
| 35508074004 | D19I032-04 | EPA 904.0 | 369234 | | |
| 35508074001 | D19I032-01 | Total Radium Calculation | 370512 | | |
| 35508074002 | D19I032-02 | Total Radium Calculation | 370741 | | |
| 35508074003 | D19I032-03 | Total Radium Calculation | 370741 | | |
| 35508074004 | D19I032-04 | Total Radium Calculation | 370741 | | |
| 35508074001 | D19I032-01 | EPA 300.0 | 585047 | | |
| 35508074002 | D19I032-02 | EPA 300.0 | 585049 | | |
| 35508074003 | D19I032-03 | EPA 300.0 | 585049 | | |

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER
Deerhaven Generating Station
D19I032

WO#: 35508074



SENDING LABORATORY:

Gainesville Regional Utilities
Deerhaven Generating Station
10001 NW 13th Street
Gainesville, FL 32653
Phone: 352-334-3434
Fax: 352-334-3149
Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Pace Analytical
8 East Tower Circle
Ormond Beach, FL 32174
Phone : (386) 672-5668
Fax: (386) 673-4001

| Analysis | Expires | Laboratory ID | Comments |
|----------|---------|---------------|----------|
|----------|---------|---------------|----------|

Sample Name: LF-2
Sample ID: D19I032-01 Water Sampled: 25-Oct-19 09:06

| | |
|--------------------------|-----------------|
| D_Anions - Fluoride | 22-Nov-19 09:06 |
| D_Anions - Sulfates | 22-Nov-19 09:06 |
| D_Antimony by 6020 | 22-Apr-20 09:06 |
| D_Boron by 6020 | 22-Apr-20 09:06 |
| D_Lithium by 6020 | 22-Apr-20 09:06 |
| D_Radium226+228_Combined | 18-Apr-20 09:06 |
| D_Thallium by 6020 | 22-Apr-20 09:06 |
| D_Anions - Chlorides | 22-Nov-19 09:06 |

Containers Supplied:
D_HDPE, HNO3 pH<2 - 250mL extra (B)
D_HDPE, Chill @<6*C - 250mL (C)
D_HDPE, HNO3 pH<2 - 2000mL (D)

Sample Name: LF-3
Sample ID: D19I032-02 Water Sampled: 25-Oct-19 10:44

| | |
|--------------------------|-----------------|
| D_Thallium by 6020 | 22-Apr-20 10:44 |
| D_Anions - Chlorides | 22-Nov-19 10:44 |
| D_Anions - Fluoride | 22-Nov-19 10:44 |
| D_Anions - Sulfates | 22-Nov-19 10:44 |
| D_Antimony by 6020 | 22-Apr-20 10:44 |
| D_Boron by 6020 | 22-Apr-20 10:44 |
| D_Radium226+228_Combined | 18-Apr-20 10:44 |
| D_Lithium by 6020 | 22-Apr-20 10:44 |

Containers Supplied:
D_HDPE, HNO3 pH<2 - 250mL extra (B)
D_HDPE, Chill @<6*C - 250mL (C)
D_HDPE, HNO3 pH<2 - 2000mL (D)

Shipped via Fed Ex

Released By: K. Bralufield Date: 10/28/19 Received By: AS / Pace Date: 10/29/19 1030
Released By: _____ Date: _____ Received By: _____ Date: 25:6 7383



SUBCONTRACT ORDER
Deerhaven Generating Station
D19I032

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------------|-----------------|--------------------------------|----------|
| Sample Name: LF-4 | | | |
| Sample ID: D19I032-03 | Water | Sampled:25-Oct-19 12:14 | |
| D_Anions - Chlorides | 22-Nov-19 12:14 | | |
| D_Anions - Fluoride | 22-Nov-19 12:14 | | |
| D_Anions - Sulfates | 22-Nov-19 12:14 | | |
| D_Antimony by 6020 | 22-Apr-20 12:14 | | |
| D_Boron by 6020 | 22-Apr-20 12:14 | | |
| D_Lithium by 6020 | 22-Apr-20 12:14 | | |
| D_Radium226+228_Combined | 18-Apr-20 12:14 | | |
| D_Thallium by 6020 | 22-Apr-20 12:14 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, Chill @<6*C - 250mL (C) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |
| Sample Name: EBLANK | | | |
| Sample ID: D19I032-04 | Water | Sampled:24-Oct-19 08:45 | |
| D_Thallium by 6020 | 21-Apr-20 08:45 | | |
| D_Antimony by 6020 | 21-Apr-20 08:45 | | |
| D_Boron by 6020 | 21-Apr-20 08:45 | | |
| D_Lithium by 6020 | 21-Apr-20 08:45 | | |
| D_Radium226+228_Combined | 17-Apr-20 08:45 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 250mL extra (B) | | | |
| D_HDPE, HNO3 pH<2 - 2000mL (D) | | | |

Shipped via Fed Ex

| | | | |
|----------------------|-----------------|------------------|----------------------|
| <i>K. Brakefield</i> | <i>10/28/19</i> | <i>AS / Pace</i> | <i>10/29/19 1030</i> |
| Released By | Date | Received By | Date |
| | | | <i>25-67353</i> |
| Released By | Date | Received By | Date |



Document Name:
Sample Condition Upon Receipt Form
Document No.:
F-FL-C-007 rev. 13

Document Revised:
May 30, 2018
Issuing Authority:
Pace Florida Quality Office

WO# : 35508074

(SCUR)

Project #
Project Manager:
Client:

PM: JSB
CLIENT: DEELAB
Due Date: 11/14/19

Date and Initials of person:

Examining contents: AS
Label: Saw
Deliver: Saw
pH: 7.1

Thermometer Used: T-353 Date: 10/29/19 Time: 1057 Initials: AS

State of Origin: _____ For WV projects, all containers verified to $\pm 6^\circ\text{C}$

| | | | | |
|--------------------|----------------------|---------------------------------|----------------------|--------------------------------------------------------------------|
| Cooler #1 Temp. °C | <u>0.7</u> (Visual) | <u>0.2</u> (Correction Factor) | <u>0.6</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #2 Temp. °C | <u>23.7</u> (Visual) | <u>-0.2</u> (Correction Factor) | <u>23.5</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #3 Temp. °C | <u>25.8</u> (Visual) | <u>-0.2</u> (Correction Factor) | <u>25.6</u> (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #4 Temp. °C | _____ (Visual) | _____ (Correction Factor) | _____ (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #5 Temp. °C | _____ (Visual) | _____ (Correction Factor) | _____ (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |
| Cooler #6 Temp. °C | _____ (Visual) | _____ (Correction Factor) | _____ (Actual) | <input type="checkbox"/> Samples on ice, cooling process has begun |

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____
 Shipping Method: First Overnight Priority Overnight Standard Overnight Ground International Priority
 Other 2 day

Billing: Recipient Sender Third Party Credit Card Unknown

Tracking # 8139 3749 9776

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Ice: Wet Blue Dry 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Preservation Information: Preservative: _____ Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____ |
| Chain of Custody Filled Out | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Relinquished Signature & Sampler Name COC | <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 TAT requested on COC | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" 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 type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Sample Labels match COC (sample IDs & 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 | |
| All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Headspace in VOA Vials? (>6mm): | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | |
| Trip Blank Present: | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | |

Client Notification/ Resolution: Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments): _____



Kanapaha Laboratory

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

Florida Department of Health Certification E52099

November 20, 2019

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

RE: Environmental

Enclosed are the results of analyses for samples received by the laboratory on 10/29/2019. 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 Dlhos
Laboratory Supervisor



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

Project: Environmental
Project Number: D19I032
Project Manager: Jeff Boudreau

Reported:
11/20/2019 16:10

ANALYTICAL REPORT FOR SAMPLES

| Laboratory ID | Sample ID | Matrix | Date Sampled | Date Received |
|----------------------|-------------------|---------------|---------------------|----------------------|
| K19J107-01 | D19I032-01 (LF-2) | Groundwater | 10/25/2019 09:06 | 10/29/2019 16:00 |
| K19J107-02 | D19I032-02 (LF-3) | Groundwater | 10/25/2019 10:44 | 10/29/2019 16:00 |
| K19J107-03 | D19I032-03 (LF-4) | Groundwater | 10/25/2019 12:14 | 10/29/2019 16:00 |



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

Project: Environmental
Project Number: D19I032
Project Manager: Jeff Boudreau

Reported:
11/20/2019 16:10

D19I032-01 (LF-2)
K19J107-01 (Groundwater, Grab)
Collected: 10/25/2019 9:06 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Barium | 47.9 | | 0.2 | 0.8 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Beryllium | 0.14 | I | 0.10 | 0.40 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Calcium | 24.6 | | 0.10 | 0.40 | mg/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Chromium | 4.3 | I | 1.2 | 4.8 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Cobalt | 5.0 | | 1.0 | 4.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 11/12/2019 | 11/13/2019 | EPA 245.1 |

D19I032-02 (LF-3)

K19J107-02 (Groundwater, Grab)
Collected: 10/25/2019 10:44 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Barium | 46.1 | | 0.2 | 0.8 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Calcium | 10.5 | | 0.10 | 0.40 | mg/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Chromium | 7.3 | | 1.2 | 4.8 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 11/12/2019 | 11/13/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19I032
Project Manager: Jeff Boudreau

Reported:
11/20/2019 16:10

D19I032-03 (LF-4)
K19J107-03 (Groundwater, Grab)
Collected: 10/25/2019 12:14 pm

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Barium | 47.3 | | 0.2 | 0.8 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Calcium | 15.8 | | 0.10 | 0.40 | mg/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Chromium | 2.1 | I | 1.2 | 4.8 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Cobalt | 1.2 | I | 1.0 | 4.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 10/30/2019 | 11/04/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 11/12/2019 | 11/13/2019 | EPA 245.1 |



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

Project: Environmental
Project Number: D19I032
Project Manager: Jeff Boudreau

Reported:
11/20/2019 16:10

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 |
|---------|--------|------|-----|-----|-------|-------------|---------------|------|--------------|-----|-----------|
|---------|--------|------|-----|-----|-------|-------------|---------------|------|--------------|-----|-----------|

Batch B19J230 - EPA 200.7

Blank (B19J230-BLK1)

Prepared: 10/30/2019 Analyzed: 11/4/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|--|--|--|--|--|
| Molybdenum | 2.5 U | | 2.5 | 10.0 | 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 | | | | | | |
| Barium | 0.2 U | | 0.2 | 0.8 | ug/L | | | | | | |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | | | | | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | | | | | |
| Calcium | 0.10 U | | 0.10 | 0.40 | mg/L | | | | | | |
| Chromium | 1.2 U | | 1.2 | 4.8 | ug/L | | | | | | |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | | | | | |

LCS (B19J230-BS1)

Prepared: 10/30/2019 Analyzed: 11/4/2019

| | | | | | | | | | | | |
|------------|------|--|--|--|------|------|--|------|--------|--|--|
| Calcium | 25.9 | | | | mg/L | 25.0 | | 104 | 90-110 | | |
| Selenium | 92.3 | | | | ug/L | 100 | | 92.3 | 90-110 | | |
| Beryllium | 102 | | | | ug/L | 100 | | 102 | 90-110 | | |
| Barium | 99.2 | | | | ug/L | 100 | | 99.2 | 90-110 | | |
| Arsenic | 102 | | | | ug/L | 100 | | 102 | 90-110 | | |
| Cadmium | 103 | | | | ug/L | 101 | | 102 | 90-110 | | |
| Molybdenum | 97.1 | | | | ug/L | 100 | | 97.1 | 90-110 | | |
| Cobalt | 100 | | | | ug/L | 101 | | 99.3 | 90-110 | | |
| Lead | 101 | | | | ug/L | 100 | | 101 | 90-110 | | |
| Chromium | 95.9 | | | | ug/L | 100 | | 95.9 | 90-110 | | |

Duplicate (B19J230-DUP1)

Source: K19J107-03

Prepared: 10/30/2019 Analyzed: 11/4/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|------|--|--|-------|--|
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | 145 | |
| Barium | 47.3 | | 0.2 | 0.8 | ug/L | | 47.3 | | | 0.102 | |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | ND | | | 23.1 | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | NR | |
| Calcium | 15.7 | | 0.10 | 0.40 | mg/L | | 15.8 | | | 0.687 | |
| Chromium | 2.11 | | 1.2 | 4.8 | ug/L | | 2.1 | | | 1.26 | |
| Cobalt | 1.31 | | 1.0 | 4.0 | ug/L | | 1.2 | | | 0.851 | |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | ND | | | NR | |
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | ND | | | NR | |

Matrix Spike (B19J230-MS1)

Source: K19J107-03

Prepared: 10/30/2019 Analyzed: 11/4/2019

| | | | | | | | | | | | |
|------------|------|--|------|------|------|------|------|------|--------|--|--|
| Molybdenum | 513 | | 2.5 | 10.0 | ug/L | 500 | ND | 103 | 90-110 | | |
| Cadmium | 51.9 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 104 | 90-110 | | |
| Arsenic | 209 | | 2.5 | 10.0 | ug/L | 200 | ND | 105 | 90-110 | | |
| Barium | 557 | | 0.2 | 0.8 | ug/L | 500 | 47.3 | 102 | 90-110 | | |
| Selenium | 48.2 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 96.4 | 90-110 | | |
| Beryllium | 205 | | 0.10 | 0.40 | ug/L | 200 | ND | 102 | 90-110 | | |



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

Project: Environmental
Project Number: D19I032
Project Manager: Jeff Boudreau

Reported:
11/20/2019 16:10

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 |
|---------|--------|------|-----|-----|-------|-------------|---------------|------|--------------|-----|-----------|
|---------|--------|------|-----|-----|-------|-------------|---------------|------|--------------|-----|-----------|

Batch B19J230 - EPA 200.7 (Continued)

| Matrix Spike (B19J230-MS1) | | Source: K19J107-03 | | | | Prepared: 10/30/2019 | | Analyzed: 11/4/2019 | |
|-----------------------------------|------|---------------------------|------|------|------|----------------------|------|---------------------|--------|
| Lead | 212 | | 3.0 | 12.0 | ug/L | 200 | ND | 106 | 90-110 |
| Cobalt | 209 | | 1.0 | 4.0 | ug/L | 200 | 1.2 | 104 | 90-110 |
| Calcium | 40.6 | | 0.10 | 0.40 | mg/L | 25.0 | 15.8 | 99.0 | 90-110 |
| Chromium | 202 | | 1.2 | 4.8 | ug/L | 200 | 2.1 | 100 | 90-110 |

Batch B19K074 - MERCURY

| Blank (B19K074-BLK1) | | | | | | Prepared: 11/12/2019 | | Analyzed: 11/13/2019 | |
|-----------------------------|---------|--|-------|-------|------|----------------------|--|----------------------|--|
| Mercury | 0.100 U | | 0.100 | 0.400 | ug/L | | | | |

| LCS (B19K074-BS1) | | | | | | Prepared: 11/12/2019 | | Analyzed: 11/13/2019 | |
|--------------------------|------|--|-------|-------|------|----------------------|--|----------------------|--------|
| Mercury | 2.07 | | 0.100 | 0.400 | ug/L | 2.00 | | 103 | 90-110 |

| Duplicate (B19K074-DUP1) | | Source: K19J107-02 | | | | Prepared: 11/12/2019 | | Analyzed: 11/13/2019 | |
|---------------------------------|---------|---------------------------|-------|-------|------|----------------------|----|----------------------|----|
| Mercury | 0.100 U | | 0.100 | 0.400 | ug/L | | ND | | NR |

| Matrix Spike (B19K074-MS1) | | Source: K19J107-02 | | | | Prepared: 11/12/2019 | | Analyzed: 11/13/2019 | |
|-----------------------------------|------|---------------------------|-------|-------|------|----------------------|----|----------------------|--------|
| Mercury | 2.04 | | 0.100 | 0.400 | ug/L | 2.00 | ND | 102 | 90-110 |



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

Project: Environmental
Project Number: D19I032
Project Manager: Jeff Boudreau

Reported:
11/20/2019 16:10

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 |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19I032

SENDING LABORATORY:

Gainesville Regional Utilities
 Deerhaven Generating Station
 10001 NW 13th Street
 Gainesville, FL 32653
 Phone: 352-334-3434
 Fax: 352-334-3149
 Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Kanapaha Laboratory
 3901 SW 63rd BLVD
 Gainesville, FL/USA 32608
 Phone :352-393-6777
 Fax: 352-334-2732

| Analysis | Expires | Laboratory ID | Comments | |
|-------------------------------|-----------------|-------------------------|---------------------------------|--|
| Sample Name: LF-2 | | | | |
| Sample ID: D19I032-01 | Water | Sampled:25-Oct-19 09:06 | K19J107-01 | |
| K_Barium | 22-Apr-20 09:06 | | | |
| K_Beryllium | 22-Apr-20 09:06 | | | |
| K_Calcium | 22-Apr-20 09:06 | | * Need to add Cadmium + Mercury | |
| K_Chromium | 22-Apr-20 09:06 | | | |
| K_Cobalt | 22-Apr-20 09:06 | | | |
| K_Lead | 22-Apr-20 09:06 | | | |
| K_Molybdenum | 22-Apr-20 09:06 | | | |
| K_Selenium | 22-Apr-20 09:06 | | | |
| K_Arsenic | 22-Apr-20 09:06 | | | |
| Containers Supplied: | | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | | |

| | | | | |
|-------------------------------|-----------------|-------------------------|---------------------------------|--|
| Sample Name: LF-3 | | | | |
| Sample ID: D19I032-02 | Water | Sampled:25-Oct-19 10:44 | K19J107-02 | |
| K_Cobalt | 22-Apr-20 10:44 | | | |
| K_Arsenic | 22-Apr-20 10:44 | | | |
| K_Barium | 22-Apr-20 10:44 | | * Need to add Cadmium + Mercury | |
| K_Beryllium | 22-Apr-20 10:44 | | | |
| K_Chromium | 22-Apr-20 10:44 | | | |
| K_Lead | 22-Apr-20 10:44 | | | |
| K_Molybdenum | 22-Apr-20 10:44 | | | |
| K_Selenium | 22-Apr-20 10:44 | | | |
| K_Calcium | 22-Apr-20 10:44 | | | |
| Containers Supplied: | | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | | |

via inter-office mail

Released By: K Bradford Date: 10/29/19 Received By: John M. [Signature] Date: 10/29/19 @ 1600

Released By: _____ Date: _____ Received By: _____ Date: _____



SUBCONTRACT ORDER
Deerhaven Generating Station
D19I032

| Analysis | Expires | Laboratory ID | Comments |
|-------------------------------|-----------------|--------------------------|---------------------------------|
| Sample Name: LF-4 | | | |
| Sample ID: D19I032-03 | Water | Sampled: 25-Oct-19 12:14 | K19J107-03 |
| K_Selenium | 22-Apr-20 12:14 | | |
| K_Arsenic | 22-Apr-20 12:14 | | |
| K_Barium | 22-Apr-20 12:14 | | |
| K_Beryllium | 22-Apr-20 12:14 | | * Need to add Cadmium + Mercury |
| K_Calcium | 22-Apr-20 12:14 | | |
| K_Chromium | 22-Apr-20 12:14 | | |
| K_Cobalt | 22-Apr-20 12:14 | | |
| K_Lead | 22-Apr-20 12:14 | | |
| K_Molybdenum | 22-Apr-20 12:14 | | |
| <i>Containers Supplied:</i> | | | |
| D_HDPE, HNO3 pH<2 - 500mL (A) | | | |

Via Inter-office mail

| | | | |
|----------------------|-----------------|----------------|------------------------|
| <i>R. Brakefield</i> | <i>10/29/19</i> | <i>JchMDen</i> | <i>10/29/19 @ 1600</i> |
| Released By | Date | Received By | Date |

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
|-------------|------|-------------|------|



Kanapaha Laboratory

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

Florida Department of Health Certification E52099

November 22, 2019

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

RE: Barnstead

Enclosed are the results of analyses for samples received by the laboratory on 10/29/2019. 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



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

Project: Barnstead
Project Number: D19I033
Project Manager: Jeff Boudreau

Reported:
11/22/2019 11:47

ANALYTICAL REPORT FOR SAMPLES

| Laboratory ID | Sample ID | Matrix | Date Sampled | Date Received |
|----------------------|------------------------|---------------|---------------------|----------------------|
| K19J108-01 | D19I033-01 (Barnstead) | Water | 10/21/2019 07:42 | 10/29/2019 16:00 |



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

Project: Barnstead
Project Number: D19I033
Project Manager: Jeff Boudreau

Reported:
11/22/2019 11:47

D19I033-01 (Barnstead)

K19J108-01 (Water, Grab)

Collected: 10/21/2019 7:42 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|------|---|------|------|------|---|------------|------------|-----------|
| Aluminum | 5.0 | U | 5.0 | 20.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Barium | 0.4 | I | 0.2 | 0.8 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Calcium | 0.10 | U | 0.10 | 0.40 | mg/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Chromium | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Copper | 1.5 | U | 1.5 | 6.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Iron | 4.2 | U | 4.2 | 16.8 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Magnesium | 0.01 | U | 0.01 | 0.04 | mg/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Manganese | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Nickel | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Potassium | 0.10 | U | 0.10 | 0.40 | mg/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Silver | 0.6 | U | 0.6 | 2.4 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Sodium | 0.20 | U | 0.20 | 0.80 | mg/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Strontium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Vanadium | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |
| Zinc | 1.8 | U | 1.8 | 7.2 | ug/L | 1 | 11/05/2019 | 11/11/2019 | EPA 200.7 |



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

Project: Barnstead
Project Number: D19I033
Project Manager: Jeff Boudreau

Reported:
11/22/2019 11:47

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 B19K025 - EPA 200.7

Blank (B19K025-BLK1)

Prepared: 11/5/2019 Analyzed: 11/11/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|--|--|--|--|--|
| Calcium | 0.10 U | | 0.10 | 0.40 | mg/L | | | | | | |
| Strontium | 0.3 U | | 0.3 | 1.2 | ug/L | | | | | | |
| Potassium | 0.10 U | | 0.10 | 0.40 | mg/L | | | | | | |
| Vanadium | 3.0 U | | 3.0 | 12.0 | ug/L | | | | | | |
| Manganese | 1.0 U | | 1.0 | 4.0 | ug/L | | | | | | |
| Iron | 4.2 U | | 4.2 | 16.8 | ug/L | | | | | | |
| Chromium | 1.2 U | | 1.2 | 4.8 | ug/L | | | | | | |
| Copper | 1.5 U | | 1.5 | 6.0 | ug/L | | | | | | |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | | | | | |
| Aluminum | 5.0 U | | 5.0 | 20.0 | ug/L | | | | | | |
| Silver | 0.6 U | | 0.6 | 2.4 | ug/L | | | | | | |
| Magnesium | 0.01 U | | 0.01 | 0.04 | mg/L | | | | | | |
| Sodium | 0.20 U | | 0.20 | 0.80 | mg/L | | | | | | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | | | | | |
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | | | | | |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | | | | | |
| Barium | 0.2 U | | 0.2 | 0.8 | ug/L | | | | | | |
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | | | | | |
| Nickel | 1.0 U | | 1.0 | 4.0 | ug/L | | | | | | |
| Zinc | 1.8 U | | 1.8 | 7.2 | ug/L | | | | | | |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | | | | | |

LCS (B19K025-BS1)

Prepared: 11/5/2019 Analyzed: 11/11/2019

| | | | | | | | | | | | |
|------------|------|--|--|------|------|--|--|------|--------|--|--|
| Lead | 102 | | | ug/L | 100 | | | 102 | 90-110 | | |
| Iron | 98.2 | | | ug/L | 100 | | | 98.2 | 90-110 | | |
| Zinc | 101 | | | ug/L | 101 | | | 99.9 | 90-110 | | |
| Molybdenum | 97.3 | | | ug/L | 100 | | | 97.3 | 90-110 | | |
| Chromium | 95.7 | | | ug/L | 100 | | | 95.7 | 90-110 | | |
| Potassium | 25.6 | | | mg/L | 25.0 | | | 102 | 90-110 | | |
| Manganese | 98.9 | | | ug/L | 101 | | | 97.9 | 90-110 | | |
| Nickel | 96.7 | | | ug/L | 102 | | | 94.8 | 90-110 | | |
| Copper | 100 | | | ug/L | 101 | | | 99.1 | 90-110 | | |
| Cobalt | 100 | | | ug/L | 101 | | | 99.3 | 90-110 | | |
| Calcium | 24.8 | | | mg/L | 25.0 | | | 99.2 | 90-110 | | |
| Cadmium | 101 | | | ug/L | 101 | | | 100 | 90-110 | | |
| Beryllium | 99.0 | | | ug/L | 100 | | | 99.0 | 90-110 | | |
| Barium | 97.5 | | | ug/L | 100 | | | 97.5 | 90-110 | | |
| Arsenic | 101 | | | ug/L | 100 | | | 101 | 90-110 | | |
| Aluminum | 97.5 | | | ug/L | 100 | | | 97.5 | 90-110 | | |
| Magnesium | 25.0 | | | mg/L | 24.8 | | | 101 | 90-110 | | |
| Vanadium | 100 | | | ug/L | 101 | | | 99.3 | 90-110 | | |
| Strontium | 97.1 | | | ug/L | 100 | | | 97.1 | 90-110 | | |



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

Project: Barnstead
Project Number: D19I033
Project Manager: Jeff Boudreau

Reported:
11/22/2019 11:47

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 B19K025 - EPA 200.7 (Continued)

LCS (B19K025-BS1)

Prepared: 11/5/2019 Analyzed: 11/11/2019

| | | | | | | | | | | | |
|----------|------|--|--|--|------|------|--|------|--------|--|--|
| Sodium | 23.7 | | | | mg/L | 25.2 | | 94.0 | 90-110 | | |
| Silver | 49.4 | | | | ug/L | 50.9 | | 97.0 | 90-110 | | |
| Selenium | 92.7 | | | | ug/L | 100 | | 92.7 | 90-110 | | |

Duplicate (B19K025-DUP1)

Source: K19J105-06

Prepared: 11/5/2019 Analyzed: 11/11/2019

| | | | | | | | | | | | |
|------------|--------|--|------|------|------|--|------|--|--|-------|--|
| Sodium | 59.1 | | 0.20 | 0.80 | mg/L | | 58.2 | | | 1.07 | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | NR | |
| Zinc | 1.8 U | | 1.8 | 7.2 | ug/L | | ND | | | 73.9 | |
| Barium | 24.7 | | 0.2 | 0.8 | ug/L | | 24.5 | | | 0.514 | |
| Potassium | 1.98 | | 0.10 | 0.40 | mg/L | | 1.95 | | | 1.26 | |
| Vanadium | 9.21 | | 3.0 | 12.0 | ug/L | | 8.9 | | | 2.34 | |
| Silver | 0.6 U | | 0.6 | 2.4 | ug/L | | ND | | | NR | |
| Manganese | 44.8 | | 1.0 | 4.0 | ug/L | | 44.4 | | | 0.625 | |
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |
| Beryllium | 0.10 U | | 0.10 | 0.40 | ug/L | | ND | | | 29.6 | |
| Cobalt | 1.0 U | | 1.0 | 4.0 | ug/L | | ND | | | 10.5 | |
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | 54.5 | |
| Nickel | 2.91 | | 1.0 | 4.0 | ug/L | | 2.9 | | | 0.370 | |
| Calcium | 48.5 | | 0.10 | 0.40 | mg/L | | 48.2 | | | 0.377 | |
| Aluminum | 74.4 | | 5.0 | 20.0 | ug/L | | 73.1 | | | 1.23 | |
| Copper | 1.5 U | | 1.5 | 6.0 | ug/L | | ND | | | NR | |
| Strontium | 100 | | 0.3 | 1.2 | ug/L | | 99.6 | | | 0.343 | |
| Iron | 858 | | 4.2 | 16.8 | ug/L | | 856 | | | 0.116 | |
| Magnesium | 5.59 | | 0.01 | 0.04 | mg/L | | 5.58 | | | 0.127 | |
| Chromium | 1.2 U | | 1.2 | 4.8 | ug/L | | ND | | | 6.35 | |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | ND | | | 42.1 | |
| Selenium | 4.0 U | | 4.0 | 16.0 | ug/L | | ND | | | 25.0 | |

Duplicate (B19K025-DUP2)

Source: K19J105-11

Prepared: 11/5/2019 Analyzed: 11/11/2019

| | | | | | | | | | | | |
|------------|-------|--|------|------|------|--|------|--|--|-------|--|
| Copper | 1.5 U | | 1.5 | 6.0 | ug/L | | ND | | | NR | |
| Vanadium | 3.0 U | | 3.0 | 12.0 | ug/L | | ND | | | 19.1 | |
| Cadmium | 0.3 U | | 0.3 | 1.2 | ug/L | | ND | | | NR | |
| Manganese | 8.1 | | 1.0 | 4.0 | ug/L | | 7.9 | | | 1.44 | |
| Calcium | 15.0 | | 0.10 | 0.40 | mg/L | | 14.9 | | | 0.388 | |
| Molybdenum | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | NR | |
| Zinc | 1.8 U | | 1.8 | 7.2 | ug/L | | ND | | | 29.2 | |
| Silver | 0.6 U | | 0.6 | 2.4 | ug/L | | ND | | | NR | |
| Nickel | 1.0 U | | 1.0 | 4.0 | ug/L | | ND | | | NR | |
| Potassium | 0.341 | | 0.10 | 0.40 | mg/L | | 0.34 | | | 0.210 | |
| Aluminum | 13.91 | | 5.0 | 20.0 | ug/L | | 14.0 | | | 0.558 | |
| Arsenic | 2.5 U | | 2.5 | 10.0 | ug/L | | ND | | | 63.9 | |
| Magnesium | 2.18 | | 0.01 | 0.04 | mg/L | | 2.16 | | | 0.653 | |
| Lead | 3.0 U | | 3.0 | 12.0 | ug/L | | ND | | | NR | |



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

Project: Barnstead
Project Number: D19I033
Project Manager: Jeff Boudreau

Reported:
11/22/2019 11:47

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 B19K025 - EPA 200.7 (Continued)

| Duplicate (B19K025-DUP2) | Source: K19J105-11 | | | | Prepared: 11/5/2019 Analyzed: 11/11/2019 | | | | | | |
|--------------------------|--------------------|--|------|------|------------------------------------------|--|------|--|--|--|-------|
| Selenium | 4.0U | | 4.0 | 16.0 | ug/L | | ND | | | | NR |
| Strontium | 13.6 | | 0.3 | 1.2 | ug/L | | 13.6 | | | | 0.224 |
| Cobalt | 1.0U | | 1.0 | 4.0 | ug/L | | ND | | | | NR |
| Chromium | 1.2U | | 1.2 | 4.8 | ug/L | | ND | | | | NR |
| Barium | 2.6 | | 0.2 | 0.8 | ug/L | | 2.6 | | | | 0.271 |
| Iron | 175 | | 4.2 | 16.8 | ug/L | | 172 | | | | 1.35 |
| Sodium | 2.61 | | 0.20 | 0.80 | mg/L | | 2.59 | | | | 0.571 |
| Beryllium | 0.10U | | 0.10 | 0.40 | ug/L | | ND | | | | NR |

| Matrix Spike (B19K025-MS1) | Source: K19J105-06 | | | | Prepared: 11/5/2019 Analyzed: 11/11/2019 | | | | | | |
|----------------------------|--------------------|--|------|------|------------------------------------------|------|------|------|--------|--|--|
| Strontium | 624 | | 0.3 | 1.2 | ug/L | 500 | 99.6 | 105 | 90-110 | | |
| Beryllium | 210 | | 0.10 | 0.40 | ug/L | 200 | ND | 105 | 90-110 | | |
| Barium | 535 | | 0.2 | 0.8 | ug/L | 500 | 24.5 | 102 | 90-110 | | |
| Vanadium | 536 | | 3.0 | 12.0 | ug/L | 500 | 8.9 | 105 | 90-110 | | |
| Aluminum | 563 | | 5.0 | 20.0 | ug/L | 500 | 73.1 | 97.9 | 90-110 | | |
| Cadmium | 50.6 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 101 | 90-110 | | |
| Calcium | 78.2J | | 0.10 | 0.40 | mg/L | 25.0 | 48.2 | 120 | 90-110 | | |
| Arsenic | 206 | | 2.5 | 10.0 | ug/L | 200 | ND | 103 | 90-110 | | |
| Molybdenum | 512 | | 2.5 | 10.0 | ug/L | 500 | ND | 102 | 90-110 | | |
| Silver | 51.6 | | 0.6 | 2.4 | ug/L | 50.0 | ND | 103 | 90-110 | | |
| Copper | 212 | | 1.5 | 6.0 | ug/L | 200 | ND | 106 | 90-110 | | |
| Magnesium | 30.2 | | 0.01 | 0.04 | mg/L | 25.0 | 5.58 | 98.3 | 90-110 | | |
| Nickel | 199 | | 1.0 | 4.0 | ug/L | 200 | 2.9 | 97.8 | 90-110 | | |
| Cobalt | 204 | | 1.0 | 4.0 | ug/L | 200 | ND | 102 | 90-110 | | |
| Manganese | 241 | | 1.0 | 4.0 | ug/L | 200 | 44.4 | 98.2 | 90-110 | | |
| Sodium | 82.3 | | 0.20 | 0.80 | mg/L | 25.0 | 58.2 | 96.6 | 90-110 | | |
| Lead | 206 | | 3.0 | 12.0 | ug/L | 200 | ND | 103 | 90-110 | | |
| Iron | 1860 | | 4.2 | 16.8 | ug/L | 1000 | 856 | 100 | 90-110 | | |
| Zinc | 197 | | 1.8 | 7.2 | ug/L | 200 | ND | 98.5 | 90-110 | | |
| Potassium | 28.3 | | 0.10 | 0.40 | mg/L | 25.0 | 1.95 | 105 | 90-110 | | |
| Selenium | 48.2 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 96.5 | 90-110 | | |
| Chromium | 195 | | 1.2 | 4.8 | ug/L | 200 | ND | 97.3 | 90-110 | | |

| Matrix Spike (B19K025-MS2) | Source: K19J105-11 | | | | Prepared: 11/5/2019 Analyzed: 11/11/2019 | | | | | | |
|----------------------------|--------------------|--|------|------|------------------------------------------|------|------|------|--------|--|--|
| Manganese | 204 | | 1.0 | 4.0 | ug/L | 200 | 7.9 | 97.9 | 90-110 | | |
| Potassium | 26.4 | | 0.10 | 0.40 | mg/L | 25.0 | 0.34 | 104 | 90-110 | | |
| Strontium | 525 | | 0.3 | 1.2 | ug/L | 500 | 13.6 | 102 | 90-110 | | |
| Magnesium | 27.0 | | 0.01 | 0.04 | mg/L | 25.0 | 2.16 | 99.4 | 90-110 | | |
| Copper | 204 | | 1.5 | 6.0 | ug/L | 200 | ND | 102 | 90-110 | | |
| Arsenic | 202 | | 2.5 | 10.0 | ug/L | 200 | ND | 101 | 90-110 | | |
| Vanadium | 508 | | 3.0 | 12.0 | ug/L | 500 | ND | 102 | 90-110 | | |
| Aluminum | 507 | | 5.0 | 20.0 | ug/L | 500 | 14.0 | 98.6 | 90-110 | | |
| Cobalt | 203 | | 1.0 | 4.0 | ug/L | 200 | ND | 102 | 90-110 | | |



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

Project: Barnstead
Project Number: D19I033
Project Manager: Jeff Boudreau

Reported:
11/22/2019 11:47

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 B19K025 - EPA 200.7 (Continued)

Matrix Spike (B19K025-MS2)

Source: K19J105-11

Prepared: 11/5/2019 Analyzed: 11/11/2019

| | | | | | | | | | | | |
|------------|------|--|------|------|------|------|------|------|--------|--|--|
| Iron | 1150 | | 4.2 | 16.8 | ug/L | 1000 | 172 | 97.9 | 90-110 | | |
| Barium | 508 | | 0.2 | 0.8 | ug/L | 500 | 2.6 | 101 | 90-110 | | |
| Calcium | 40.5 | | 0.10 | 0.40 | mg/L | 25.0 | 14.9 | 102 | 90-110 | | |
| Sodium | 28.5 | | 0.20 | 0.80 | mg/L | 25.0 | 2.59 | 104 | 90-110 | | |
| Nickel | 196 | | 1.0 | 4.0 | ug/L | 200 | ND | 97.9 | 90-110 | | |
| Molybdenum | 505 | | 2.5 | 10.0 | ug/L | 500 | ND | 101 | 90-110 | | |
| Beryllium | 206 | | 0.10 | 0.40 | ug/L | 200 | ND | 103 | 90-110 | | |
| Lead | 204 | | 3.0 | 12.0 | ug/L | 200 | ND | 102 | 90-110 | | |
| Cadmium | 50.5 | | 0.3 | 1.2 | ug/L | 50.0 | ND | 101 | 90-110 | | |
| Zinc | 197 | | 1.8 | 7.2 | ug/L | 200 | ND | 98.5 | 90-110 | | |
| Selenium | 47.4 | | 4.0 | 16.0 | ug/L | 50.0 | ND | 94.7 | 90-110 | | |
| Chromium | 193 | | 1.2 | 4.8 | ug/L | 200 | ND | 96.3 | 90-110 | | |
| Silver | 49.7 | | 0.6 | 2.4 | ug/L | 50.0 | ND | 99.3 | 90-110 | | |



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

Project: Barnstead
Project Number: D19I033
Project Manager: Jeff Boudreau

Reported:
11/22/2019 11:47

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 |



SUBCONTRACT ORDER
Deerhaven Generating Station
D19I033

SENDING LABORATORY:

Gainesville Regional Utilities
 Deerhaven Generating Station
 10001 NW 13th Street
 Gainesville, FL 32653
 Phone: 352-334-3434
 Fax: 352-334-3149
 Project Manager: Jeff Boudreau

RECEIVING LABORATORY:

Kanapaha Laboratory
 3901 SW 63rd BLVD
 Gainesville, FL/USA 32608
 Phone :352-393-6777
 Fax: 352-334-2732

| Analysis | Expires | Laboratory ID | Comments |
|------------------------|-----------------|-------------------------------------|--------------|
| Sample Name: Barnstead | 10/21/19 0742 | K19J108-01 | |
| Sample ID: D19I033-01 | Water | Sampled: 11 Sep 19 14:30 | |
| K_Magnesium | 09-Mar-20 14:30 | | JMG 10/21/19 |
| K_Arsenic | 09-Mar-20 14:30 | | |
| K_Barium | 09-Mar-20 14:30 | | |
| K_Beryllium | 09-Mar-20 14:30 | | |
| K_Cadmium | 09-Mar-20 14:30 | | |
| K_Calcium | 09-Mar-20 14:30 | | |
| K_Chromium | 09-Mar-20 14:30 | | |
| K_Cobalt | 09-Mar-20 14:30 | | |
| K_Copper | 09-Mar-20 14:30 | | |
| K_Aluminum | 09-Mar-20 14:30 | | |
| K_Lead | 09-Mar-20 14:30 | | |
| K_Zinc | 09-Mar-20 14:30 | | |
| K_Manganese | 09-Mar-20 14:30 | | |
| K_Molybdenum | 09-Mar-20 14:30 | | |
| K_Nickel | 09-Mar-20 14:30 | | |
| K_Potassium | 09-Mar-20 14:30 | | |
| K_Selenium | 09-Mar-20 14:30 | | |
| K_Silver | 09-Mar-20 14:30 | | |
| K_Sodium | 09-Mar-20 14:30 | | |
| K_Strontium | 09-Mar-20 14:30 | | |
| K_Vanadium | 09-Mar-20 14:30 | | |
| K_Iron | 09-Mar-20 14:30 | | |

Containers Supplied:

D_HDPE, HNO3 pH<2 - 500mL (B)

Via Inter-office mail

Released By K. Brahefeld Date 10/29/19 Received By Joh M DOD Date 10/29/19 @ 1600

Released By _____ Date _____ Received By _____ Date _____



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
Project Number: D19I031
Project Manager: Jeff Boudreau

Reported:
11/22/2019 12:52

D19I031-14 (EBLANK)
K19J105-14 (Groundwater, Grab)
Collected: 10/24/2019 8:45 am

| Analyte | Result | Qual | MDL | PQL | Units | Dil | Prepared | Analyzed | Method |
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|
|---------|--------|------|-----|-----|-------|-----|----------|----------|--------|

Laboratory: Kanapaha Laboratory

Metals by EPA 200 Series Methods

| | | | | | | | | | |
|------------|-------|---|-------|-------|------|---|------------|------------|-----------|
| Aluminum | 5.0 | U | 5.0 | 20.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Arsenic | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Barium | 0.3 | I | 0.2 | 0.8 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Beryllium | 0.10 | U | 0.10 | 0.40 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Cadmium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Calcium | 0.10 | U | 0.10 | 0.40 | mg/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Chromium | 1.2 | U | 1.2 | 4.8 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Cobalt | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Copper | 1.5 | U | 1.5 | 6.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Iron | 4.2 | U | 4.2 | 16.8 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Lead | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Magnesium | 0.01 | U | 0.01 | 0.04 | mg/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Manganese | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Molybdenum | 2.5 | U | 2.5 | 10.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Nickel | 1.0 | U | 1.0 | 4.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Potassium | 0.10 | U | 0.10 | 0.40 | mg/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Selenium | 4.0 | U | 4.0 | 16.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Silver | 0.6 | U | 0.6 | 2.4 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Sodium | 0.20 | U | 0.20 | 0.80 | mg/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Strontium | 0.3 | U | 0.3 | 1.2 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Vanadium | 3.0 | U | 3.0 | 12.0 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Zinc | 1.8 | U | 1.8 | 7.2 | ug/L | 1 | 11/05/2019 | 11/18/2019 | EPA 200.7 |
| Mercury | 0.100 | U | 0.100 | 0.400 | ug/L | 1 | 11/13/2019 | 11/13/2019 | EPA 245.1 |

December 6, 2019

Jim Wally
Environmental Engineer
Innovative Waste Consulting Services, LLC
3720 NW 43rd St. Suite 103
Gainesville, Florida 32606

Dear Jim Wally,

Enclosed are the TSS and TDS results for the 4Q19 CCR (October 2019) Groundwater samples. The results relate only to the samples included in these reports. Results reported herein conform to the most current, applicable TNI/NELAC Standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report. All data is subject to a degree of uncertainty. Deerhaven Laboratory uncertainty is based upon LCS quality control statistics.

Sincerely,



Jeffery Boudreau
Laboratory Directory
Deerhaven Generating Station
10001 NW 13th Street
Gainesville, FL 32653
(352) 393-6346
boudreaujp@gru.com

Florida Department of Health Certification E52876

4Q19 GROUNDWATER CCR TSS REPORT

| Sample ID | ID | TSS, Final Result | MDL | PQL | QUAL |
|------------|---------|-------------------|------|------|------|
| | | mg/L | mg/L | mg/L | |
| BLK1 | BLANK1 | 1.0 | 1.0 | 4.0 | U |
| DK90406 | SRM1 | 59.2 | 1.0 | 4.0 | |
| DUP1 | LAB DUP | 1.0 | 1.0 | 4.0 | U |
| D19I031-14 | EBLANK | 1.0 | 1.0 | 4.0 | U,J |
| D19I032-01 | LF2 | 2.9 | 1.0 | 4.0 | I,J |
| D19I032-02 | LF3 | 1.0 | 1.0 | 4.0 | U,J |
| D19I032-03 | LF4 | 12.8 | 1.0 | 4.0 | |
| D19J054-05 | R6T4 | 1.0 | 1.0 | 4.0 | U |
| | | | | | |
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DUP 1: D19J054-05

| | | |
|------------------|-------|-------------|
| SRM TV, mg/L | 75.1 | |
| SRM, mg/L | 59.2 | |
| % Recovery | 78.83 | % Range |
| Low Range, mg/L | 60.9 | 81.0918775 |
| High Range, mg/L | 83.9 | 111.7177097 |

| | |
|-----------|-----|
| Sample | 1.0 |
| Duplicate | 1.0 |
| %RPD | 0 |

4Q19 CCR GROUNDWATER REPORT

4Q19 GROUNDWATER TDS REPORT

| Sample ID | ID | TDS, Final Result | MDL | PQL | QUAL |
|------------|---------|-------------------|------|------|------|
| | | mg/L | mg/L | mg/L | |
| BLK1 | BLANK1 | 10 | 10 | 40 | U |
| DK90406 | SRM1 | 491 | 10 | 40 | |
| DUP1 | LAB DUP | 818 | 10 | 40 | |
| D19I031-03 | R3T7 | 815 | 10 | 40 | |
| D19I031-14 | EBLANK | 10 | 10 | 40 | U |
| D19I032-01 | LF2 | 270 | 10 | 40 | |
| D19I032-02 | LF3 | 349 | 10 | 40 | |
| D19I032-03 | LF4 | 131 | 10 | 40 | |
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DUP 1: D19I031-03

| | | |
|------------------|--------|---------|
| SRM TV, mg/L | 491 | |
| SRM, mg/L | 484 | |
| % Recovery | 101.45 | % Range |
| Low Range, mg/L | 436 | 90.08 |
| High Range, mg/L | 533 | 110.12 |

| | |
|-----------|------|
| Sample | 815 |
| Duplicate | 818 |
| %RPD | 0.37 |

4Q19 CCR GROUNDWATER REPORT

Qualifier Description

- U Compound was analyzed for but not detected
- I The reported value is between the laboratory MDL and the laboratory PQL
- J Estimated value. Insufficient volume used per method.

Attachment B
Sampling Field and Calibration Logs

CCR Assessment January 2019 Field and Analytical Narrative

Field Narrative:

- The pH, conductivity, RDO and depth meter sensors were verified against the NIST reference thermometer/probe (CP 117152 & CP148863), and the depth meter was selected for the purpose of measuring temperature in the field; however, the conductivity temperature sensor was used for the Equipment Blank since depth meter not used.
- CCR Well sampling was done in conjunction with the Quarterly Groundwater Well sampling and began on Monday, January 14, 2019 and was completed on Saturday morning, January 19, 2019 by J. Charles Davis and Shelley Phillips. In addition, we collected 3 GW wells (R6T8, R10T8, and R11T4) as Alternate Source in lieu of putting in additional wells. All wells associated with CCR were sampled on Wednesday (1-16-19) through Friday (1-18-19).
- All the water elevations for all the Quarterly GW wells and CCR wells were taken on the first day, (Monday, January 14th); these are not the depths to water reported on the field logs.
- All wells were found secured with a lock upon arrival and left locked upon departure.
- Weather: Monday (1-14-19) temperatures ranged from 51°F to 54°F, with a NW wind of 8 mph and overcast skies that continued into the afternoon. Tuesday (1-15-19) temperatures ranged from 52°F to 54°F, with overcast skies and a NNW wind of 8 mph that persisted throughout the day. Wednesday (1-16-19) temperatures ranged from 39°F to 61°F, with overcast skies and a NNW wind of 4 mph in the morning. By afternoon, the skies were clear and sunny with calm winds. Thursday (1-17-19) temperatures ranged from 38°F to 63°F, with calm winds and clear skies in the morning. Friday (1-18-19) temperatures ranged from 64°F to 74°F, with a west wind of 4 mph and clear skies in the morning. Afternoon became partly cloudy with a south wind of 7 mph. Saturday morning (1-19-19) temperature was 56°F, with a SSE wind of 3 mph and partly cloudy skies.
- SIS-2: The DO was greater than 20% saturation but met the stabilization criteria (+/- 0.2mg/L or readings within 10%, whichever is greater). The tubing connections were tightened and there was no change in DO. This well historically has DO greater than 20%.
- SIS-3: At the lowest purge possible (95 mL/min), we were unable to stop the draw down. The area around this well was saturated. After the second set of parameters, we realized the ORP sensor was not in the head tank so we restarted collecting the purging parameters.
- LF-1: The lid to the metals (A) container was dropped on the ground but was rinsed with DI water several times prior to capping the bottle.
- LF-2: The byproduct truck and the water truck, used to suppress the byproduct dust, drove by while collecting the physical sample.
- LF-3: The byproduct truck passed by several times (it was up on the pile) while purging the well.
- Equipment Blank: The Equipment Blank was collected at LF4, after that well was sampled. The depth meter sensor was dipped into the Equipment Blank container prior to sampling.
- Instruments: Calibration verifications were performed on all instruments and passed.

Analytical Narrative: Internal Analysis

- TSS and TDS were performed by Deerhaven Laboratory and all results were satisfactory.

CCR Assessment January 2019 Field and Analytical Narrative

Analytical Narrative: External Laboratories

- Kanapaha Laboratory analyzed samples for Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Lead, Molybdenum, and Selenium by Method 200.7.
- PACE Analytical Services analyzed samples for the following metals: Antimony, Lithium, Boron, and Thallium by Method 6020.
- PACE Analytical Services analyzed samples for Chloride, Sulfate, Fluoride and Radium 226 +228 combined.

Contract Laboratories Used:

- PACE Analytical Services, Inc.
- Kanapaha Laboratory

Submitted by: Kimberly Morrison, QAO

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: 1Q19 | Date: 1-16-19 | Well Type: U | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 13.92 | Depth to water(ft) 4.59 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 3.92 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: 0925 |
| Well Vol = (13.92 - 4.59) X 0.6 = 5.6 L | | | 1/4 well vol. = N/A |
| Init Tubing Dpth(ft) 10' | Final Tube Dept(ft): 10' | Purge Start Time: 0928 | Purge Stop time: 0959 |
| | | | Total Volume Purged 6.92 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§ | | |
| 0952 | 5.6 | 5.6 | 220 | 4.85 | 6.47 | 16.6 | 396 | 1.39 | 4.27 | 142 | odorless yellowish floaters |
| 0955 | 6.26 | 6.26 | 220 | 4.85 | 6.47 | 16.6 | 394 | 1.34 | 3.88 | 142 | |
| 0958 | 6.66 | 6.92 | 220 | 4.85 | 6.47 | 16.6 | 394 | 1.29 | 4.28 | 142 | |

◆ 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>Charles Davis, Shelly Phillips</i> | | | Sampler(s) Signatures: <i>[Signatures]</i> | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 1000 | Sampling completed Tube Dpth(ft): 10' | Time: 1033 |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="radio"/> NO | Acid ID# HNO3: DE43001 | H2SO4: NA | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|----------|-----------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19A013-01A | PE | 500 | HNO3 | 1.0 mL | 1.3 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| D19A013-01B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li |
| D19A013-01C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19A013-01D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| D19A013-01E | PE | 4-2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

Well found locked on arrival Well left locked on departure
 Temperature: **47°F** Winds: **N Sump** Cloud Cover: **Overcast** Precip: **0**
 Remarks: **only collected 3000 ml for physical**

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: <u>Jan 2019</u> | Date: <u>1-16-19</u> | | | Well Type: D | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.22 | Depth to water(ft) <u>5.90</u> | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 4.22 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: <u>1557</u> |
| Well Vol = (14.22 - 5.90) X 0.6 = 5.0 L | | | 1/4 well vol. = <u>N/A</u> |
| Init Tubing Dpth(ft) <u>10'</u> | Final Tube Dept(ft): <u>10'</u> | Purge Start Time: <u>1600</u> | Purge Stop time: <u>1626</u> |
| | | | Total Volume Purged <u>6.44L</u> |

| 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§ | | |
| <u>1619</u> | <u>5.0</u> | <u>5.0</u> | <u>240</u> | <u>5.13</u> | <u>7.09</u> | <u>17.6</u> | <u>681</u> | <u>2.34</u> | <u>14.5</u> | <u>109</u> | No Odor brownish color Cloudy >203 D >203 E >203 F |
| <u>1622</u> | <u>0.72</u> | <u>5.72</u> | <u>240</u> | <u>5.13</u> | <u>7.09</u> | <u>17.6</u> | <u>681</u> | <u>2.29</u> | <u>12.8</u> | <u>108</u> | |
| <u>1625</u> | <u>0.72</u> | <u>6.44</u> | <u>240</u> | <u>5.13</u> | <u>7.09</u> | <u>17.6</u> | <u>681</u> | <u>2.29</u> | <u>7.5</u> | <u>105</u> | |
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◆ 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>S. Phillips, J.C. Davis</u> | | | Sampler(s) Signatures: <u>[Signatures]</u> | | | |
|---------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------|-----------------------------|------------------------------------------------------|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>10'</u> | Time: <u>1627</u> | Sampling completed Tube Dpth(ft): <u>10'</u> | Time: <u>1650</u> | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="radio"/> NO <input type="radio"/> | Acid ID# | HNO3: <u>DE83001</u> | H2SO4: <u>N/A</u> | |
| Sample Container Specification | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | | final pH |
| <u>DA19013-02A</u> | <u>PE</u> | <u>500</u> | <u>HNO3</u> | <u>1.0 mL</u> | <u>1.3</u> | <u>Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S</u> |
| <u>DA19013-02B</u> | <u>PE</u> | <u>250</u> | <u>HNO3</u> | <u>0.5 mL</u> | <u>1.3</u> | <u>Metals: Sb, Ti, B, Li</u> |
| <u>DA19013-02C</u> | <u>PE</u> | <u>250</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Anions: F, Cl, SO4</u> |
| <u>DA19013-02D</u> | <u>PE</u> | <u>2000</u> | <u>HNO3</u> | <u>4 mL</u> | <u>1.3</u> | <u>Radium 226+228 Combined</u> |
| <u>DA19013-02E</u> | <u>PE</u> | <u>2000</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Solids: TSS, TDS</u> |

Well found locked on arrival Well left locked on departure
 Temperature: 61°F Winds: calm Cloud Cover: Clear & Sunny Precip: 0
 Remarks:

DGS Groundwater Sampling Log



| | | | | | |
|--------------------------|----------------------|---------------------------------|-----------------------------------|--------------------------|------------------------------|
| WELL ID: SIS-3 | Location: | Latitude: 29°45'51.8472" | Longitude: -82°23'35.5632" | MSL @ TOC: 183.11 | Date In Service: 2017 |
| Quarter: Jan 2019 | Date: 1-16-19 | Well Type: D | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|------------------------------------|---------------------------------|----------------------------------------|
| Diameter(in): 2 | Total well depth(ft): 13.38 | Depth to water(ft): 3.70 | Well capacity(L/ft): 0.6 |
| Distance from TOC to top of screen: 3.38 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: 1251 |
| Well Vol = (13.38 - 3.70) X 0.6 = 5.8 L | | | 1/4 well vol. = NA |
| Init Tubing Dpth(ft): 10' | Final Tube Dept(ft): 10' | Purge Start Time: 12:54 | Purge Stop time: 1405 |
| | | | Total Volume Purged: 7.0 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§ | | |
| 1352 | 5.8 | 5.8 | 100 | 5.07 | 6.50 | 16.5 | 510 | 0.55 | 3.72 | 65.0 | Sulfur odor particles float |
| 1355 | 0.3 | 6.1 | 100 | 5.20 | 6.50 | 17.0 | 511 | 0.53 | 5.49 | 66.0 | |
| 1358 | 0.3 | 6.4 | 95 | 5.22 | 6.49 | 17.1 | 513 | 0.53 | 4.03 | 56.2 | |
| 1401 | 0.3 | 6.7 | 95 | 5.28 | 6.48 | 17.1 | 516 | 0.48 | 2.79 | 44.1 | |
| 1403 | 0.3 | 7.0 | 95 | 5.35 | 6.48 | 17.2 | 516 | 0.45 | 2.55 | 33.3 | |
| 1404 | | | | | | | | | | | |

SF-1019

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): S. Phillips, J.C. Davis | | | Sampler(s) Signatures: <i>[Signatures]</i> | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 1406 | Sampling completed Tube Dpth(ft): 10' | Time: 1459 |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# HNO3: DES3001 | H2SO4: NA | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|----------|-----------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19A013-03A | PE | 500 | HNO3 | 1.0 mL | 1.3 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| D19A013-03B | PE | 250 | HNO3 | 0.5 mL | 1.3 | Metals: Sb, Ti, B, Li |
| D19A013-03C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19A013-03D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| D19A013-03E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

Well found locked on arrival Well left locked on departure
 Temperature: **57°F** Winds: **NW @ 10mph** Cloud Cover: **Clear/Sunny** Precip: **0**
 Remarks: **Unable to stop drawdown stand purge only at 1358 due to ORP not in head tank parameters**

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: 1Q19 Jan 2019 | Date: 1-16-19 | Well Type: D | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 13.7 | Depth to water(ft) 5.21 | Well capacity(L/ft) 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: 1504 |
| Well Vol = (13.7 - 5.21) X 0.6 = 5.1 L | | | 1/4 well vol. = N/A |
| Init Tubing Dpth(ft) 10' | Final Tube Dept(ft): 10' | Purge Start Time: 1507 | Purge Stop time: 1531 |
| | | Total Volume Purged 6.9 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§ | | |
| 1525 | 5.1 | 5.1 | 300 | 5.46 | 6.62 | 18.3 | 568 | 0.33 | 6.35 | 123 | Brownish color - colorless particles floating |
| 1528 | 0.9 | 6.0 | 300 | 5.46 | 6.62 | 18.3 | 565 | 0.31 | 6.44 | 120 | |
| 1531 | 0.9 | 6.9 | 300 | 5.46 | 6.62 | 18.3 | 565 | 0.31 | 5.31 | 117 | |
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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): JC Davis, Shelby Phillips | | | | Sampler(s) Signatures: <i>JC Davis, S Phillips</i> | | | |
|-----------------------------------------------------|----------------------------|--------------------------------------------------------|-------------------------------|----------------------------------------------------|-------------------|------------------------------------------------------|--|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 1533 | Sampling completed Tube Dpth(ft): 10' | Time: 1553 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="radio"/> | Acid ID# HNO3: DE83001 | H2SO4: N/A | | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| D19A013-04A | PE | 500 | HNO3 | 1.0 mL | 1.6 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S | |
| D19A013-04B | PE | 250 | HNO3 | 0.5 mL | 1.3 | Metals: Sb, Ti, B, Li | |
| D19A013-04C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| D19A013-04D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined | |
| D19A013-04E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: 60°F | Winds: N 0 mph |
| Cloud Cover: clear | Precip: 0 |
| Remarks: | |

DGS Groundwater Sampling Log



| | | | | | |
|-------------------------------|-------------------------------------------------|---------------------------------|-----------------------------------|--------------------------|------------------------------|
| WELL ID: LF-1 | Location: 29°45'59.0544" -82°23'51.8244" | Latitude: 29°45'59.0544" | Longitude: -82°23'51.8244" | MSL @ TOC: 185.76 | Date In Service: 2017 |
| Quarter: 1Q19 Jan 2019 | Date: 1-16-2019 | Well Type: U | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.88 | Depth to water(ft) 5.42 | 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: 0723 |
| Well Vol = (14.88 - 5.42) X 0.6 = 5.7 L | | | 1/4 well vol. = N/A |
| Init Tubing Dpth(ft) 10' | Final Tube Dept(ft): 10' | Purge Start Time: 0732 | Purge Stop time: 0802 |
| | | | Total Volume Purged 9.7 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§ | | |
| 0749 | 5.7 | 5.7 | 330 | 5.53 | 5.92 | 19.0 | 308 | 2.07 | 1.37 | 256 | Clear Odorless Colorless > 20% D > 20% D < 20% E |
| 0752 | 1 | 6.7 | 330 | 5.53 | 5.90 | 19.1 | 303 | 2.88 | 1.04 | 253 | |
| 0755 | 1 | 7.7 | 330 | 5.53 | 5.88 | 19.1 | 295 | 1.55 | 1.04 | 248 | |
| 0758 | 1 | 8.7 | 330 | 5.53 | 5.85 | 19.2 | 288 | 1.59 | 0.75 | 244 | |
| 0801 | 1 | 9.7 | 330 | 5.53 | 5.85 | 19.2 | 288 | 1.31 | 0.63 | 241 | |

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): Johannes Davis, Shelby Hill, Jr | | | | Sampler(s) Signatures: <i>[Signatures]</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 0803 | Sampling completed Tube Dpth(ft): 10' | Time: 0819 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="radio"/> | Acid ID# HNO3: DEE3001 | H2SO4: N/A | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|----------|-----------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19A013-05A | PE | 500 | HNO3 | 1.0 mL | 1.3 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| D19A013-05B | PE | 250 | HNO3 | 0.5 mL | 1.3 | Metals: Sb, Ti, B, Li |
| D19A013-05C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19A013-05D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| D19A013-05E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

Well found locked on arrival Well left locked on departure
 Temperature: **39°F** Winds: **NW 4 mph** Cloud Cover: **partly cloudy** Precip: **0**
 Remarks: **dropped metal (bottle A) lid on ground, rinsed it w/ the DI water several times and then placed in bottle.**

DGS Groundwater Sampling Log



| | | | | | |
|--------------------------------|----------------------|---------------------------------|-----------------------------------|---------------------|-----------------|
| WELL ID: LF-2 | Location: | Latitude: 29°45'50.5296" | Longitude: -82°23'47.7492" | MSL @ TOC | Date In Service |
| Quarter: <u>1Q19, Jan 2019</u> | Date: <u>1-17-19</u> | | | 183.35 | 2017 |
| | | | | Well Type: D | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.35 | Depth to water(ft) 5.35 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 4.35 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: <u>0734</u> |
| Well Vol = (14.35 - 5.35) X 0.6 = 5.4 L | | | 1/4 well vol. = <i>N/A</i> |
| Init Tubing Dpth(ft) 10' | Final Tube Dept(ft): 10' | Purge Start Time: <u>0738</u> | Purge Stop time: <u>0838</u> |
| | | Total Volume Purged 6.0 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§ | | |
| <u>0831</u> | <u>5.4</u> | <u>5.4</u> | <u>100</u> | <u>5.80</u> | <u>6.01</u> | <u>18.4</u> | <u>880</u> | <u>0.39</u> | <u>2.67</u> | <u>44</u> | <i>odorless particulate. Abrasion yellowish color</i> |
| <u>0834</u> | <u>5.70.3</u> | <u>5.7</u> | <u>100</u> | <u>5.80</u> | <u>6.00</u> | <u>18.4</u> | <u>879</u> | <u>0.34</u> | <u>8.43</u> | <u>42</u> | |
| <u>0837</u> | <u>0.3</u> | <u>6.0</u> | <u>100</u> | <u>5.80</u> | <u>5.99</u> | <u>18.5</u> | <u>880</u> | <u>0.35</u> | <u>8.02</u> | <u>41</u> | |

◆ 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>JC Davis, Shelly Phillips</u> | | | | Sampler(s) Signatures: <u>[Signatures]</u> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>10'</u> | Time: <u>0839</u> | Sampling completed Tube Dpth(ft): <u>10'</u> | Time: <u>0930</u> | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# HNO3: DE83001 | H2SO4: N/A | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|------------|-----------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| <u>D19A-013-06A</u> | PE | 500 | HNO3 | 1.0 mL | <u>1.3</u> | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| <u>D19A-013-06B</u> | PE | 250 | HNO3 | 0.5 mL | <u>1.3</u> | Metals: Sb, Ti, B, Li |
| <u>D19A-013-06C</u> | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| <u>D19A-013-06D</u> | PE | 2000 | HNO3 | 4 mL | <u>1.3</u> | Radium 226+228 Combined |
| <u>D19A-013-06E</u> | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

Well found locked on arrival Well left locked on departure
 Temperature: 38°F Winds: Calm Cloud Cover: 0 Precip: 0
 Remarks: water truck drove by a few times, byproduct truck drove by during physical sample.

DGS Groundwater Sampling Log



WELL ID: **LF-3** **Location:** Latitude: **29°45'50.6376"** Longitude: **-82°23'52.1592"** **MSL @ TOC Date In Service:** **185.05 2017**
Quarter: 1Q19 Jan 2019 **Date:** 1-17-19 **Well Type:** **D**

Purging Data

| Diameter(in) | 2 | Total well depth(ft) | 14.43 | Depth to water(ft) | 5.75 | Well capacity(L/ft) | 0.6 | | | | |
|-------------------------------------------------------------------|-------------------|--------------------------|-------------------|---------------------|-------------|----------------------------------------|---------------|----------------|-----------------|------------|----------------------------------------|
| Distance from TOC to top of screen | 4.43 | 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: <u>0934</u> | | | | | |
| Well Vol = (14.43 - 5.75) X ^{8.68} 0.6 = 5.2 L | | | | | | 1/4 well vol. = <u>1.4</u> | | | | | |
| Init Tubing Dpth(ft) | <u>10'</u> | Final Tube Dept(ft): | <u>10'</u> | Purge Start Time: | <u>0938</u> | Purge Stop time: | <u>1021</u> | | | | |
| | | | | | | Total Volume Purged 6.04L | | | | | |
| 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§ | | |
| <u>1015</u> | <u>5.2</u> | <u>5.2</u> | <u>140</u> | <u>5.97</u> | <u>6.57</u> | <u>16.9</u> | <u>1199</u> | <u>0.48</u> | <u>0.83</u> | <u>112</u> | <u>Odor test clear yellowish color</u> |
| <u>1018</u> | <u>0.42</u> | <u>5.62</u> | <u>140</u> | <u>5.97</u> | <u>6.56</u> | <u>17.0</u> | <u>1199</u> | <u>0.47</u> | <u>1.05</u> | <u>104</u> | |
| <u>1021</u> | <u>0.42</u> | <u>6.04</u> | <u>140</u> | <u>5.97</u> | <u>6.56</u> | <u>17.0</u> | <u>1199</u> | <u>0.50</u> | <u>0.87</u> | <u>91</u> | |

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

◆ FDEP SOP Section 2212.3

| Sampled By(Print): <u>J.C. Davis, Shelby Phillips</u> | | | | Sampler(s) Signatures: <u>J.C. Davis, S. Phillips</u> | | | |
|-------------------------------------------------------|-----------|-----------------|------------------------|-------------------------------------------------------|---------------------------------------------|------------------------------------------------------|----------------|
| Sampling Method: | PP | Tube Material: | PP/S | Sampling Started Tube Dpth(ft): | <u>10'</u> | Time: | <u>1022</u> |
| | | | | Sampling completed Tube Dpth(ft): | <u>10'</u> | Time: | <u>1102</u> |
| Field Decon: | NO | Field Filtered: | NO | Duplicate: | YES <input checked="" type="radio"/> | Acid ID# HNO3: | <u>DE83001</u> |
| | | | | H2SO4: | | <u>NA</u> | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| <u>D19A013-07A</u> | PE | 500 | HNO3 | 1.0 mL | <u>1.6</u> | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S | |
| <u>D19A013-07B</u> | PE | 250 | HNO3 | 0.5 mL | <u>1.3</u> | Metals: Sb, Ti, B, Li | |
| <u>D19A013-07C</u> | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| <u>D19A013-07D</u> | PE | 2000 | HNO3 | 4 mL | <u>1.6</u> | Radium 226+228 Combined | |
| <u>D19A013-07E</u> | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

Well found locked on arrival Well left locked on departure
 Temperature: 60°F Winds: ENE 6mph Cloud Cover: 0 Precip: 0
 Remarks: Byproduct truck passing frequently

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | |
|--------------------------|----------------------|---------------------------------|-----------------------------------|-----------------------------------------------|
| WELL ID: LF-4 | Location: | Latitude: 29°45'50.5008" | Longitude: -82°23'58.6248" | MSL @ TOC Date In Service: 186.01 2017 |
| Quarter: Jan 2019 | Date: 1-17-19 | Well Type: D | | |

Purging Data

| | | | |
|--------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------|----------------------------------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 13.95 | Depth to water(ft) 5.66 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 3.95 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: 1108 |
| Well Vol = (13.95 - 5.66) X ^{0.79} 0.6 = 5.0 L 1/4 well vol. = NA | | | |
| Init Tubing Dpth(ft) 10' | Final Tube Dept(ft): 10' | Purge Start Time: 11:10 | Purge Stop time: 11:40 Total Volume Purged 6.02L |

| 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§ | | |
| 1139 | 5.0 | 5.0 | 170 | 5.88 | 6.48 | 17.2 | 1066 | 1.48 | 2.19 | 146 | No Odor Clear yellow color |
| 1142 | 0.51 | 5.51 | 170 | 5.88 | 6.47 | 17.2 | 1071 | 1.41 | 2.14 | 145 | |
| 1145 | 0.51 | 6.02 | 170 | 5.88 | 6.47 | 17.2 | 1073 | 1.39 | 1.78 | 145 | |
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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): J.C. Davis, S. Phillips | | | | Sampler(s) Signatures: <i>J.C. Davis, S. Phillips</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 11:47 | Sampling completed Tube Dpth(ft): 10' | Time: 12:19 | Acid ID# HNO3: DE83001 H2SO4: NA | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES | <input checked="" type="checkbox"/> NO | Intended Analysis or method | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|----------|-----------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19A013-08A | PE | 500 | HNO3 | 1.0 mL | 1.3 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| D19A013-08B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li |
| D19A013-08C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19A013-08D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| D19A013-08E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

Well found locked on arrival Well left locked on departure
 Temperature: **61°F** Winds: **ENE @ 6 mph** Cloud Cover: **2-3** Precip: **0**
 Remarks:

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | | |
|----------------------------|----------------------|-------------------------------|---------------------------------|--------------------------|------------------------------|
| WELL ID: R4T5 (CCR) | Location: | Latitude: 29°45'52.14" | Longitude: -82°23'33.18" | MSL @ TOC: 187.46 | Date In Service: 7-93 |
| Quarter: Jan 2019 | Date: 1-16-19 | Well Type: D | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|------------------------------------|----------------------------------------|-----------------------------------|
| Diameter(in): 2 | Total well depth(ft): 15.08 | Depth to water(ft): 10.58 | Well capacity(L/ft): 0.6 |
| Distance from TOC to top of screen: 5.08 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: 1038 | |
| Well Vol = (15.08 - 10.58) X 0.6 = 2.7 L | | 1/4 well vol. = 0.7 | |
| Init Tubing Dpth(ft): 10.66 | Final Tube Dept(ft): 10.93 | Purge Start Time: 10:46 | Purge Stop time: 11:19 |
| | | | Total Volume Purged: 4.1 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 |
|----------------------------------------------------------------------------------------------|-------------------|--------------------------|-------------------|---------------------|---------|-----------|-------------|----------------|-----------------|----------|------------------------|
| | | | | | ± 0.2§ | ± 0.2§ | ± 5%§ | 20% sat§ | 20 max§ | | |
| <p style="font-size: 2em; font-style: italic;">See 1019 AW Sampling log for rest of data</p> | | | | | | | | | | | |

◆ 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): J.C. Davis, S. Phillip | | | | Sampler(s) Signatures: <i>[Signatures]</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10.93 | Time: 1120 | Sampling completed Tube Dpth(ft): 10.93 | Time: 1217 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES NO | Acid ID# HNO3: D983001 | H2SO4: NA | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|---------------------------------|---------------|-----------------|----------------------------|-------------------|---------------------------------|----------------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| | PE | 500 | HNO3 | 1.0 mL | | Metals: As, Ba, Be, Ga, Gd, Cr, Co, Mo, Pb, S |
| D19A03-09B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li |
| | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19A03-09D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

| | |
|------------------------------------------------------------------|--------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input type="checkbox"/> Well left locked on departure |
| Temperature: _____ | Winds: _____ |
| Cloud Cover: _____ | Precip: _____ |
| Remarks: see 1019 AW field log for this well | |

DGS Groundwater Sampling Log



| | | | | |
|----------------------|----------------------|-------------------------------|---------------------------------|-----------------------------------------------|
| WELL ID: R4T5 | Location: | Latitude: 29°45'52.14" | Longitude: -82°23'33.18" | MSL @ TOC Date In Service: 187.46 7-93 |
| Quarter: 1Q19 | Date: 1-16-19 | Well Type: I | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------------|----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 15.08 | Depth to water(ft) 10.58 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 5.08 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: 1038 | |
| Well Vol = (15.08 - 10.58) X 0.6 = 2.7 L | | 1/4 well vol. = 0.7 | |
| Init Tubing Dpth(ft) 10.66 | Final Tube Dept(ft): 10.43 | Purge Start Time: 1046 | Purge Stop time: 1119 |
| | | | Total Volume Purged 4.1 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 |
|------|-------------------|--------------------------|-------------------|---------------------|---------|-----------|-------------|----------------|-----------------|----------|------------------------|
| | | | | | ± 0.2§ | ± 0.2§ | ± 5%§ | 20% sat§ | 20 max§ | | |
| 1105 | 2.7 | 2.7 | 115 | 10.85 | 6.14 | 22.1 | 818 | 0.33 | 1.37 | -20.7 | sulfur odor |
| 1111 | 0.7 | 3.4 | 115 | 10.85 | 6.14 | 22.2 | 822 | 0.36 | 1.03 | -23.0 | clear |
| 1117 | 0.7 | 4.1 | 115 | 10.85 | 6.14 | 22.3 | 826 | 0.33 | 0.37 | -23.7 | Brownish yellow |
| | | | | | | | | | | | |
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◆ 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 Davis, Shelly Phillips | | | | Sampler(s) Signatures: <i>JC Davis, S. Phillips</i> | | | |
|-----------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------|--------------------------------------|---------------------------------|--|
| Sampling Method: PP | Tube Material: PP/S | Tube Dpth(ft): 10.66 | Sampling Started Time: 1120 | Tube Dpth(ft): 10.93 | Sampling completed Time: 1217 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input type="radio"/> NO <input checked="" type="radio"/> | Acid ID# HNO3: D283001 | H2SO4: DL62502 | | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| D19A012-04A | PE | 2000 | Chill <6 deg | none | n/a | Physical Analysis | |
| D19A012-04B | PE | 250 | Chill 6 deg C | none | n/a | Anions | |
| D19A012-04C | PE | 250 | Chill + H2SO | 0.5 mL | 1.3 | Demand-NPDOC and NO3+NO2 | |
| D19A012-04D | PE | 1000 | HNO3 | 2 mL | 1.3 | Radiological-GA | |
| D19A012-04E | PE | 500 | HNO3 | 1 mL | 1.3 | Metals | |

Tubing depth is **0.8** ft below depth to water for every instance. Well found locked on arrival Well left locked on departure
 Temperature: **51** Winds: **WNW 5 mph** Cloud Cover: **overcast** Precip: **0**
 Remarks:

DGS Groundwater Sampling Log



| | | | | | |
|----------------------------|------------------------|-------------------------------|---------------------------------|---------------------|-----------------|
| WELL ID: R6T4 (CCR) | Location: | Latitude: 29°46'00.90" | Longitude: -82°23'40.20" | MSL @ TOC | Date In Service |
| Quarter: <u>Jun 2019</u> | Date: <u>1-16-2019</u> | 183.6 | 7-93 | Well Type: U | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|-------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.13 | Depth to water(ft) 3.7 | 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: <u>0829</u> |
| Well Vol = (14.13 - 3.7) X 0.6 = 6.3 L | | | 1/4 well vol. = 1.6 |
| Init Tubing Dpth(ft) <u>4.5</u> | Final Tube Dept(ft): <u>4.7</u> | Purge Start Time: <u>0834</u> | Purge Stop time: <u>0904</u> |
| | | | Total Volume Purged, <u>2.7</u> 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§ | | |
| <p style="font-size: 2em; transform: rotate(-15deg); opacity: 0.5;">see 1Q19 GW field log for this well for data</p> | | | | | | | | | | | |
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Decon Depth Mtr - rinse with analyte free water
 §Purge method FDEP-SOP 2212.3.1

Sampling Data

◆ FDEP SOP Section 2212.3

| | |
|-----------------------------------------------------------|------------------------------------------------|
| Sampled By(Print): <u>J.C. Davis, S. Phillips</u> | Sampler(s) Signatures: <u>[Signatures]</u> |
| Sampling Method: PP | Tube Material: PP/S |
| Sampling Started Tube Dpth(ft): <u>4.7</u> | Time: <u>0905</u> |
| Sampling completed Tube Dpth(ft): <u>4.7</u> | Time: <u>0919</u> |
| Field Decon: NO | Field Filtered: NO |
| Duplicate: YES <input checked="" type="checkbox"/> | Acid ID# HNO3: <u>DE83001</u> H2SO4: <u>NA</u> |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|---------------|-----------------|----------------------------|-------------------|----------------|----------------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| | PE | 500 | HNO3 | 1.0 mL | | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| <u>D19A013-10B</u> | <u>PE</u> | <u>250</u> | <u>HNO3</u> | <u>0.5 mL</u> | <u>1.3</u> | <u>Metals: Sb, Ti, B, Li</u> |
| | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| <u>D19A013-10D</u> | <u>PE</u> | <u>2000</u> | <u>HNO3</u> | <u>4 mL</u> | <u>1.3</u> | <u>Radium 226+228 Combined</u> |
| | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

Well found locked on arrival Well left locked on departure
 Temperature: _____ Winds: _____ Cloud Cover: _____ Precip: _____
 Remarks: see 1Q19 R6T4 field log for data

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | |
|----------------------|------------------------|-------------------------------|---------------------------------|----------------------------------------------|
| WELL ID: R6T4 | Location: | Latitude: 29°46'00.90" | Longitude: -82°23'40.20" | MSL @ TOC Date In Service: 183.6 7-93 |
| Quarter: 1Q19 | Date: 1-16-2019 | Well Type: I | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.13 | Depth to water(ft) 3.70 | 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: 0829 |
| Well Vol = (14.13 - 3.7) X ^(0.6) 0.6 = 6.3 L | | | 1/4 well vol. = 1.6 |
| Init Tubing Dpth(ft) 4.5 | Final Tube Dept(ft): 4.7 | Purge Start Time: 0834 | Purge Stop time: 0904 |
| | | | Total Volume Purged 12.7 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§ | | |
| 0849 | 6.3 | 6.3 | 500 | 3.9 | 7.65 | 18.4 | 369 | 0.30 | 0.78 | 173 | Sulfur odor clear Slight yellow color |
| 0852 | 1.6 | 7.9 | 500 | 3.9 | 7.00 | 18.6 | 364 | 0.24 | 0.46 | 150 | |
| 0856 | 1.6 | 9.5 | 500 | 3.9 | 6.93 | 18.8 | 361 | 0.21 | 0.53 | 117 | |
| 0859 | 1.6 | 11.1 | 500 | 3.9 | 6.84 | 18.9 | 355 | 0.19 | 0.34 | 68.8 | |
| 0902 | 1.6 | 12.7 | 500 | 3.9 | 6.76 | 18.9 | 351 | 0.17 | 0.32 | 40.5 | |
| | | | | | | | 351 | | | | |

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>Charles Davis, Shelly Phillips</i> | | | | Sampler(s) Signatures: <i>Charles Davis, Shelly Phillips</i> | | | |
|----------------------------------------------------------|----------|----------------------------|---------------------|--------------------------------------------------------------|----------|----------------------------------------------------------------|--|
| Sampling Method: PP | | Tube Material: PP/S | | Sampling Started Tube Dpth(ft): 4.7 Time: 0905 | | Sampling completed Tube Dpth(ft): 4.7 Time: 0919 | |
| Field Decon: NO | | Field Filtered: NO | | Duplicate: YES (NO) | | Acid ID# HNO3: D283061 H2SO4: DL62802 | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| D19A012-06A | PE | 2000 | Chill <6 deg | none | n/a | Physical Analysis | |
| D19A012-06B | PE | 250 | Chill 6 deg C | none | n/a | Anions | |
| D19A012-06C | PE | 250 | Chill + H2SO | 0.5 mL | 1.3 | Demand-NPDOC and NO3+NO2 | |
| D19A012-06D | PE | 1000 | HNO3 | 2 mL | 1.3 | Radiological-GA | |
| D19A012-06E | PE | 500 | HNO3 | 1 mL | 1.3 | Metals | |

Tubing depth is 0.8 ft below depth to water for every instance. Well found locked on arrival Well left locked on departure
 Temperature: 43°F Winds: NWS mph Cloud Cover: partly cloudy Precip: 0
 Remarks:

DGS Groundwater Sampling Log



| | | | | | |
|----------------------------|----------------------|-------------------------------|---------------------------------|-----------|-----------------|
| WELL ID: R6T8 (CCR) | Location: | Latitude: 29°45'39.32" | Longitude: -82°23'42.81" | MSL @ TOC | Date In Service |
| Quarter: <u>Jan 2019</u> | Date: <u>1-18-19</u> | Well Type: I | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------------|----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.13 | Depth to water(ft) 2.47 | 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: <u>0755</u> | |
| Well Vol = (14.13 - 2.47) X 0.6 = 7.0 L | | 1/4 well vol. = 1.75 | |
| Init Tubing Dpth(ft) <u>8.27</u> | Final Tube Dept(ft): <u>3.98</u> | Purge Start Time: <u>0757</u> | Purge Stop time: <u>1015</u> |
| | | | Total Volume Purged 17% 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§ | | |
| <p style="font-size: 2em; opacity: 0.5;">See 1Q19 GW R6T8 field log for data</p> | | | | | | | | | | | |
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◆ 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>JC Davis, S. Phillips</u> | | | | Sampler(s) Signatures: <u>[Signatures]</u> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>3.98</u> | Time: <u>1016</u> | Sampling completed Tube Dpth(ft): <u>3.98</u> | Time: <u>1110</u> | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="radio"/> | Acid ID# HNO3: DES30E | H2SO4: NA | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|---------------|-----------------|----------------------------|-------------------|----------------|----------------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| | PE | 500 | HNO3 | 1.0 mL | | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| <u>D19403-11B</u> | <u>PE</u> | <u>250</u> | <u>HNO3</u> | <u>0.5 mL</u> | <u>1.6</u> | <u>Metals: Sb, Ti, B, Li</u> |
| | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F-, Cl-, SO4 |
| <u>D19403-11D</u> | <u>PE</u> | <u>2000</u> | <u>HNO3</u> | <u>4 mL</u> | <u>1.3</u> | <u>Radium 226+228 Combined</u> |
| | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

Well found locked on arrival Well left locked on departure
 Temperature: _____ Winds: _____ Cloud Cover: _____ Precip: _____
 Remarks: see 1Q19 GW sampling R6T8 field log

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | |
|----------------------|----------------------|------------------------|--------------------------|----------------------------------------|
| WELL ID: R6T8 | Location: | Latitude: 29°45'39.32" | Longitude: -82°23'42.81" | MSL @ TOC Date In Service: 177.49 8-94 |
| Quarter: <u>1Q19</u> | Date: <u>1-18-19</u> | Well Type: <u>I</u> | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------------|-----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.13 | Depth to water(ft) 2.47 | 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: <u>0755</u> | |
| Well Vol = (14.13 - 2.47) X 0.6 = 7.0 L | | 1/4 well vol. = <u>1.75</u> | |
| Init Tubing Dpth(ft): <u>2.18</u> | Final Tube Dept(ft): <u>3.98</u> | Purge Start Time: <u>0757</u> | Purge Stop time: <u>1015</u> |
| | | | Total Volume Purged <u>17.8 L</u> |

| 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§ | | |
| <u>0751</u> | <u>2.0</u> | <u>2.0</u> | <u>140</u> | <u>3.16</u> | <u>6.77</u> | <u>15.6</u> | <u>587</u> | <u>1.47</u> | <u>0.66</u> | <u>170</u> | <u>Odorless colorless clear</u> |
| <u>0903</u> | <u>6.8</u> | <u>8.8</u> | <u>140</u> | <u>3.16</u> | <u>6.66</u> | <u>15.5</u> | <u>518</u> | <u>1.42</u> | <u>0.73</u> | <u>164</u> | |
| <u>0718</u> | <u>6.8</u> | <u>10.6</u> | <u>140</u> | <u>3.16</u> | <u>6.62</u> | <u>15.5</u> | <u>483</u> | <u>1.35</u> | <u>0.76</u> | <u>146</u> | |
| <u>0932</u> | <u>6.8</u> | <u>12.4</u> | <u>140</u> | <u>3.16</u> | <u>6.53</u> | <u>15.4</u> | <u>422</u> | <u>1.33</u> | <u>0.86</u> | <u>139</u> | |
| <u>0945</u> | <u>6.8</u> | <u>14.2</u> | <u>140</u> | <u>3.18</u> | <u>6.50</u> | <u>15.5</u> | <u>410</u> | <u>1.30</u> | <u>0.73</u> | <u>135</u> | |
| <u>0959</u> | <u>6.8</u> | <u>16.0</u> | <u>140</u> | <u>3.18</u> | <u>6.48</u> | <u>15.4</u> | <u>397</u> | <u>1.27</u> | <u>0.62</u> | <u>135</u> | |
| <u>1014</u> | <u>6.8</u> | <u>17.8</u> | <u>140</u> | <u>3.18</u> | <u>6.44</u> | <u>15.5</u> | <u>393</u> | <u>1.21</u> | <u>0.55</u> | <u>133</u> | |

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): <u>JC Davis, Shelby Phillips</u> | | | | Sampler(s) Signatures: <u>JC Davis, S. Phillips</u> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>3.98</u> | Time: <u>1016</u> | Sampling completed Tube Dpth(ft): <u>3.98</u> | Time: <u>1110</u> | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="checkbox"/> | Acid ID# HNO3: DE93001 | H2SO4: DL62802 | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|-----------|-------------|------------------------|---------------|------------|---------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| <u>D19A012-074</u> | <u>PE</u> | <u>2000</u> | <u>Chill <6 deg</u> | <u>none</u> | <u>n/a</u> | <u>Physical Analysis</u> |
| <u>D19A012-076</u> | <u>PE</u> | <u>250</u> | <u>Chill 6 deg C</u> | <u>none</u> | <u>n/a</u> | <u>Anions</u> |
| <u>D19A012-070</u> | <u>PE</u> | <u>250</u> | <u>Chill + H2SO</u> | <u>0.5 mL</u> | <u>1.6</u> | <u>Demand-NPDOC and NO3+NO2</u> |
| <u>D19A012-010</u> | <u>PE</u> | <u>1000</u> | <u>HNO3</u> | <u>2 mL</u> | <u>1.3</u> | <u>Radiological-GA</u> |
| <u>D19A012-076</u> | <u>PE</u> | <u>500</u> | <u>HNO3</u> | <u>1 mL</u> | <u>1.6</u> | <u>Metals</u> |

Tubing depth is 0.5 ft below depth to water for every instance. Well found locked on arrival Well left locked on departure
 Temperature: 52°F Winds: W 4 mph Cloud Cover: 0 Precip: 0
 Remarks: A great landed in 500 mL metals sample, poured. Ailed bottle to top then tipped to remove bug. Changed battery on depth meter during purge - low battery indication.

DGS Groundwater Sampling Log



| | | | | | |
|-----------------------------|----------------------|-------------------------------|---------------------------------|--------------------------|------------------------------|
| WELL ID: R10T8 (CCR) | Location: | Latitude: 29°45'35.72" | Longitude: -82°24'06.07" | MSL @ TOC: 181.42 | Date In Service: 4-84 |
| Quarter: Jan 2019 | Date: 1-18-19 | Well Type: C | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|------------------------------------|---------------------------------|----------------------------------------|
| Diameter(in): 2 | Total well depth(ft): 14.53 | Depth to water(ft): 5.80 | Well capacity(L/ft): 0.6 |
| Distance from TOC to top of screen: 9.53 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: 1331 |
| Well Vol = (14.53 - 5.80) X 0.6 = 5.2 L | | | 1/4 well vol. = 1.3 |
| Init Tubing Dpth(ft): 0.4 | Final Tube Dept(ft): 6.87 | Purge Start Time: 133 | Purge Stop time: 1356 |
| | | | Total Volume Purged 78 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§ | | |
| <p style="font-size: 2em; opacity: 0.5;">See CW Sampling sheet 1Q19 for Data</p> | | | | | | | | | | | |
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◆ 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): S. Phillips, J.C. Davis | | | Sampler(s) Signatures: <i>S. Phillips, J.C. Davis</i> | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 6.87 | Time: 1357 | Sampling Completed Tube Dpth(ft): 6.87 | Time: 1415 |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES | <input checked="" type="radio"/> NO | Acid ID# HNO3: DE8300 | H2SO4: NA |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|------------|-----------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| | PE | 500 | HNO3 | 1.0 mL | | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| DPA013723 | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li |
| | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| DPA013725 | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: _____ | Winds: _____ |
| Cloud Cover: _____ | Precip: _____ |
| Remarks: see R10T8 field log for 1Q19 for data | |

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



WELL ID: R10T8 Location: Latitude: **29°45'35.72"** Longitude: **-82°24'06.07"** MSL @ TOC: **181.42** Date In Service: **4-84**
 Quarter: **1&19** Date: **1-18-19** Well Type: **C**

Purging Data

| | | | | | | | |
|-------------------------------------------------------------------|-------------|----------------------|--------------|--------------------|-------------|----------------------------|-------------------------------------|
| Diameter(in) | 2 | Total well depth(ft) | 14.53 | Depth to water(ft) | 5.80 | Well capacity(L/ft) | 0.6 |
| Distance from TOC to top of screen | 9.53 | 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: | 1331 |
| Well Vol = (14.53 - 5.80) X 9.73 0.6 = | | | | | | 5.2 | L 1/4 well vol. = 1.3 |
| Init Tubing Dpth(ft) | 6.6 | Final Tube Dept(ft) | 6.87 | Purge Start Time: | 1333 | Purge Stop time: | 1356 |
| | | | | | | Total Volume Purged | 7.8 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§ | | |
| 1349 | 5.2 | 5.2 | 380 | 6.07 | 5.59 | 19.3 | 152 | 1.10 | 0.96 | -220 | Sulfur |
| 1352 | 1.3 | 6.5 | 380 | 6.07 | 5.89 | 19.3 | 152 | 0.93 | 1.06 | -233 | Odor |
| 1355 | 1.3 | 7.8 | 380 | 6.07 | 5.88 | 19.3 | 151 | 0.73 | 0.90 | -259 | Clear No Color |
| | | | | | | | | | | | |
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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): **S. Phillips, J.C. Davis** Sampler(s) Signatures: *[Signatures]*

| | | | | | | | | | | | |
|------------------|-----------|-----------------|-------------|---------------------------------|-------------|--------------------------------------------|-------------|-----------------------------------|-----------------------|-------|-------------|
| Sampling Method: | PP | Tube Material: | PP/S | Sampling Started Tube Dpth(ft): | 6.87 | Time: | 1357 | Sampling completed Tube Dpth(ft): | 6.87 | Time: | 1415 |
| Field Decon: | NO | Field Filtered: | NO | Duplicate: | YES | <input checked="" type="radio"/> NO | Acid ID# | HNO3: DE83001 | H2SO4: DL62802 | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|----------|-----------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19A012-11A | PE | 2000 | Chill <6 deg | none | n/a | Physical Analysis |
| D19A012-11B | PE | 250 | Chill 6 deg C | none | n/a | Anions |
| D19A012-11C | PE | 250 | Chill + H2SO | 0.5 mL | 1.3 | Demand-NPDOC and NO3+NO2 |
| D19A012-11D | PE | 1000 | HNO3 | 2 mL | 1.3 | Radiological-GA |
| D19A012-11E | PE | 500 | HNO3 | 1 mL | 1.3 | Metals |

Tubing depth is **0.4** ft below depth to water for every instance. Well found locked on arrival Well left locked on departure
 Temperature: **73°F** Winds: **SE @ 6mph** Cloud Cover: **partly cloudy** Precip: **0**
 Remarks: **trees need to be cut back; approaching well. I will write w.o.**

DGS Groundwater Sampling Log



| | | | | | |
|-----------------------------|----------------------|-------------------------------|---------------------------------|--------------------------|------------------------------|
| WELL ID: R11T4 (CCR) | Location: | Latitude: 29°45'58.10" | Longitude: -82°24'11.98" | MSL @ TOC: 178.76 | Date In Service: 4-84 |
| Quarter: <u>Jan 2019</u> | Date: <u>1-18-19</u> | Well Type: C | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|------------------------------------|---------------------------------|----------------------------------------|
| Diameter(in): 2 | Total well depth(ft): 15.17 | Depth to water(ft): 3.39 | Well capacity(L/ft): 0.6 |
| Distance from TOC to top of screen: 10.17 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: <u>1142</u> |
| Well Vol = (15.17 - 3.39) X 0.6 = 7.1 L | | | 1/4 well vol. = |
| Init Tubing Dpth(ft): <u>4.19</u> | Final Tube Dept(ft): <u>5.47</u> | Purge Start Time: <u>1145</u> | Purge Stop time: <u>1231</u> |
| | | | Total Volume Purged: <u>10.7 L</u> |

| 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§ | | |
| <p style="font-size: 2em; opacity: 0.5;">See 1Q19 GW field log for R11T4 for Data</p> | | | | | | | | | | | |
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◆ 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>JC Davis, S. Phillips</u> | | | | Sampler(s) Signatures: <u>JC Davis, S. Phillips</u> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>5.47</u> Time: <u>1232</u> | | Sampling completed Tube Dpth(ft): <u>5.47</u> Time: <u>1232</u> | | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# | HNO3: <u>DE83001</u> | H2SO4: <u>NA</u> | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|---------------|-----------------|----------------------------|-------------------|----------------|----------------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| | PE | 500 | HNO3 | 1.0 mL | | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| <u>D19A013-13B</u> | <u>PE</u> | <u>250</u> | <u>HNO3</u> | <u>0.5 mL</u> | <u>1.3</u> | <u>Metals: Sb, Ti, B, Li</u> |
| | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| <u>D19A013-13D</u> | <u>PE</u> | <u>2000</u> | <u>HNO3</u> | <u>4 mL</u> | <u>1.3</u> | <u>Radium 226+228 Combined</u> |
| | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: _____ | Winds: _____ |
| Cloud Cover: _____ | Precip: _____ |
| Remarks: <u>see 1Q19 GW sample log for R11T4 for Data</u> | |

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | | |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------|--------------------------|---------------------|-----------------|
| WELL ID: R11T4 | Location: | Latitude: 29°45'58.10" | Longitude: -82°24'11.98" | MSL @ TOC | Date In Service |
| Quarter: 1Q19 | Date: 1-18-19 | 178.76 | 4-84 | Well Type: C | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 15.17 | Depth to water(ft) 3.39 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 10.17 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: 2:11:42 | |
| Well Vol = (15.17 - 3.39) X 0.6 = 7.1 L | | 1/4 well vol. = 1.8 | |
| Init Tubing Dpth(ft) 4.19 | Final Tube Dept(ft): 5.47 | Purge Start Time: 5:11:45 | Purge Stop time: 12:31 |
| | | | Total Volume Purged 10.7 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§ | | |
| 1215 | 7.1 | 7.1 | 260 | 3.77 | 5.35 | 18.2 | 281 | 0.18 | 1.03 | -27.2 | Sulfur |
| 1223 | 1.8 | 8.9 | 260 | 3.77 | 5.37 | 18.3 | 283 | 0.19 | 0.54 | -46.0 | Odor |
| 1230 | 1.8 | 10.7 | 260 | 3.77 | 5.39 | 18.3 | 287 | 0.20 | 0.42 | -79.0 | Clear |
| | | | | | | | | | | | |
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◆ 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.C. Davis, S. Phillips</u> | | Sampler(s) Signatures: <u>J.C. Davis, S. Phillips</u> | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>5.47</u> Time: <u>12:30</u> | Sampling completed Tube Dpth(ft): <u>5.47</u> Time: <u>1:30</u> |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> | Acid ID# HNO3: <u>DE 8.3001</u> H2SO4: <u>DL 6.802</u> |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|-----------|-------------|------------------------|---------------|------------|---------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| <u>D19A012-124</u> | <u>PE</u> | <u>2000</u> | <u>Chill <6 deg</u> | <u>none</u> | <u>n/a</u> | <u>Physical Analysis</u> |
| <u>D19A012-123</u> | <u>PE</u> | <u>250</u> | <u>Chill 6 deg C</u> | <u>none</u> | <u>n/a</u> | <u>Anions</u> |
| <u>D19A012-122</u> | <u>PE</u> | <u>250</u> | <u>Chill + H2SO</u> | <u>0.5 mL</u> | <u>1.3</u> | <u>Demand-NPDOC and NO3+NO2</u> |
| <u>D19A012-121</u> | <u>PE</u> | <u>1000</u> | <u>HNO3</u> | <u>2 mL</u> | <u>1.3</u> | <u>Radiological-GA</u> |
| <u>D19A012-12E</u> | <u>PE</u> | <u>500</u> | <u>HNO3</u> | <u>1 mL</u> | <u>1.3</u> | <u>Metals</u> |

Tubing depth is 0.4 ft below depth to water for every instance. Well found locked on arrival Well left locked on departure

Temperature: 72°F Winds: Calm Cloud Cover: partly cloudy Precip: 0

Remarks:

DGS Groundwater Sampling Log



| | | | | |
|--------------------------|----------------------|----------------------|----------------------|----------------------------------------|
| WELL ID: EBLANK | Location: | Latitude: na | Longitude: na | MSL @ TOC Date In Service: 0 na |
| Quarter: <u>Jan 2019</u> | Date: <u>1-17-19</u> | Well Type: na | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|--------------------------------|----------------------------------------|----------------------------------|
| Diameter(in) na | Total well depth(ft) 0 | Depth to water(ft) NA | Well capacity(L/ft) 0 |
| Distance from TOC to top of screen 0 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: <u>1222</u> | |
| Well Vol = (0 - NA) X 0 = NA L | | 1/4 well vol. = | |
| Init Tubing Dpth(ft) NA | Final Tube Dept(ft): NA | Purge Start Time: <u>1225</u> | Purge Stop time: <u>1239</u> |
| | | Total Volume Purged NA 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§ | | |
| <p><i>See 1Q19 Field log for EBlank data</i></p> | | | | | | | | | | | |
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◆ 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>S. Phillips, JC Davis</u> | | | | Sampler(s) Signatures: <u>[Signatures]</u> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>NA</u> | Time: <u>1240</u> | Sampling completed Tube Dpth(ft): <u>NA</u> | Time: <u>1254</u> | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="checkbox"/> | Acid ID# HNO3: DE830C1 | H2SO4: NA | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|---------------|-----------------|----------------------------|-------------------|----------------|----------------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| | PE | 500 | HNO3 | 1.0 mL | | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, S |
| <u>D19A013-140</u> | <u>PE</u> | <u>250</u> | <u>HNO3</u> | <u>0.5 mL</u> | <u>1.3</u> | <u>Metals: Sb, Ti, B, Li</u> |
| | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| <u>D19A013-140</u> | <u>PE</u> | <u>2000</u> | <u>HNO3</u> | <u>4 mL</u> | <u>1.3</u> | <u>Radium 226+228 Combined</u> |
| | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: ISS, TDS |

NA Well found locked on arrival NA Well left locked on departure
 Temperature: _____ Winds: _____ Cloud Cover: _____ Precip: _____
 Remarks: See 1Q19 EBlank field log for data
Dipped Depth meter probe into EBlank before sampling

DGS Groundwater Sampling Log



| | | | |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------|---------------------------------|
| WELL ID EBLANK Location: | Latitude: na | Longitude: na | MSL @ TOC Date In Service: 0 na |
| Quarter: 1Q19 | Date: 1-17-19 | Well Type: na | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-------------------------|------------------------|---------------------------------------------------------------------------------------------|
| Diameter(in) na | Total well depth(ft) 0 | Depth to water(ft) NA | Well capacity(L/ft) 0 |
| Distance from TOC to top of screen 0 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: 1222 |
| Well Vol = (0 - NA) X 0 = NA L | | | 1/4 well vol. = NA |
| Init Tubing Dpth(ft) NA | Final Tube Dept(ft): NA | Purge Start Time: 1225 | Purge Stop time: 1239 |
| | | | Total Volume Purged NA 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§ | | |
| 1232 | NA | NA | 500 | NA | 5.89 | 14.3 | 0.81 | 10.15 | 0.18 | 182 | no odor clear colorless |
| 1235 | NA | NA | 500 | NA | 5.84 | 14.4 | 0.80 | 10.14 | 0.29 | 170 | |
| 1238 | NA | NA | 500 | NA | 5.91 | 14.5 | 0.80 | 10.14 | 0.29 | 168 | |
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◆ 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>S. Phillips, J.C. Davis</i> | | | | Sampler(s) Signatures: <i>S. Phillips, J.C. Davis</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): NA | Time: 1240 | Sampling completed Tube Dpth(ft): NA | Time: 1254 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES | <input checked="" type="radio"/> NO | Acid ID# HNO3: DE63001 | H2SO4: DL62802 | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|----------|-----------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19A012-14A | PE | 2000 | Chill <6 deg | none | n/a | Physical Analysis |
| D19A012-14B | PE | 250 | Chill 6 deg C | none | n/a | Anions |
| D19A012-14C | PE | 250 | Chill + H2SO | 0.5 mL | 1.3 | Demand-NPDOC and NO3+NO2 |
| D19A012-14D | PE | 1000 | HNO3 | 2 mL | 1.3 | Radiological-GA |
| D19A012-14E | PE | 500 | HNO3 | 1 mL | 1.3 | Metals |

Tubing depth is NA ft below depth to water for every instance. NA Well found locked on arrival NA Well left locked on departure
 Temperature: 14°F Winds: Calm Cloud Cover: Sunny & Clear Precip: 0
 Remarks: Dipped depth meter into equip blank prior to sampling
 Sampled EG Blank @ LF4 after LF4

Instrument Calibration Log

Model Star A329

Serial Number G09761

Manufacturer: Thermo Orion

Date Purchased 12-2017

Parameter: (pH)ISE/Cond/DO

GRU Prop Tag# none

QTR: 1Q 19 :used manuf SOP for calibrations and FDEP 1100 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|------------|----------------------------------------------|------|
| Standard A | 7.00, ID# DE 70201, Exp. 2-28-2019 | su |
| Standard B | 4.00, ID# DK 82801, Exp. 6-30-2020 | su |
| Standard C | 10.00, ID# DE 83006, Exp. 4-30-2019 | su |

QC ID# DA 90802 TV 6.22 range 6.02-6.42
 Exp 7-31-2020

| Date | Time | STD A,B,C | STD Value | Instrument Response | Dev./ P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|-------------------|-----------------|---------------|-----------------|---------------------|-----------------|---------------------|-----------------|------------------|
| 1-9-19 | 0835 | A | 7.00 | 7.02 | +0.2/p | Yes | Int | JCD |
| 1-9-19 | 0834 | B | 4.00 | 4.02 | +0.2/p | Yes | Int | JCD |
| 1-9-19 | 0833 | C | 10.00 | 10.09 | +0.9/p | Yes | Int | JCD |
| 1-9-19 | 0857 | QC | 6.20 | 6.20 | 1.00 | — | — | JCD |
| 1-9-19 | 0957 | QC | 6.22 | 6.20 | PASS | — | — | JCD |
| 1-14-19 | 1646 | A | 7.00 | 7.04 | +0.04/p | Cont | Cont | SP |
| 1-15-19 | 1536 | B | 4.00 | 4.02 | +0.02/p | No | Cont | SP |
| 1-16-19 | 1634 | C | 10.00 | 10.14 | +0.14/p | No | Cont | SP |
| 1-17-19 | 1725 | B | 4.00 | 4.03 | +0.03/p | No | Cont | JCD |
| 1-18-19 | 1657 | A | 7.00 | 7.03 | +0.03/p | No | Cont | JCD |
| 1-19-19 | 0923 | C | 10.00 | 10.10 | +0.10/p | No | Cont | SP |

Slope = 99.0%

PASS JB

Instrument Calibration Log

Model Star A329

Serial Number G09761

Manufacturer: Thermo Orion

Date Purchased 12-2017

Parameter: pH/ISE/Cond/DO

GRU Prop Tag# none

QTR: 1Q19 :used manuf SOP for calibrations and FDEP 1200 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|-------------------------------------|----------------------------------------------|-------|
| Standard A | 100, ID# DB82101, Exp 12-31-19 | µS/cm |
| Standard B | 1413, ID# DB80701, Exp 1-31-20 | µS/cm |
| Standard C | 10,000, ID# DB80702, Exp 9-30-19 | µS/cm |
| QC ID# DA90805 TV=339 Range 305-373 | | |

+/- 5%

| Date | Time | STD A,B,C | STD Value | Instrument Response | Dev./ P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|--------------------|------|-----------|-----------|---------------------|---------------|---------------------|-----------------|------------------|
| 1-9-19 | 0839 | A | 100 | 101.2 | +1.2/P | No | Cont | JCD |
| 1-9-19 | 0841 | B | 1413 | 1427 | +1.0/P | No | Cont | JCD |
| 1-9-19 | 0843 | C | 10,000 | 10,240 | +2.4/P | No | Cont | JCD |
| 1-9-19 | 1003 | QC | 339 | 344.8 | Pass | — | — | JCD |
| 1-14-19 | | | | | | | | |
| 1-14-19 | 1647 | B | 1413 | 1490 | 4.0/P Pass | No | Cont | SP |
| 1-15-19 | 1537 | B | 1413 | 1468 | 3.9/P | No | Cont | SP |
| 1-16-19 | 1636 | B | 1413 | 1475 | 4.37/P | No | Cont | SP |
| 1-17-19 | 1726 | B | 1413 | 1442 | 2.0/P | No | Cont | JCD |
| 1-18-19 | 1657 | B | 1413 | 1411 | 0.24/P | No | Cont | JCD |
| 1-19-19 | 0923 | B | 1413 | 1409 | 0.55/P | No | Cont | SP |
| 1-19-19 | 0928 | A | 100 | 101.3 | 1.3/P | No | Cont | SP |
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PASS JB

Instrument Calibration Log

Model 2100Q

Serial Number 14100C035914

Manufacturer: Hach

Date Purchased 11-2014

Parameter: Turbidity

GRU Prop Tag# none

QTR: LQ 19 :used manuif SOP for calibrations and FDEP 1600 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|------------|-------------------------------------------------------------------|------|
| Standard A | 2° Gelex Std 6.01 | NTU |
| Standard B | 2° Gelex Std 57.3 | NTU |
| Standard C | 2° Gelex Std 552 | NTU |
| Standard D | Calibration verification Std. 0.1 NTU, ID# DF 80401, exp. 5-29-19 | NTU |

QC CD# DA90803 Exp 9-30-20
TV 12.9um Range 10.0 - 15.2 NTUs

* See Criteria Below

| Date | Time | STD A,B,C | STD Value | Instrument Response | * Dev./ P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|---------|------|-----------|-----------|---------------------|----------------|---------------------|-----------------|------------------|
| 1-9-19 | 0906 | D | 0.1 | 0.11 | 10%/p | Yes | Int | JCD |
| 1-9-19 | 0913 | A | 6.01 | 5.96 | 0.8%/p | Yes | Int | JCD |
| 1-9-19 | 0914 | B | 57.3 | 57.4 | 0.2%/p | Yes | Int | JCD |
| 1-9-19 | 0914 | C | 552 | 553 | 0.2%/p | Yes | Int | JCD |
| 1-9-19 | 1024 | QC | 12.9 | 12.8 | PASS | — | — | JCD |
| | | | | | | | | |
| 1-14-19 | 1646 | A | 6.01 | 6.05 | 0.8% P | NO | Cont | SP |
| 1-15-19 | 1540 | A | 6.01 | 6.06 | 0.9% P | NO | Cont | SP |
| 1-16-19 | 1635 | B | 57.3 | 57.3 | 0.3% P | NO | Cont | JCD |
| 1-17-19 | 1729 | B | 57.3 | 57.5 | 0.35% P | NO | Cont | JCD |
| 1-18-19 | 1700 | B | 57.3 | 57.5 | 0.35% P | NO | Cont | JCD |
| 1-19-19 | 0927 | A | 6.01 | 5.99 | 0.33% P | NO | Cont | SP |
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PASS JRS

***Acceptance Criteria**
 0.1 to 10.0 NTU = +/- 10%
 11 to 40 NTU = +/- 8%
 41 to 100 NTU = +/- 6.5%
 >100 NTU = +/- 5%

Primary Standards
 10 NTU, ID# DF90101, exp. 5-31-19
 20 NTU, ID# DF90102, exp. 8-31-19
 100 NTU, ID# DF80103, exp. 8-31-19
 800 NTU, ID# DF90104, exp. 8-31-19

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: <u>May 2019</u> | Date: <u>5-9-19</u> | Well Type: U | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------------|----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.88 | Depth to water(ft) 6.40 | 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: <u>0754</u> | |
| Well Vol = (14.88 - 6.40) X 0.6 = 5.1 L | | 1/4 well vol. = N/A | |
| Init Tubing Dpth(ft): <u>10'</u> | Final Tube Dept(ft): <u>10'</u> | Purge Start Time: <u>0800</u> | Purge Stop time: <u>0827</u> |
| | | | Total Volume Purged 8.1 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 |
|-------------|-------------------|--------------------------|-------------------|---------------------|-------------|-------------|-------------|----------------|-----------------|--------------|---------------------------------|
| | | | | | ± 0.2§ | ± 0.2§ | ± 5%§ | 20% sat§ | 20 max§ | | |
| <u>0818</u> | <u>5.1</u> | <u>5.1</u> | <u>320</u> | <u>6.52</u> | <u>5.61</u> | <u>22.4</u> | <u>218</u> | <u>0.20</u> | <u>0.74</u> | <u>150.0</u> | <i>clear colorless odorless</i> |
| <u>0821</u> | <u>1.0</u> | <u>6.1</u> | <u>320</u> | <u>6.52</u> | <u>5.61</u> | <u>22.4</u> | <u>191</u> | <u>0.20</u> | <u>0.54</u> | <u>149.0</u> | |
| <u>0824</u> | <u>1.0</u> | <u>7.1</u> | <u>320</u> | <u>6.52</u> | <u>5.53</u> | <u>22.4</u> | <u>189</u> | <u>0.20</u> | <u>0.63</u> | <u>148.1</u> | |
| <u>0827</u> | <u>1.0</u> | <u>8.1</u> | <u>320</u> | <u>6.52</u> | <u>5.52</u> | <u>22.4</u> | <u>188</u> | <u>0.18</u> | <u>0.46</u> | <u>146.4</u> | |

◆ 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>Charles Davis, Kent Brakefield</u> | | | Sampler(s) Signatures: <u>[Signatures]</u> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>10'</u> | Time: <u>0830</u> | Sampling completed Tube Dpth(ft): <u>10'</u> | Time: <u>0850</u> | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="radio"/> NO | Acid ID# HNO3: D92801 | H2SO4: N/A | | |
| Sample Container Specification | | | Sample Preservation | | * DE 83001 - For metals sample | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | Intended Analysis or method |
| <u>D19E005-01A</u> | <u>PE</u> | <u>500</u> | <u>HNO3</u> | <u>1.0 mL</u> | <u>1.6</u> | <u>Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se</u> |
| <u>D19E005-01B</u> | <u>PE</u> | <u>250</u> | <u>HNO3 *</u> | <u>0.5 mL</u> | <u>1.6</u> | <u>Metals: Sb, Ti, B, Li</u> |
| <u>D19E005-01C</u> | <u>PE</u> | <u>250</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Anions: F, Cl, SO4</u> |
| <u>D19E005-01D</u> | <u>PE</u> | <u>2000</u> | <u>HNO3</u> | <u>4 mL</u> | <u>1.6</u> | <u>Radium 226+228 Combined</u> |
| <u>D19E005-01E</u> | <u>PE</u> | <u>2000</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Solids: TSS, TDS</u> |

Well found locked on arrival Well left locked on departure
 Temperature: 70°F Winds: N 4 mph Cloud Cover: partly cloudy Precip: 0
 Remarks: lock installed on departure

DGS Groundwater Sampling Log



WELL ID: **LF-2** **Location:** **Latitude:** **Longitude:** **MSL @ TOC Date In Service**
Quarter: May 2019 **Date:** 5-9-19 **Well Type:** **D**

Purging Data

| | | | | | | | | |
|-------------------------------------------------------------------|----------|------------------------|-----------------|----------------------------|------|---------------------|--------|-------|
| Diameter(in) | 2 | Total well depth(ft) * | 19.0 | Depth to water(ft) | 5.92 | Well capacity(L/ft) | 0.6 | |
| Distance from TOC to top of screen | 5.36 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: | | | | 1133 |
| Well Vol = (19.0 - 5.92) X 0.6 = 7.9 L | | | | 1/4 well vol. = | | | | 4.7 L |
| Init Tubing Dpth(ft): | 10' | Final Tube Dept(ft): | 10' | Purge Start Time: | 1136 | Purge Stop time: | 1228 | |
| Total Volume Purged 9.7 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§ | | |
| 1219 | 7.9 | 7.9 | 200 | 6.19 | 5.29 | 23.9 | 293 | 0.37 | 7.82 | -66.2 | Clear |
| 1222 | 0.6 | 8.5 | 200 | 6.19 | 5.28 | 23.9 | 301 | 0.38 | 7.24 | -67.6 | Slight Yellow |
| 1225 | 0.6 | 9.1 | 200 | 6.19 | 5.27 | 23.9 | 309 | 0.37 | 6.50 | -68.0 | Color |
| 1228 | 0.6 | 9.7 | 200 | 6.19 | 5.26 | 23.9 | 315 | 0.39 | 6.85 | -70.7 | Strong Sulfur odor |
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◆ 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>Charles Davis, Kent Blakefield</u> | | | | Sampler(s) Signatures: <u>[Signatures]</u> | | | |
| Sampling Method: | PP | Tube Material: | PP/S | Sampling Started Tube Dpth(ft): | 10' | Time: | 1231 |
| | | | | Sampling completed Tube Dpth(ft): | 10' | Time: | 1259 |
| Field Decon: | NO | Field Filtered: | NO | Duplicate: | YES | <input checked="" type="radio"/> NO | Acid ID# HNO3: <u>DC92801</u> H2SO4: <u>N/A</u> |
| Sample Container Specification | | | Sample Preservation | | | * DE83001 - For metals sample | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | Intended Analysis or method | |
| D19E005-02A | PE | 500 | HNO3 | 1.0 mL | 1.6 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | |
| D19E005-02B | PE | 250 | HNO3 * | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li | |
| D19E005-02C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| D19E005-02D | PE | 2000 | HNO3 | 4 mL | 1.6 | Radium 226+228 Combined | |
| D19E005-02E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

Well found locked on arrival Well left locked on departure
 Temperature: 86°F Winds: N @ 7 mph Cloud Cover: Partly cloudy Precip: 0
 Remarks: Installed lock on departure * Estimated well depth (19')

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



WELL ID: **LF-3** **Location:** **Latitude:** **Longitude:** **MSL @ TOC Date In Service**
Quarter: May 2019 **Date:** 5-9-19 **Well Type:** **D**

Purging Data

| | | | | | | | |
|--------------------------------------------------------------------------|------------|-----------------------------|-------------|-----------------------------------------------|-------------|----------------------------------|--------------|
| Diameter(in) | 2 | Total well depth(ft) | 19.0 | Depth to water(ft) | 6.05 | Well capacity(L/ft) | 0.6 |
| Distance from TOC to top of screen | | 6.29 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: <u>1013</u> | | | |
| Well Vol = (19.0 - 6.05) X 0.6 = 7.8 L | | | | 1/4 well vol. = N/A | | | |
| Int Tubing Dpth(ft): | <u>10'</u> | Final Tube Dept(ft): | <u>10'</u> | Purge Start Time: | <u>1016</u> | Purge Stop time: | <u>1055</u> |
| | | | | | | Total Volume Purged | <u>9.6 L</u> |

| 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§ | | |
| 1049 | 2.8 | 2.8 | 300 | 6.29 | 5.77 | 23.6 | 494 | 0.16 | 2.05 | -186.3 | Clear Yellowish color strong sulfur odor |
| 1052 | 0.9 | 8.7 | 300 | 6.29 | 5.77 | 23.6 | 492 | 0.16 | 1.79 | -186.9 | |
| 1055 | 0.9 | 9.6 | 300 | 6.29 | 5.77 | 23.6 | 489 | 0.15 | 2.06 | -187.9 | |
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◆ 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): Charles Davis, Kent Brakefield **Sampler(s) Signatures:** *[Signatures]*

| | | | | | |
|----------------------------|----------------------------|--------------------------------------------------------------|---------------------------------------------|----------------------------------------------|-------------------|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 1100 | Sampling completed Tube Dpth(ft): 10' | Time: 1123 |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="checkbox"/> NO | Acid ID# HNO3: DC92801 H2SO4: | | |

| Sample Container Specification | | | Sample Preservation | | | * DE83001 - For metals sample Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|----------|--------------------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19E005-03A | PE | 500 | HNO3 | 1.0 mL | 6.6 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se |
| D19E005-03B | PE | 250 | HNO3 * | 0.5 mL | 6.6 | Metals: Sb, Ti, B, Li |
| D19E005-03C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19E005-03D | PE | 2000 | HNO3 | 4 mL | 6.6 | Radium 226+228 Combined |
| D19E005-03E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

Well found locked on arrival **Well left locked on departure**
Temperature: 83°F **Winds:** N 8 mph **Cloud Cover:** partly cloudy **Precip:** 0
Remarks: installed lock on departure * Estimated well depth (19')

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | |
|--------------------------|--------------------------------------------------------|---------------------------------|-----------------------------------|----------------------------------------|
| WELL ID: LF-4 | Location: 29°45'50.5008" -82°23'58.6248" 186.01 | Latitude: 29°45'50.5008" | Longitude: -82°23'58.6248" | MSL @ TOC Date In Service: 2017 |
| Quarter: May 2019 | Date: 5-9-19 | Well Type: D | | |

| * A.O Purging Data | | | | | | | | | | | |
|------------------------------------------------------------------------|---------------------------------|-------------------------------|------------------------------|----------------------------------------|---------|----------------------------------|-------------|----------------|-----------------|----------|-----------------------------------------|
| Diameter(in) | Total well depth(ft) | Depth to water(ft) | Well capacity(L/ft) | | | | | | | | |
| 2 | 13.95 | 6.16 | 0.6 | | | | | | | | |
| Distance from TOC to top of screen: 3.95 | | | | Purging Method: PP | | Equipment Volume = 760 mL | | | | | |
| 1 WELL VOLUME(L) = (Total Well Depth - Depth to water) X Well Capacity | | | | Time of Depth Meter Decon: 0900 | | | | | | | |
| Well Vol = (13.95 - 6.16) X 0.6 = 7.7 L | | | | | | 1/4 well vol. = N/A | | | | | |
| Init Tubing Dpth(ft): 10' | Final Tube Dept(ft): 10' | Purge Start Time: 0904 | Purge Stop time: 0941 | Total Volume Purged 9.5 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 |
| 0935 | 1.7 | 1.7 | 280 | 6.48 | 5.50 | 24.4 | 292 | 3.11 | 1.16 | 95.3 | Clear No color Slight sulfur odor |
| 0938 | 0.9 | 8.6 | 280 | 6.48 | 5.47 | 24.4 | 288 | 3.09 | 1.01 | 89.3 | |
| 0941 | 0.9 | 9.5 | 280 | 6.48 | 5.46 | 24.4 | 284 | 3.08 | 0.85 | 85.3 | |

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): Charles Davis, Kent Brakefield | | | | Sampler(s) Signatures: <i>[Signatures]</i> | | | |
|----------------------------------------------------------|----------------------------|--------------------------------------------|-------------------------------|----------------------------------------------|------------------------|------------------------------------------------|--|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 0945 | Sampling completed Tube Dpth(ft): 10' | Time: 1006 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# HNO3: DC92801 | H2SO4: N/A | * DE83001 - for metals | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| D9E005-04A | PE | 500 | HNO3 | 1.0 mL | 1.6 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | |
| D9E005-04B | PE | 250 | HNO3 * | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li | |
| D9E005-04C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| D9E005-04D | PE | 2000 | HNO3 | 4 mL | 1.6 | Radium 226+228 Combined | |
| D9E005-04E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

N/A Well found locked on arrival Well left locked on departure
 Temperature: **76°F** Winds: **NE 5 mph** Cloud Cover: **Partly cloudy** Precip: **0**
 Remarks: **New well - lock installed upon departure.** * Estimated well depth (19')

DGS Groundwater Sampling Log



| | | | | | |
|--------------------------|---------------------|----------------------|----------------------|---------------------|----------------------------|
| WELL ID: EBLANK | Location: | Latitude: na | Longitude: na | MSL @ TOC: 0 | Date In Service: na |
| Quarter: May 2019 | Date: 5-8-19 | Well Type: na | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-------------------------------|-------------------------------|----------------------------------------|
| Diameter(in) na | Total well depth(ft) 0 | Depth to water(ft) N/A | Well capacity(L/ft) 0 |
| Distance from TOC to top of screen 0 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: 0902 |
| Well Vol = (0 - N/A) X 0 = N/A L | | | 1/4 well vol. = N/A |
| Init Tubing Dpth(ft): | Final Tube Dept(ft): | Purge Start Time: | Purge Stop time: |
| | | | Total Volume Purged N/A 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§ | | |
| - See EBLANK created during quarterly groundwater sampling - | | | | | | | | | | | |
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◆ 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): Charles Davis, Kent Brakefield | | | | Sampler(s) Signatures: <i>[Signatures]</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): N/A Time: 0924 | | Sampling completed Tube Dpth(ft): N/A Time: 0943 | | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="radio"/> NO | Acid ID# | HNO3: D92801 | H2SO4: N/A | | |
| Sample Container Specification | | | Sample Preservation | | | * DE83001 - for metals sample Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| — | PE | 500 | HNO3 | 1.0 mL | — | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | |
| D19E00563 | PE | 250 | HNO3 * | 0.5 mL | 1.6 | Metals: Sb, Tl, B, Li | |
| — | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| D19E00505 | PE | 2000 | HNO3 | 4 mL | 1.6 | Radium 226+228 Combined | |
| — | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: 72°F | Winds: NE 4 mph |
| Cloud Cover: clear | Precip: 0 |
| Remarks: | |

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

Instrument Calibration Log

Model Star A329

Serial Number G09761

Manufacturer: Thermo Orion

Date Purchased 12-2017

Parameter: pH/ISE/Cond/DO

GRU Prop Tag# none

QTR: 2Q19 :used manu SOP for calibrations and FDEP 1100 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|-----------------|----------------------------------------------|------|
| Standard A | 7.00, ID# DE 83005, exp 2-29-2020 | Su |
| Standard B | 4.00, ID# K 82801, exp 6-30-2020 | Su |
| Standard C | 10.00, ID# DE 83006, exp 4-30-2019 | Su |
| QC ID# DA 91504 | 10.00 ID# DC 92803, exp 8-31-20 | Su |
| | exp 10-31-2020 | |

+/- 0.2 TU 6.58 Range 6.38 - 6.78

| Date | Time | STD A,B,C | STD Value | Instrument Response | Dev./ P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|---------|------|-----------|-----------|---------------------|--------------|---------------------|-----------------|------------------|
| 4-22-19 | 1244 | A | 7.00 | 7.01 | +0.01/p | Yes | Int | JCD |
| 4-22-19 | 1246 | B | 4.00 | 4.01 | +0.01/p | Yes | Int | JCD |
| 4-22-19 | 1248 | C | 10.00 | 10.04 | +0.04/p | Yes | Int | JCD |
| 4-29-19 | 0825 | QC | 6.58 | 6.60 | PASS | | | JCD PASS JB |
| 5-6-19 | 1707 | A | 7.00 | 7.02 | +0.02/p | No | Cont. | KSB |
| 5-6-19 | 1710 | B | 4.00 | 4.00 | +0.00/p | No | Cont. | KSB |
| 5-7-19 | 1713 | A | 7.00 | 7.03 | +0.03/p | No | Cont. | KSB |
| 5-8-19 | 1616 | D | 10.00 | 9.99 | -0.01/p | No | Cont. | JCD |
| 5-9-19 | 1237 | A | 7.00 | 7.04 | +0.04/p | No | Cont. | JCD |
| 5-9-19 | 1239 | B | 4.00 | 4.04 | +0.04/p | No | Cont. | JCD |
| 5-9-19 | 1241 | E | 10.00 | 10.01 | +0.01/p | No | Cont. | JCD |
| | | V JCD | | | | | | |
| | | 5-10-19 | | | | | | |

slope 98.8;

PASS JB

Instrument Calibration Log

Model 2100Q

Serial Number 14100C035914

Manufacturer: Hach

Date Purchased 11-2014

Parameter: Turbidity

GRU Prop Tag# none

QTR: 2Q17 :used manuf SOP for calibrations and FDEP 1600 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|------------|---------------------------------------------------------------------------------|------------------------------------------------|
| Standard A | 2° Gelex Std 6.14 | NTU |
| Standard B | 2° Gelex Std 59.3 | NTU |
| Standard C | 2° Gelex Std 559 | NTU |
| Standard D | Calibration verification Std. 0.1 NTU, ID# <u>DF80401</u> , exp. <u>5-21-19</u> | QC ID # <u>DA91503</u> exp <u>4-30-2020</u> |

TU = 17.6 Range: 14.7 - 20.7

* See Criteria Below

| Date | Time | STD A,B,C | STD Value | Instrument Response | % Dev./ P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|---------|------|-----------|-----------|---------------------|----------------|---------------------|-----------------|------------------|
| 4-22-19 | 1353 | D | 0.1 | 0.11 | 10%/P | Yes | Int | JCD |
| 4-22-19 | 1357 | A | 6.14 | 6.11 | 0.5%/P | Yes | Int | JCD |
| 4-22-19 | 1358 | B | 59.3 | 58.2 | 1.8%/P | Yes | Int | JCD |
| 4-22-19 | 1401 | C | 559 | 558 | 0.18%/P | Yes | Int | JCD |
| 4-29-19 | 0914 | QC | 17.6 | 17.7 | PASS | | | JCD PASS (SB) |
| 5/6/19 | 1717 | A | 6.14 | 6.14 | 0%/PASS | No | Cont | KSB |
| 5/7/19 | 1723 | B | 59.3 | 59.1 | 0.3%/P | No | Cont | KSB |
| 5/8/19 | 1645 | A | 6.14 | 6.09 | 0.8%/P | No | Cont | KSB |
| 5/9/19 | 1250 | A | 6.14 | 6.10 | 0.65%/P | No | Cont | JCD |
| 5/9/19 | 1252 | B | 59.3 | 59.2 | 0.2%/P | No | Cont | JCD |

***Acceptance Criteria**

- 0.1 to 10.0 NTU = +/- 10%
- 11 to 40 NTU = +/- 8%
- 41 to 100 NTU = +/- 6.5%
- >100 NTU = +/- 5%

Primary Standards

- 10 NTU, ID# DF80101, exp. 8-31-19
- 20 NTU, ID# DF80102, exp. 8-31-19
- 100 NTU, ID# DF80103, exp. 8-31-19
- 800 NTU, ID# DF80104, exp. 8-31-19

CCR Assessment July 2019 Field and Analytical Narrative

Field Narrative:

- The pH, conductivity, RDO and depth meter sensors were verified against the NIST reference thermometer/probe (CP 117152 & CP148863), and the depth meter was selected for the purpose of measuring temperature in the field; however, the conductivity temperature sensor was used for the Equipment Blank since depth meter not used.
- CCR Well sampling was done in conjunction with the Quarterly Groundwater Well sampling that began on Monday, July 15, 2019 and was completed on Friday, July 19, 2019 by J. Charles Davis and Kent Brakefield. All CCR wells were sampled on Tuesday (7/16/19) through Thursday (7-18-19). Additional wells associated with CCR were sampled on Tuesday (7-16-19) through Friday (7-19-19).
- All the water elevations for all the Quarterly GW wells and CCR wells were taken on the first day of GW sampling, (Monday, July 15th). These are not the depths to water reported on the field logs.
- All wells were found secured with a lock upon arrival and left locked upon departure.
- All samples collected for 6020 Metals were preserved in the field.
- Weather:
 1. Monday (7-15-19) temperatures ranged from 90°F to 92°F, with a N winds between 2 and 7 mph and clear skies in the morning and cloudy skies during the afternoon. A brief 10 minute rainfall occurred at the end of the day while collecting samples.
 2. Tuesday (7-16-19) temperatures ranged from 87°F to 94°F, with overcast to cloudy skies and variable winds between 5 and 10 mph.
 3. Wednesday (7-17-19) temperatures ranged from 77°F to 92°F, with clear morning skies that turned overcast. Variable winds between 2 and 5 mph. By afternoon, the skies were darkening and thunder can be heard in the distance. Sampling was stopped for the day. Rainfall readings indicate that 0.63 inches of rain fell that afternoon.
 4. Thursday (7-18-19) temperatures ranged from 72°F to 90°F, with variable cloud cover and winds between 3 and 8 mph.
 5. Friday (7-19-19) temperatures ranged from 81°F to 91°F, with variable cloud cover and winds between 2 and 6 mph. Sampling was completed at 1340 hours.
- SIS-2: The DO was greater than 20% saturation but met the stabilization criteria (+/- 0.2mg/L or readings within 10%, whichever is greater). The tubing connections were tightened in an effort to minimize the DO, but there was no change. This well historically has DO greater than 20%.
- LF-3: The water level for this well was above the screened interval and remained there. Two equipment volumes were purged and then sample parameters were taken every three minutes.
- Equipment Blank: The Equipment Blank was collected at SIS4, after that well was sampled. The depth meter sensor was deconned and then dipped into the Equipment Blank container prior to sampling.
- Instruments: Calibration verifications were performed on all instruments and passed.

Analytical Narrative: Internal Analysis

- TSS and TDS were performed by Deerhaven Laboratory and all results were satisfactory.

Analytical Narrative: External Laboratories

CCR Assessment July 2019 Field and Analytical Narrative

- Kanapaha Laboratory analyzed samples for Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Lead, Molybdenum, and Selenium by Method 200.7. All results were satisfactory.

Note: The Equipment Blank collected for the GW/CCR sampling event had a detectable hit for Barium that was above the MDL, but was less than the PQL. The Barnstead water is the source of the equipment blank, and a similar Barium hit was also detected. The cartridges in our Barnstead filter have been changed as a result.

- PACE Analytical Services analyzed samples for the following metals: Antimony, Lithium, Boron, Thallium, and Fluoride by Method 6020. All results were satisfactory.
- PACE Analytical Services analyzed samples for Chloride, Sulfate, Fluoride and Radium 226 +228 combined. The data for LF-4 Sulfate is qualified [J(M1),L] due to a matrix spike duplicate being outside of the acceptance limits.

Contract Laboratories Used:

- PACE Analytical Services, Inc.
- Kanapaha Laboratory

Submitted by: Kent Brakefield, QAO

DGS Groundwater Sampling Log



| | | | | |
|---------------------------|----------------------|---------------------------------|-----------------------------------|-----------------------------------------------|
| WELL ID: SIS-1 | Location: | Latitude: 29°46'00.1308" | Longitude: -82°23'33.3204" | MSL @ TOC Date In Service: 185.11 2017 |
| Quarter: <u>July 2019</u> | Date: <u>7-16-19</u> | Well Type: U | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 13.92 | Depth to water(ft) 4.10 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 3.92 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: <u>1343</u> |
| Well Vol = (13.92 - 4.10) X 0.6 = 5.90 L | | | 1/4 well vol. = <u>N/A</u> |
| Init Tubing Dpth(ft): <u>9'</u> | Final Tube Dept(ft): <u>9'</u> | Purge Start Time: <u>1346</u> | Purge Stop time: <u>1420</u> |
| | | | Total Volume Purged <u>7.40</u> 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§ | | |
| <u>1412</u> | <u>5.90</u> | <u>5.90</u> | <u>240</u> | <u>4.40</u> | <u>6.44</u> | <u>28.9</u> | <u>422</u> | <u>0.79</u> | <u>2.08</u> | <u>20.8</u> | <u>Clear yellow slight sulfur odor</u> |
| <u>1415</u> | <u>0.75</u> | <u>6.65</u> | <u>240</u> | <u>4.40</u> | <u>6.44</u> | <u>28.9</u> | <u>423</u> | <u>0.72</u> | <u>1.59</u> | <u>20.5</u> | |
| <u>1418</u> | <u>0.75</u> | <u>7.40</u> | <u>240</u> | <u>4.40</u> | <u>6.43</u> | <u>28.9</u> | <u>425</u> | <u>0.69</u> | <u>1.22</u> | <u>19.8</u> | |

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): <u>JC Davis, Ken Bracke Field</u> | | | | Sampler(s) Signatures: <u>[Signatures]</u> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>9'</u> | Time: <u>1422</u> | Sampling completed Tube Dpth(ft): <u>9'</u> | Time: <u>1446</u> | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <u>(NO)</u> | Acid ID# HNO3: <u>92801</u> | H2SO4: <u>92802</u> | <u>N/A</u> KSB 7/16/19 | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|-----------|-------------|------------------------|---------------|------------|-------------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| <u>19G020-05A</u> | <u>PE</u> | <u>500</u> | <u>HNO3</u> | <u>1.0 mL</u> | <u>1.6</u> | <u>Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se</u> |
| <u>19G020-05B</u> | <u>PE</u> | <u>250</u> | <u>HNO3</u> | <u>0.5 mL</u> | <u>1.6</u> | <u>Metals: Sb, Ti, B, Li (preserved in field)</u> |
| <u>19G020-05C</u> | <u>PE</u> | <u>250</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Anions: F, Cl, SO4</u> |
| <u>19G020-05D</u> | <u>PE</u> | <u>2000</u> | <u>HNO3</u> | <u>4 mL</u> | <u>1.3</u> | <u>Radium 226+228 Combined</u> |
| <u>19G020-05E</u> | <u>PE</u> | <u>2000</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Solids: TSS, TDS</u> |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: <u>94°F</u> Winds: <u>w 3 mph</u> | Cloud Cover: <u>Overcast</u> Precip: <u>0</u> |
| Remarks: | |

DGS Groundwater Sampling Log



WELL ID: SIS-2 **Location:** Latitude: 29°45'53.4672" Longitude: -82°23'31.5096" **MSL @ TOC Date In Service:** 183.3 2017
Quarter: July 2019 **Date:** 7/17/19 **Well Type:** D

Purging Data

| | | | | | | | |
|-------------------------------------------------------------------|------|----------------------|-------|--------------------|------|----------------------------|----------------------------|
| Diameter(in) | 2 | Total well depth(ft) | 14.22 | Depth to water(ft) | 5.78 | Well capacity(L/ft) | 0.6 |
| Distance from TOC to top of screen | 4.22 | 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: | 1223 |
| Well Vol = (14.22 - 5.78) X 0.6 = | | | | | | 5.06 | L 1/4 well vol. = N/A |
| Init Tubing Dpth(ft): | 9.0 | Final Tube Dept(ft): | 9.0 | Purge Start Time: | 1225 | Purge Stop time: | 1307 |
| | | | | | | Total Volume Purged | 7.5 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§ | | |
| 1257 | 5.5 | 5.5 | 210 | 6.02 | 6.99 | 30.0 | 471 | 2.95 | 4.06 | 29.9 | Clear No color No odor |
| 1302 | 1.0 | 6.5 | 210 | 6.02 | 6.99 | 30.0 | 471 | 2.93 | 2.38 | 29.5 | |
| 1306 | 1.0 | 7.5 | 210 | 6.02 | 6.99 | 30.0 | 470 | 2.90 | 2.05 | 28.6 | |

> 20% DO
> 20% DO
> 20% DO

◆ 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): *Kevin Brakefield, JC Davis* **Sampler(s) Signatures:** *K. Brakefield, J. Davis*

| | | | |
|----------------------------|----------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 9.0 Time: 1310 | Sampling completed Tube Dpth(ft): 9.0 Time: 1335 |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input type="radio"/> NO <input checked="" type="radio"/> | Acid ID# HNO3: DC92801 H2SO4: N/A |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|----------|------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19G020-06A | PE | 500 | HNO3 | 1.0 mL | 1.3 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se |
| D19G020-06B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li |
| D19G020-06C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19G020-06D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| D19G020-06E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

Well found locked on arrival Well left locked on departure
Temperature: 92°F **Winds:** SSW @ 2 mph **Cloud Cover:** overcast **Precip:** none
Remarks:

DGS Groundwater Sampling Log



| | | | | | |
|---------------------------|----------------------|---------------------------------|-----------------------------------|---------------------|-----------------|
| WELL ID: SIS-3 | Location: | Latitude: 29°45'51.8472" | Longitude: -82°23'35.5632" | MSL @ TOC | Date In Service |
| Quarter: <u>July 2019</u> | Date: <u>7/18/19</u> | 183.11 | 2017 | Well Type: D | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 13.38 | Depth to water(ft) <u>2.65</u> | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 3.38 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: <u>0641</u> |
| Well Vol = (13.38 - 2.65) X 0.6 = 6.45 L | | | 1/4 well vol. = N/A |
| Init Tubing Dpth(ft): <u>9.0</u> | Final Tube Dept(ft): <u>9.0</u> | Purge Start Time: <u>0648</u> | Purge Stop time: <u>0755</u> |
| | | | Total Volume Purged <u>7.1 L</u> |

| 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§ | | |
| <u>0748</u> | <u>6.5</u> | <u>6.5</u> | <u>95</u> | <u>3.52</u> | <u>6.88</u> | <u>27.7</u> | <u>276</u> | <u>1.31</u> | <u>2.36</u> | <u>230.4</u> | Clear No odor Slight yellowish color |
| <u>0751</u> | <u>0.3</u> | <u>6.8</u> | <u>95</u> | <u>3.52</u> | <u>6.85</u> | <u>27.7</u> | <u>281</u> | <u>1.23</u> | <u>2.13</u> | <u>135.4</u> | |
| <u>0755</u> | <u>0.3</u> | <u>7.1</u> | <u>95</u> | <u>3.52</u> | <u>6.84</u> | <u>27.7</u> | <u>284</u> | <u>1.20</u> | <u>2.12</u> | <u>78.7</u> | |
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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): <u>Kent Brakefield, JC Davis</u> | | | | Sampler(s) Signatures: <u>KBrakefield, JCDavis</u> | | | |
|-----------------------------------------------------|----------------------------|------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------|------------|-------------------------------------------------------|--|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>9.0</u> Time: <u>0800</u> | | Sampling completed Tube Dpth(ft): <u>9.0</u> Time: <u>0901</u> | | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="radio"/> NO | Acid ID# HNO3: D92801 | H2SO4: N/A | | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| <u>D19G020-07A</u> | <u>PE</u> | <u>500</u> | <u>HNO3</u> | <u>1.0 mL</u> | <u>1.6</u> | <u>Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se</u> | |
| <u>D19G020-07B</u> | <u>PE</u> | <u>250</u> | <u>HNO3</u> | <u>0.5 mL</u> | <u>1.3</u> | <u>Metals: Sb, Tl, B, Li (preserved in field)</u> | |
| <u>D19G020-07C</u> | <u>PE</u> | <u>250</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Anions: F, Cl, SO4</u> | |
| <u>D19G020-07D</u> | <u>PE</u> | <u>2000</u> | <u>HNO3</u> | <u>4 mL</u> | <u>1.6</u> | <u>Radium 226+228 Combined</u> | |
| <u>D19G020-07E</u> | <u>PE</u> | <u>2000</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Solids: TSS, TDS</u> | |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: <u>72°F</u> | Winds: <u>SE 2 mph</u> |
| Cloud Cover: <u>partly cloudy</u> | Precip: <u>none</u> |
| Remarks: | |

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: <u>July 2019</u> | Date: <u>7/18/19</u> | Well Type: D | | |

| Purging Data | | | | | | | | | | | | |
|-------------------------------------------------------------------|-------------------|--------------------------|-------------------|---------------------|--------------|----------------------------|---------------|---------------------|-----------------|-------------|--------------------------------------------|--------------|
| Diameter(in) | 2 | Total well depth(ft) | 13.7 | Depth to water(ft) | 4.57 | Well capacity(L/ft) | 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: | 5:10 | | | | | |
| Well Vol = (13.7 - 4.57) X 0.6 = 5.5 L | | | | | | 1/4 well vol.= | N/A | | | | | |
| Init Tubing Dpth(ft): | 9.0 | Final Tube Dept(ft): | 9.0 | Purge Start Time: | 09:13 | Purge Stop time: | 09:42 | Total Volume Purged | | | | 7.5 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§ | | | |
| 09:35 | 5.5 | 5.5 | 310 | 4.80 | 6.70 | 27.7 | 389 | 0.72 | 1.87 | 85.6 | Clear No odor Slight yellowish color | |
| 09:38 | 1.0 | 6.5 | 310 | 4.80 | 6.70 | 27.7 | 393 | 0.65 | 1.93 | 72.3 | | |
| 09:42 | 1.0 | 7.5 | 310 | 4.80 | 6.70 | 27.7 | 390 | 0.61 | 1.39 | 66.0 | | |

Decon Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

◆ FDEP SOP Section 2212.3

Sampling Data

| Sampled By(Print): <u>Kent Beckfield, J.C. Davis</u> | | | | Sampler(s) Signatures: <u>[Signatures]</u> | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|------------------------|--------------------------------------------|------------|-------------------------------------------------------|--------------|-----------------------------------|------------|------------|--------------|
| Sampling Method: | PP | Tube Material: | PP/S | Sampling Started Tube Dpth(ft): | 9.0 | Time: | 09:48 | Sampling completed Tube Dpth(ft): | 9.0 | Time: | 10:04 |
| Field Decon: | NO | Field Filtered: | NO | Duplicate: | YES | <input checked="" type="radio"/> NO | Acid ID# | HNO3: DC92801 | H2SO4: | N/A | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | | | | | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | | | | | |
| D19G020-08A | PE | 500 | HNO3 | 1.0 mL | 1.6 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | | | | | |
| D19G020-08B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li (preserved in field) | | | | | |
| D19G020-08C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | | | | | |
| D19G020-08D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined | | | | | |
| D19G020-08E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | | | | | |
| ✓ Well found locked on arrival ✓ Well left locked on departure Temperature: <u>79°F</u> Winds: <u>NE 3 mph</u> Cloud Cover: <u>partly cloudy</u> Precip: <u>none</u> Remarks: | | | | | | | | | | | |

DGS Groundwater Sampling Log



| | | | | | |
|---------------------------|-------------------------------------------------|---------------------------------|-----------------------------------|-----------|------------------------------|
| WELL ID: LF-1 | Location: 29°45'59.0544" -82°23'51.8244" | Latitude: 29°45'59.0544" | Longitude: -82°23'51.8244" | MSL @ TOC | Date In Service: 2017 |
| Quarter: July 2019 | Date: 7/16/19 | Well Type: U | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.88 | Depth to water(ft) 5.11 | 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: 1213 |
| Well Vol = (14.88 - 5.11) X 0.6 = 5.9 L | | | 1/4 well vol. = N/A |
| Init Tubing Dpth(ft): 9.0 | Final Tube Dept(ft): 9.0 | Purge Start Time: 1216 | Purge Stop time: 1252 |
| | | | Total Volume Purged 8.7 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§ | | |
| 1243 | 6.0 | 6.0 | 300 | 5.21 | 6.36 | 27.0 | 443 | 1.43 | 0.89 | 144.3 | Clear No color No odor |
| 1246 | 0.9 | 6.9 | 300 | 5.21 | 6.33 | 27.0 | 425 | 1.31 | 0.41 | 142.9 | |
| 1249 | 0.9 | 7.8 | 300 | 5.22 | 6.32 | 26.9 | 415 | 1.25 | 0.53 | 142.1 | |
| 1252 | 0.9 | 8.7 | 300 | 5.22 | 6.29 | 26.9 | 407 | 1.17 | 0.65 | 141.9 | |
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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>JC Davis, Keith Brakoffield</i> | | | | Sampler(s) Signatures: <i>JC Davis, K Brakoffield</i> | | | |
|-------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------|--------------------|------------------------------------------------|--|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 9.0 | Time: 1255 | Sampling completed Tube Dpth(ft): 9.0 | Time: 1315 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES NO | Acid ID# HNO3: DC92801 | H2SO4: DC92802 N/A | <i>KSB 7/16/19</i> | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| <i>D19G020-01A</i> | PE | 500 | HNO3 | 1.0 mL | <i>1.6</i> | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | |
| <i>D19G020-01B</i> | PE | 250 | HNO3 | 0.5 mL | <i>1.6</i> | Metals: Sb, Ti, B, Li (Preserved in fix (Q)) | |
| <i>D19G020-01C</i> | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| <i>D19G020-01D</i> | PE | 2000 | HNO3 | 4 mL | <i>1.6</i> | Radium 226+228 Combined | |
| <i>D19G020-01E</i> | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: 94°F | Winds: NE @ 3mph |
| Cloud Cover: Partly cloudy | Precip: None |
| Remarks: | |

DGS Groundwater Sampling Log



| | | | | | |
|---------------------------|----------------------|-------------------------------|---------------------------------|--------------------------|------------------------------|
| WELL ID: LF-2 | Location: | Latitude: 29°45'50.46" | Longitude: -82°23'47.40" | MSL @ TOC: 182.33 | Date In Service: 2019 |
| Quarter: <u>July 2019</u> | Date: <u>7/17/19</u> | Well Type: D | | | |

Purging Data

| | | | |
|----------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 15.36 | Depth to water(ft) 4.74 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 5.36 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: 0748

Well Vol = (15.36 - 4.74) X 0.6 = 10.62 L 1/4 well vol. = 2.7 L *N/A KSB 7/17/19*

| | | | | |
|----------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------------|
| Init Tubing Dpth(ft): <u>9.0</u> | Final Tube Dept(ft): <u>9.0</u> | Purge Start Time: <u>0755</u> | Purge Stop time: <u>0857</u> | Total Volume Purged 12.7 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§ | | |
| 0849 | 10.7 | 10.7 | 325 | 5.06 | 5.24 | 28.6 | 302 | 0.13 | 1.46 | 44.3 | Clear No color Strong sulfur odor |
| 0853 | 1.0 | 11.7 ^{11.7} | 325 | 5.06 | 5.23 | 28.5 | 304 | 0.13 | 1.72 | 43.4 | |
| 0857 | 1.0 | 12.7 | 325 | 5.06 | 5.22 | 28.5 | 305 | 0.12 | 1.79 | 42.6 | |
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◆ 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>Kent Brakefield, J. Davis</u> | Sampler(s) Signatures: <u>K. Brakefield, J. Davis</u> |
|-----------------------------------------------------|-------------------------------------------------------|

| | | | |
|----------------------------|----------------------------|--------------------------------------------------------------|----------------------------------------------------------------|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>9.0</u> Time: <u>0902</u> | Sampling completed Tube Dpth(ft): <u>9.0</u> Time: <u>0929</u> |
|----------------------------|----------------------------|--------------------------------------------------------------|----------------------------------------------------------------|

| | | | |
|------------------------|---------------------------|----------------------------|-------------------------------------------------|
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# HNO3: <u>DC92801</u> H2SO4: <u>N/A</u> |
|------------------------|---------------------------|----------------------------|-------------------------------------------------|

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|------------|------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| <u>D19G020-02A</u> | PE | 500 | HNO3 | 1.0 mL | <u>1.3</u> | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se |
| <u>D19G020-02B</u> | PE | 250 | HNO3 | 0.5 mL | <u>1.3</u> | Metals: Sb, Ti, B, Li (preserved in field) |
| <u>D19G020-02C</u> | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| <u>D19G020-02D</u> | PE | 2000 | HNO3 | 4 mL | <u>1.3</u> | Radium 226+228 Combined |
| <u>D19G020-02E</u> | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: <u>17°E</u> Winds: <u>0</u> | Cloud Cover: <u>clear</u> Precip: <u>None</u> |
| Remarks: | |

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | |
|---------------------------|----------------------|-------------------------------|---------------------------------|----------------------------------------------|
| WELL ID: LF-3 | Location: | Latitude: 29°45'50.38" | Longitude: -82°23'52.30" | MSL @ TOC Date In Service: 183.7 2019 |
| Quarter: July 2019 | Date: 7/17/19 | Well Type: D | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------------|----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 16.29 | Depth to water(ft) 4.26 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 6.29 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: 1104 | |
| Well Vol = (16.29 - 4.26) X 0.6 = * 7.25 L | | 1/4 well vol. = N/A | |
| Init Tubing Dpth(ft): 10.0 | Final Tube Dept(ft): 10.0 | Purge Start Time: 1108 | Purge Stop time: 1122 |
| | | Total Volume Purged 2.8 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§ | | |
| 1116 | 1.5 | 1.5 | 210 | 4.41 | 5.73 | 29.7 | 399 | 0.64 | 1.66 | -25.6 | Clear Yellowish color Strong sulfur odor |
| 1119 | 1.65 | 2.15 | 210 | 4.41 | 5.72 | 29.6 | 408 | 0.54 | 2.37 | -38.3 | |
| 1122 | 0.65 | 2.80 | 210 | 4.41 | 5.73 | 29.5 | 412 | 0.47 | 2.94 | -57.1 | |
| * Depth to water remained above the top of screen. Collected parameters after purging two equipment volumes | | | | | | | | | | | |

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): Kent Brakefield, TC Davis | | | | Sampler(s) Signatures: <i>KBrakefield, TC Davis</i> | | | |
| Sampling Method: PP | | Tube Material: PP/S | | Sampling Started Tube Dpth(ft): 10.0 Time: 1125 | | Sampling completed Tube Dpth(ft): 10.0 Time: 1149 | |
| Field Decon: NO | | Field Filtered: NO | | Duplicate: YES NO | | Acid ID# HNO3: DC92801 H2SO4: N/A | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| DIRG020-03A | PE | 500 | HNO3 | 1.0 mL | 1.6 | Metals: As,Ba, Be,Ca,Cd,Cr,Co,Mo,Pb,Se | |
| DIRG020-03B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb,Tl,B,Li (preserved in field) | |
| DIRG020-03C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| DIRG020-03D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined | |
| DIRG020-03E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

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|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: 86°F | Winds: N @ 5mph |
| Cloud Cover: clear | Precip: none |
| 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: <u>July 2019</u> | Date: <u>7/17/19</u> | | | 184.83 | 2019 |
| Well Type: D | | | | | |

Purging Data

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|-------------------------------------------------------------------|-----------------------------------|--------------------------------|--------------------------------|----------------------------------------|--|--|--|
| Diameter(in) 2 | Total well depth(ft) 16.06 | Depth to water(ft) 4.40 | Well capacity(L/ft) 0.6 | | | | |
| Distance from TOC to top of screen 6.06 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: <u>0938</u> | | | |
| Well Vol = (16.06 - 4.40) X 0.6 = 7.0 L | | | | 1/4 well vol. = N/A | | | |
| Init Tubing Dpth(ft): <u>9.0</u> | Final Tube Dept(ft): <u>9.0</u> | Purge Start Time: <u>0943</u> | Purge Stop time: <u>1027</u> | Total Volume Purged <u>9.2 L</u> | | | |

| 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§ | | |
| <u>1019</u> | <u>7.2</u> | <u>7.2</u> | <u>240</u> | <u>4.73</u> | <u>5.02</u> | <u>29.7</u> | <u>217</u> | <u>0.36</u> | <u>0.73</u> | <u>144.9</u> | Clear No color No odor |
| <u>1023</u> | <u>1.0</u> | <u>8.2</u> | <u>240</u> | <u>4.73</u> | <u>5.02</u> | <u>29.7</u> | <u>218</u> | <u>0.35</u> | <u>0.61</u> | <u>143.1</u> | |
| <u>1027</u> | <u>1.0</u> | <u>9.2</u> | <u>240</u> | <u>4.73</u> | <u>5.02</u> | <u>29.7</u> | <u>220</u> | <u>0.35</u> | <u>0.85</u> | <u>141.2</u> | |
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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): <u>Kent Brakefield, FCDawts</u> | | | | Sampler(s) Signatures: <u>KBrakefield, JAdams</u> | | | |
|----------------------------------------------------|-----------|----------------------------|------------------------|-----------------------------------------------------------------|------------|-------------------------------------------------------------------|--|
| Sampling Method: PP | | Tube Material: PP/S | | Sampling Started Tube Dpth(ft): <u>9.0</u> Time: <u>1030</u> | | Sampling completed Tube Dpth(ft): <u>9.0</u> Time: <u>1050</u> | |
| Field Decon: NO | | Field Filtered: NO | | Duplicate: YES (NO) | | Acid ID# HNO3: <u>DC92801</u> H2SO4: <u>N/A</u> | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| <u>D19G020-04A</u> | <u>PE</u> | <u>500</u> | <u>HNO3</u> | <u>1.0 mL</u> | <u>1.3</u> | <u>Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se</u> | |
| <u>D19G020-04B</u> | <u>PE</u> | <u>250</u> | <u>HNO3</u> | <u>0.5 mL</u> | <u>1.6</u> | <u>Metals: Sb, Ti, B, Li (preserved in field)</u> | |
| <u>D19G020-04C</u> | <u>PE</u> | <u>250</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Anions: F, Cl, SO4</u> | |
| <u>D19G020-04D</u> | <u>PE</u> | <u>2000</u> | <u>HNO3</u> | <u>4 mL</u> | <u>1.3</u> | <u>Radium 226+228 Combined</u> | |
| <u>D19G020-04E</u> | <u>PE</u> | <u>2000</u> | <u>Chill <6 deg</u> | <u>n/a</u> | <u>n/a</u> | <u>Solids: TSS, TDS</u> | |

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|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: <u>84°F</u> Winds: <u>0</u> | Cloud Cover: <u>clear</u> Precip: <u>none</u> |
| Remarks: | |

DGS Groundwater Sampling Log



| | | | | | |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------|---------------------------------|---------------|-----------------|
| WELL ID: R4T5 (CCR) | Location: | Latitude: 29°45'52.14" | Longitude: -82°23'33.18" | MSL @ TOC | Date In Service |
| Quarter: July 2019 | Date: 7/16/19 | Well Type: D | | 187.46 | 7-93 |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 15.08 | Depth to water(ft) 10.21 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 5.08 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: 1604 |
| Well Vol = (15.08 - 10.21) X 0.6 = 2.95 L | | | 1/4 well vol. = 0.75 L |
| Init Tubing Dpth(ft): 10.7 | Final Tube Dept(ft): 11.0 | Purge Start Time: 1607 | Purge Stop time: 1635 |
| | | Total Volume Purged 4.50 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§ | | |
| - See 3Q19 Gw field log data for this well - | | | | | | | | | | | |

◆ FDEP SOP Section 2212.3

Sampling Data

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

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|-------------------------------------------------------|----------------------------|---------------------------------------------|-------------------------------|-----------------------------------------------|-------------------|------------------------------------------------|--|
| Sampled By(Print): Kent Brakefield, J.C. Davis | | | | Sampler(s) Signatures: <i>[Signatures]</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 11.0 | Time: 1643 | Sampling completed Tube Dpth(ft): 11.0 | Time: 1732 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# HNO3: DC92801 | H2SO4: DC92802 | N/A | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| --- | PE | 500 | HNO3 | 1.0 mL | N/A | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | |
| D19G020-09B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li (preserved in field) | |
| --- | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| D19G020-09D | PE | 2000 | HNO3 | 4 mL | 1.6 | Radium 226+228 Combined | |
| --- | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

KSB 7/16/19

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|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: 87°F | Winds: _____ Cloud Cover: _____ Precip: _____ |
| Remarks: * See 3Q19 Gw field log for data | |

DGS Groundwater Sampling Log



| | | | | |
|----------------------------|----------------------|-------------------------------|---------------------------------|---------------------------|
| WELL ID: R6T4 (CCR) | Location: | Latitude: 29°46'00.90" | Longitude: -82°23'40.20" | MSL @ TOC Date In Service |
| Quarter: <u>July 2019</u> | Date: <u>7/16/19</u> | 183.6 | 7-93 | Well Type: U |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------------|-----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.13 | Depth to water(ft) <u>2.99</u> | 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: <u>1500</u> | |
| Well Vol = (14.13 - 2.99) X 0.6 = 6.70 L | | 1/4 well vol. = <u>1.7 L</u> | |
| Init Tubing Dpth(ft): <u>3.49</u> | Final Tube Dept(ft): <u>3.69</u> | Purge Start Time: <u>1504</u> | Purge Stop time: <u>1527</u> |
| | | | Total Volume Purged <u>10.1 L</u> |

| 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§ | | |
| <i>- See 3Q19 GW Field log data for this well -</i> | | | | | | | | | | | |
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◆ 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 Brakefield, JC Dav's</u> | | | | Sampler(s) Signatures: <u>[Signatures]</u> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): <u>3.69</u> | Time: <u>1530</u> | Sampling completed Tube Dpth(ft): <u>3.69</u> | Time: <u>1546</u> | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# HNO3: <u>DC92801</u> | H2SO4: <u>N/A</u> | | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| — | PE | 500 | HNO3 | 1.0 mL | <u>N/A</u> | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | |
| <u>D19G020-10B</u> | PE | 250 | HNO3 | 0.5 mL | <u>1.6</u> | Metals: Sb, Ti, B, Li (preserved in field) | |
| — | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| <u>D19G020-10D</u> | PE | 2000 | HNO3 | 4 mL | <u>1.6</u> | Radium 226+228 Combined | |
| — | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: _____ | Winds: _____ |
| Cloud Cover: _____ | Precip: _____ |
| Remarks: <u>* See 3Q19 GW Field log data</u> | |

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | |
|----------------------------|----------------------|-------------------------------|---------------------------------|---------------------------------------------------|
| WELL ID: R6T8 (CCR) | Location: | Latitude: 29°45'39.30" | Longitude: -82°23'42.81" | MSL @ TOC Date In Service 177.97 5-2019 |
| Quarter: July 2019 | Date: 7/19/19 | Well Type: I | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 15.24 | Depth to water(ft) 2.30 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 4.74 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: 1123 |
| Well Vol = (15.24 - 2.30) X 0.6 = 7.8 L | | | 1/4 well vol. = 1.95 L |
| Init Tubing Dpth(ft): 2.80 | Final Tube Dept(ft): 4.03 | Purge Start Time: 1127 | Purge Stop time: 1245 |
| | | | Total Volume Purged 11.8 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§ | | |
| - See 3Q19 Gw field log data for this well - | | | | | | | | | | | |
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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): JC Damin, K Brakefield | | | | Sampler(s) Signatures: <i>JC Damin, K Brakefield</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 4.03 | Time: 1250 | Sampling completed Tube Dpth(ft): 4.03 | Time: 1340 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input checked="" type="radio"/> NO | Acid ID# HNO3: D092801 | H2SO4: N/A | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|------------|------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| --- | PE | 500 | HNO3 | 1.0 mL | N/A | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se |
| D19G020-11B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li (preserved in field) |
| --- | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19G020-11D | PE | 2000 | HNO3 | 4 mL | 1.6 | Radium 226+228 Combined |
| --- | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: _____ | Winds: _____ |
| Cloud Cover: _____ | Precip: _____ |
| Remarks: See 3Q19 Gw field log data for this well. | |

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | | |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------|---------------------------------|---------------------|-----------------|
| WELL ID: R10T8 (CCR) | Location: | Latitude: 29°45'35.72" | Longitude: -82°24'06.07" | MSL @ TOC | Date In Service |
| Quarter: July 2019 | Date: 7/19/19 | 181.42 | 4-84 | Well Type: C | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------|----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 14.53 | Depth to water(ft) 6.14 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 9.53 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: 1017 | |
| Well Vol = (14.53 - 6.14) X 0.6 = 5.05 L | | 1/4 well vol. = 1.3 L | |
| Init Tubing Dpth(ft): 6.14 | Final Tube Dept(ft): 6.89 | Purge Start Time: 1021 | Purge Stop time: 1042 |
| | | Total Volume Purged 7.7 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§ | | |
| - See 3Q19 field log data for this well - | | | | | | | | | | | |

◆ 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>Kent Bakerfield, JCDennis</i> | | | | Sampler(s) Signatures: <i>KBakerfield, JCDennis</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Tube Dpth(ft): 6.14 | Sampling Started Time: 1045 | Tube Dpth(ft): 6.89 | Sampling completed Time: 1101 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input type="radio"/> NO <input checked="" type="radio"/> | Acid ID# HNO3: DC92801 H2SO4: N/A | | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|------------|------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| _____ | PE | 500 | HNO3 | 1.0 mL | N/A | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se |
| D19G020-12B | PE | 250 | HNO3 | 0.5 mL | 1.3 | Metals: Sb, Ti, B, Li (preserved in field) |
| _____ | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19G020-12D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| _____ | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: _____ | Winds: _____ |
| Cloud Cover: _____ | Precip: _____ |
| Remarks: See 3Q19 GW field log | |

DGS Groundwater Sampling Log



| | | | | |
|-----------------------------|----------------------|-------------------------------|---------------------------------|-------------------------------------------------|
| WELL ID: R11T4 (CCR) | Location: | Latitude: 29°45'58.10" | Longitude: -82°24'11.98" | MSL @ TOC Date In Service 178.76 4-84 |
| Quarter: July 2019 | Date: 7/19/19 | Well Type: C | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------------|----------------------------------|
| Diameter(in) 2 | Total well depth(ft) 15.17 | Depth to water(ft) 3.40 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 10.17 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: 0918 | |
| Well Vol = (15.17 - 3.40) X 0.6 = 7.1 L | | 1/4 well vol. = 1.8 L | |
| Init Tubing Dpth(ft): 3.90 | Final Tube Dept(ft): 4.38 | Purge Start Time: 0922 | Purge Stop time: 0947 |
| | | Total Volume Purged 10.1 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 |
|----------------------------------------------|-------------------|--------------------------|-------------------|---------------------|---------|-----------|-------------|----------------|-----------------|----------|------------------------|
| | | | | | ± 0.2§ | ± 0.2§ | ± 5%§ | 20% sat§ | 20 max§ | | |
| - See 3Q19 GW field log data for this well - | | | | | | | | | | | |
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◆ 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): Kent Brakefield, JCD | | | | Sampler(s) Signatures: <i>KBrakefield, JCD</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 4.38 | Time: 0950 | Sampling completed Tube Dpth(ft): 4.38 | Time: 1008 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# HNO3: D092801 | H2SO4: N/A | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|------------|---------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| --- | PE | 500 | HNO3 | 1.0 mL | N/A | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se |
| DAG020-13B | PE | 250 | HNO3 | 0.5 mL | 1.3 | Metals: Sb, Ti, B, Li <i>(preserved in field)</i> |
| --- | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| DAG020-13D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| --- | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: _____ | Winds: _____ |
| Cloud Cover: _____ | Precip: _____ |
| Remarks: - See 3Q19 GW field log for this well - | |

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | | |
|---------------------------|----------------------|------------------------|-------------------------|-----------------------|------------------------------|
| WELL ID: EBLANK | Location: | Latitude: na | Longitude: na | MSL @ TOC 0 | Date In Service na |
| Quarter: July 2019 | Date: 7/18/19 | Well Type: na | | | |

Purging Data

| Diameter(in) na | Total well depth(ft) 0 | Depth to water(ft) N/A | Well capacity(L/ft) 0 | | | | | | | | |
|-------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|----------------------------------------|---------------------|----------------|------------------|-------------------|-------------------------|-------------------------|----------|------------------------|
| Distance from TOC to top of screen 0 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: 1008 | | | | | | | | |
| Well Vol = (0 - N/A) X 0 = N/A L | | | 1/4 well vol. = N/A | | | | | | | | |
| Init Tubing Dpth(ft): | Final Tube Dept(ft): | Purge Start Time: | Purge Stop time: | | | | | | | | |
| Total Volume Purged L | | | | | | | | | | | |
| Time | Volume Purged (L) | Cumul. Volume Purged (L) | Purge rate mL/min | Depth to water (ft) | pH (SU) ± 0.2§ | Temp (°C) ± 0.2§ | Cond (µmho) ± 5%§ | Diss O2 (mg/L) 20% sat§ | Turbidity (ntu) 20 max§ | ORP (mv) | Observed odor or color |
| <p>See 3Q19 GW sampling field log for EBLANK -</p> <p style="margin-left: 100px;">KSB 7/18/19</p> | | | | | | | | | | | |

◆ 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): Kent Brakefield, JCB | | | | Sampler(s) Signatures: <i>[Signature]</i> | | | |
|------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------|-------------------|------------------------------------------------|--|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): N/A | Time: 1032 | Sampling completed Tube Dpth(ft): N/A | Time: 1045 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES NO | Acid ID# HNO3: DC92801 | H2SO4: N/A | | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| --- | PE | 500 | HNO3 | 1.0 mL | N/A | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | |
| D19G020-14B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li | |
| --- | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| D19G020-14D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined | |
| --- | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

N/A Well found locked on arrival N/A Well left locked on departure
 Temperature: **82°F** Winds: **N @ 3 mph** Cloud Cover: **partly cloudy** Precip: **None**

Remarks: **See 3Q19 EBlank field log for data. Depth probe dipped in sample before sampling**

Instrument Calibration Log

Model 2100Q

Serial Number 14100C035914

Manufacturer: Hach

Date Purchased 11-2014

Parameter: Turbidity

GRU Prop Tag# none

QTR: 3Q19 :used manuf SOP for calibrations and FDEP1600 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|------------|-----------------------------------------------------------------------------------|------|
| Standard A | 2° Gelex Std 6.20 | NTU |
| Standard B | 2° Gelex Std 58.8 | NTU |
| Standard C | 2° Gelex Std 566 | NTU |
| Standard D | Calibration verification Std. 0.1 NTU, ID# <u>DE92301</u> , exp. <u>5/31/2020</u> | |

TU = 17.3 Range: 14.4-20.3 *See Criteria Below

| Date | Time | STD A,B,C | STD Value | Instrument Response | Dev./ P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|---------|------|-----------|-----------|---------------------|--------------|---------------------|-----------------|------------------|
| 7-10-19 | 0857 | D | 0.1 | 0.11 | 10%/P | Yes | Int | KSB |
| 7-10-19 | 0930 | A | 6.20 | 6.32 | 1.9%/P | Yes | Int | JCD |
| 7-10-19 | 0932 | B | 58.8 | 58.7 | 0.17%/P | Yes | Int | JCD |
| 7-10-19 | 0933 | C | 566 | 566 | 0.002%/P | Yes | Int | JCD |
| 7-10-19 | 1003 | QC | 17.3 | 17.9 | PASS | | | JCD PASS (SB) |
| 7-15-19 | 1701 | A | 6.20 | 6.22 | +0.3%/P | NO | Cont | JCD |
| 7-16-19 | 1710 | A | 6.20 | 6.18 | -0.4%/P | No | Cont | KSB |
| 7-17-19 | 1410 | A | 6.20 | 6.17 | -0.5%/P | No | Cont | KSB |
| 7-18-19 | 1916 | B | 58.8 | 58.8 | 0.00%/P | No | Cont | JCD |
| 7-19-19 | 1309 | A | 6.20 | 6.19 | -0.16%/P | No | Cont | JCD |
| | | | | | | | | |
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***Acceptance Criteria**
 0.1 to 10.0 NTU = +/- 10%
 11 to 40 NTU = +/- 8%
 41 to 100 NTU = +/- 6.5%
 >100 NTU = +/- 5%

Primary Standards
 10 NTU, ID# DF80101, exp. 8-31-19
 20 NTU, ID# DF80102, exp. 8-31-19
 100 NTU, ID# DF80103, exp. 8-31-19
 800 NTU, ID# DF80104, exp. 8-31-19

CCR Assessment October 2019 Field and Analytical Narrative

Field Narrative:

- The pH, conductivity, RDO and depth meter sensors were verified against the NIST reference thermometer/probe (CP 117152 & CP148863), and the depth meter was selected for the purpose of measuring temperature in the field; however, the conductivity temperature sensor was used for the Equipment Blank since depth meter not used.
- CCR Well sampling was done in conjunction with the Quarterly Groundwater Well sampling that began on Monday, October 21, 2019 and was completed on Thursday, October 24, 2019 by Kimberly Morrison and Kent Brakefield. All CCR wells were sampled on Thursday, October 24, 2019. The Equipment Blank associated with this event was collected on Wednesday, October 23, 2019 at Groundwater Well R6T8.
- All the water elevations for all the Quarterly GW wells and CCR wells were taken on the first day of GW sampling, (Monday, October 21st). These are not the depths to water reported on the field logs.
- All wells were found secured with a lock upon arrival and left locked upon departure.
- All samples collected for 6020 Metals were preserved in the field.
- Weather:
 1. Monday (10-21-19) temperatures were in the upper 70s with winds around 7mph and mostly cloudy all day and light intermittent sprinkles of rain throughout the day.
 2. Tuesday (10-22-19) temperatures were in the low 70s to mid-80s with winds 7 to 8 mph. When we arrived at R3T7 the winds were increasing towards the end of purging. Winds became really high and it began to rain. The well was covered during this time, so the well was not compromised.
 3. Wednesday (10-23-19) temperatures ranged from low 60s to high 70s, with winds between 10-15 mph.
 4. Thursday (10-24-19) temperatures ranged from high 60s to mid-70s, with variable cloud cover and winds between 7 and 10 mph.
- LF-3: The water level for this well was above the screened interval and remained there. Two equipment volumes were purged and then sample parameters were taken every three minutes.
- LF-4: The turbidity at this well was high and required extra parameters. Parameters were collected every five minutes until turbidity fell below 20%. Samples were then collected.
- Equipment Blank: The Equipment Blank was collected on October 23 at well R6T8, after that well had been sampled. The depth meter sensor was deconned and then dipped into the Equipment Blank container prior to sampling.
- Instruments: Calibration verifications were performed on all instruments and passed.

CCR Assessment October 2019 Field and Analytical Narrative

Analytical Narrative: Internal Analysis

- TSS and TDS were performed by Deerhaven Laboratory. All TDS results were satisfactory, but TSS required reanalysis due to a QC failure. The samples that were still within holding time, along with a new QC sample were reanalyzed. There was not enough remaining sample volume however to meet the method criteria for all of the samples. Therefore some TSS results have been given a “J” qualifier (Estimated value. Insufficient volume used per method.).

Analytical Narrative: External Laboratories

- Kanapaha Laboratory analyzed samples for Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Lead, Molybdenum, and Selenium by Method 200.7. All results were satisfactory.

Note: The Equipment Blank collected for the GW/CCR sampling event had a detectable hit for Barium that was above the MDL, but was less than the PQL. The Barnstead water is the source of the equipment blank, and a similar Barium hit was also detected. The cartridges in our Barnstead filter were replaced prior to this sampling event due to a similar result in the previous quarter.

- PACE Analytical Services analyzed samples for the following metals: Antimony, Lithium, Boron, and Thallium by Method 6020. The results for Antimony in LF2 and the Equipment Blank are qualified with a “V” which “Indicates that the analyte was detected in both the sample and the associated method blank”. All other results were satisfactory.
- PACE Analytical Services analyzed samples for Chloride, Sulfate, Fluoride and Radium 226 +228 combined. All results are satisfactory.

Contract Laboratories Used:

- PACE Analytical Services, Inc.
- Kanapaha Laboratory

Submitted by: Kent Brakefield, QAO

DGS Groundwater Sampling Log



| | | | | | |
|---------------------------|-----------------------|-------------------------------|---------------------------------|-------------------------|-----------------------------|
| WELL ID: LF-2 | Location: | Latitude: 29°45'50.46" | Longitude: -82°23'47.40" | MSL @ TOC 182.33 | Date In Service 2019 |
| Quarter: Oct. 2019 | Date: 10/25/19 | Well Type: D | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 15.36 | Depth to water(ft) 4.72 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 5.36 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: 0758 |
| Well Vol = (15.36 - 4.72) X 0.6 = 6.4 L | | | 1/4 well vol. = 1.6 L |
| Init Tubing Dpth(ft): 10' | Final Tube Dept(ft): 10' | Purge Start Time: 0801 | Purge Stop time: 0903 |
| | | | Total Volume Purged 7.2 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§ | | |
| 0857 | 6.4 | 6.4 | 130 | 4.93 | 5.15 | 24.6 | 336.4 | 0.26 | 2.13 | 131.4 | Clear Yellowish color Sulfur odor |
| 0900 | 0.4 | 6.8 | 130 | 4.93 | 5.15 | 24.6 | 339.7 | 0.24 | 1.99 | 126.9 | |
| 0903 | 0.4 | 7.2 | 130 | 4.93 | 5.16 | 24.7 | 341.3 | 0.24 | 1.81 | 121.6 | |

◆ 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): Kent Brakefield, Kim Morrison | | | Sampler(s) Signatures: <i>KBrakefield, KMorrison</i> | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 0900 | Sampling completed Tube Dpth(ft): 10' | Time: 0951 |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# HNO3: DC92801 | H2SO4: DC KSB 10/25/19 | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|----------|------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19I032-01A | PE | 500 | HNO3 | 1.0 mL | 1.6 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se |
| D19I032-01B | PE | 250 | HNO3 | 0.5 mL | 1.3 | Metals: Sb, Ti, B, Li (preserved in field) |
| D19I032-01C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19I032-01D | PE | 2000 | HNO3 | 4 mL | 1.6 | Radium 226+228 Combined |
| D19I032-01E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

| | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------|------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure | | |
| Temperature: 76°F | Winds: 7 mph | Cloud Cover: Sunny | Precip: 0 |
| Remarks: Depth to water stayed above screen, waited til parameters were stable before recording parameters; Following purging method for well screen completely submerged | | | |
| Scenario 1, option 1a | | | |
| Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B | | | |

DGS Groundwater Sampling Log



| | | | | | |
|----------------------|-----------------------|-------------------------------|---------------------------------|-------------------------|------------------------------|
| WELL ID: LF-3 | Location: | Latitude: 29°45'50.38" | Longitude: -82°23'52.30" | MSL @ TOC: 183.7 | Date In Service: 2019 |
| Quarter: 4Q19 | Date: 10/25/19 | Well Type: D | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|------------------------------------|---------------------------------|-----------------------------------------|
| Diameter(in): 2 | Total well depth(ft): 16.29 | Depth to water(ft): 4.91 | Well capacity(L/ft): 0.6 |
| Distance from TOC to top of screen: 6.29 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: 10:21 |
| Well Vol = (16.29 - 4.91) X 0.6 = * 6.8 L | | | 1/4 well vol. = 1.7 |

| | | | | |
|----------------------------------|---------------------------------|--------------------------------|-------------------------------|-----------------------------------|
| Init Tubing Dpth(ft): 10' | Final Tube Dept(ft): 10' | Purge Start Time: 10:23 | Purge Stop time: 10:44 | Total Volume Purged: 2.5 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§ | | |
| 10:35 | 1.5 | 1.5 | 170 | 4.97 | 5.61 | 24.7 | 875.4 | 0.53 | 2.25 | 15.4 | Sulfur Odor yellowish color |
| 10:38 | 1.5 2.0 | 3.0 | 170 | 4.97 | 5.61 | 24.7 | 877.7 | 0.37 | 2.12 | 5.7 | |
| 10:41 | 0.5 | 2.5 | 170 | 4.97 | 5.61 | 24.8 | 881.3 | 0.21 | 1.86 | -8.9 | |
| * Depth to water remained above the top of screen. Collected parameters after purging two equipment volumes. | | | | | | | | | | | |

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. Morrison, K. Brakefield | | | | Sampler(s) Signatures: <i>[Signatures]</i> | | | |
|------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------|--------------------|-------------------------------------------------------|--|
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 10:44 | Sampling completed Tube Dpth(ft): 10' | Time: 11:19 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input type="radio"/> NO <input checked="" type="radio"/> | Acid ID# HNO3: DC92801 | H2SO4: DC92802 | | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| D19103202 A | PE | 500 | HNO3 | 1.0 mL | 1.6 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | |
| D19103202 B | PE | 250 | HNO3 | 0.5 mL | 1.6 | Metals: Sb, Ti, B, Li (preserved in field) | |
| D19103202 C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| D19103202 D | OPE | 2000 | HNO3 | 4 mL | 1.6 | Radium 226+228 Combined | |
| D19103202 E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

| | | | |
|-----------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------|---------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure | | |
| Temperature: 87°F | Winds: 13 mph | Cloud Cover: Mostly cloudy | Precip: None |
| Remarks: Followed Scenario 1, option (a) for purge procedures. | | | |

DGS Groundwater Sampling Log



| | | | | | |
|----------------------|-----------------------|-------------------------------|---------------------------------|-----------|------------------------------|
| WELL ID: LF-4 | Location: | Latitude: 29°45'50.43" | Longitude: -82°23'58.46" | MSL @ TOC | Date In Service: 2019 |
| Quarter: 4Q19 | Date: 10/25/19 | Well Type: D | | | |

Purging Data

| | | | |
|-------------------------------------------------------------------|-----------------------------------|--------------------------------|-----------------------------------------|
| Diameter(in) 2 | Total well depth(ft) 16.06 | Depth to water(ft) 4.93 | Well capacity(L/ft) 0.6 |
| Distance from TOC to top of screen 6.06 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: 11:28 |
| Well Vol = (16.06 - 4.93) X 0.6 = 6.7 L | | | 1/4 well vol. = 1.7 L |
| Init Tubing Dpth(ft): 0' | Final Tube Dept(ft): 0' | Purge Start Time: 11:29 | Purge Stop time: 12:12 |
| | | | Total Volume Purged 5.7 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§ | | |
| 1141 | 1.5 | 1.5 | 170 | 4.95 | 4.53 | 25.3 | 392.2 | 0.79 | 60.8 | 318.5 | Turbid ↓ < 20% turbidity |
| 1146 | 0.7 | 2.2 | 170 | 4.95 | 4.59 | 25.3 | 414.9 | 0.58 | 46.6 | 296.1 | |
| 1152 | 0.7 | 2.9 | 170 | 4.95 | 4.66 | 25.3 | 430.3 | 0.52 | 36.2 | 278.8 | |
| 1157 | 0.7 | 3.6 | 170 | 4.95 | 4.68 | 25.3 | 441.2 | 0.55 | 25.1 | 266.4 | |
| 1202 | 0.7 | 4.3 | 170 | 4.95 | 4.73 | 25.3 | 453.6 | 0.54 | 21.3 | 250.9 | |
| 1207 | 0.7 | 5.0 | 170 | 4.95 | 4.72 | 25.3 | 455.9 | 0.49 | 21.0 | 246.7 | |
| 1212 | 0.7 | 5.7 | 170 | 4.95 | 4.75 | 25.3 | 470.9 | 0.55 | 16.2 | 237.5 | |

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. Monson, Kent Brakefield | | | | Sampler(s) Signatures: <i>[Signatures]</i> | | | |
| Sampling Method: PP | Tube Material: PP/S | Sampling Started Tube Dpth(ft): 10' | Time: 12:14 | Sampling completed Tube Dpth(ft): 10' | Time: 12:49 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES <input type="radio"/> NO <input checked="" type="radio"/> | Acid ID# HNO3: DC92801 | H2SO4: DC92802 | | | |

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|----------|------------|---------------------|--------------|------------|------------------------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| D19I032-A | PE | 500 | HNO3 | 1.0 mL | 1.3 | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se |
| D19I032-B | PE | 250 | HNO3 | 0.5 mL | 1.3 | Metals: Sb, Ti, B, Li (preserved in field) |
| D19I032-C | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 |
| D19I032-D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined |
| D19I032-E | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS |

| | |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Well found locked on arrival | <input checked="" type="checkbox"/> Well left locked on departure |
| Temperature: 83°F Winds: 13 mph | Cloud Cover: Misty Cloudy Precip: None |
| Remarks: | |

Codes: PP/S + Polypropylene+Silicone tubing PP: Peristaltic Pump PE: Polyethylene B

DGS Groundwater Sampling Log



| | | | | | |
|------------------------------|-----------------------|----------------------|----------------------|---------------------|----------------------------|
| WELL ID: EBLANK | Location: | Latitude: na | Longitude: na | MSL @ TOC: 0 | Date In Service: na |
| Quarter: October 2019 | Date: 10/24/19 | Well Type: na | | | |

Purging Data

| Diameter(in): na | Total well depth(ft): 0 | Depth to water(ft): N/A | Well capacity(L/ft): 0 | | | | | | | | |
|------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|----------------------------------------|----------------------------------|-------------------|---------------------|----------------------|-------------------------------|----------------------------|----------|------------------------|
| Distance from TOC to top of screen: 0 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: 0755 | | | | | | | | |
| Well Vol = (0 - N/A) X 0 = N/A L | | | 1/4 well vol. = N/A | | | | | | | | |
| Init Tubing Dpth(ft): | | Final Tube Dept(ft): | | Purge Start Time: | | Purge Stop time: | | Total Volume Purged: L | | | |
| Time | Volume Purged (L) | Cumul. Volume Purged (L) | Purge rate mL/min | Depth to water (ft) | pH (SU) ± 0.2§ | Temp (°C) ± 0.2§ | Cond (µmho) ± 5%§ | Diss O2 (mg/L) 20% sat§ | Turbidity (ntu) 20 max§ | ORP (mv) | Observed odor or color |
| <p style="font-size: 1.2em; font-family: cursive;">- See 4Q19 GW sampling field log for EBLANK -</p> | | | | | | | | | | | |

Decon Depth Mtr - rinse with analyte free water
§Purge method FDEP-SOP 2212.3.1

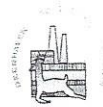
◆ FDEP SOP Section 2212.3

Sampling Data

| Sampled By(Print): Kent Brakefield, Kim Morrison | | | | Sampler(s) Signatures: <i>KBrakefield</i> | | | |
|---------------------------------------------------------|----------------------------|----------------------------|------------------------------------|-------------------------------------------|--------------------------------------|-------------------------------------------------|--|
| Sampling Method: PP | Tube Material: PP/S | Tube Dpth(ft): N/A | Sampling Started Time: 0845 | Tube Dpth(ft): N/A | Sampling completed Time: 0901 | | |
| Field Decon: NO | Field Filtered: NO | Duplicate: YES (NO) | Acid ID# | HNO3: DC92801 | H2SO4: DC N/A | | |
| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method | |
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | | |
| — | PE | 500 | HNO3 | 1.0 mL | — | Metals: As, Ba, Be, Ca, Cd, Cr, Co, Mo, Pb, Se | |
| D191032-04B | PE | 250 | HNO3 | 0.5 mL | 1.3 | Metals: Sb, Tl, B, Li <i>preserved in field</i> | |
| — | PE | 250 | Chill <6 deg | n/a | n/a | Anions: F, Cl, SO4 | |
| D191032-04D | PE | 2000 | HNO3 | 4 mL | 1.3 | Radium 226+228 Combined | |
| — | PE | 2000 | Chill <6 deg | n/a | n/a | Solids: TSS, TDS | |

N/A Well found locked on arrival **N/A** Well left locked on departure
 Temperature: _____ Winds: _____ Cloud Cover: _____ Precip: _____
 Remarks: **See 4Q19 GW sampling field log. Collected at R6T8**

DGS Groundwater Sampling Log



WELL ID **EBLANK** Location: Latitude: Longitude: MSL @ TOC Date In Service
 na na 0 na

Quarter: 4Q19 Date: 10/24/19 Well Type: na

Purging Data

Diameter(in) na Total well depth(ft) 0 Depth to water(ft) N/A Well capacity(L/ft) 0

Distance from TOC to top of screen 0 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: 0755

Well Vol = (0 - N/A) X 0 = N/A L 1/4 well vol. =

Init Tubing Dpth(ft): N/A Final Tube Dept(ft): N/A Purge Start Time: 0812 Purge Stop time: 0843 Total Volume Purged N/A 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§ | | |
| 0833 | N/A | N/A | 440 | N/A | 5.40 | 18.3 | 2.68 | 8.59 | 0.18 | 421.4 | Clear No color No color |
| 0836 | N/A | N/A | 440 | N/A | 5.40 | 18.3 | 2.82 | 8.62 | 0.14 | 420.3 | |
| 0840 | N/A | N/A | 440 | N/A | 5.39 | 18.3 | 2.87 | 8.61 | 0.14 | 423.5 | |
| 0843 | N/A | N/A | 440 | N/A | 5.40 | 18.4 | 2.91 | 8.61 | 0.13 | 428.9 | |
| | | | | | | | | | | | |

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): Kent Brakefield, Kim Morrison Sampler(s) Signatures: KBrakefield, KMorrison

Sampling Method: PP Tube Material: PP/S Sampling Started Tube Dpth(ft): N/A Time: 0845 Sampling completed Tube Dpth(ft): N/A Time: 0901

Field Decon: NO Field Filtered: NO Duplicate: YES NO Acid ID# HNO3: DC92801 H2SO4: DC92802

| Sample Container Specification | | | Sample Preservation | | | Intended Analysis or method |
|--------------------------------|-----------|-------------|------------------------|---------------|------------|---------------------------------|
| ID: | Material | Volume(mL) | Preservative | Volume added | final pH | |
| <u>DR1031-14A</u> | <u>PE</u> | <u>2000</u> | <u>Chill <6 deg</u> | <u>none</u> | <u>n/a</u> | <u>Physical Analysis</u> |
| <u>DR1031-14B</u> | <u>PE</u> | <u>250</u> | <u>Chill 6 deg C</u> | <u>none</u> | <u>n/a</u> | <u>Anions</u> |
| <u>DR1031-14C</u> | <u>PE</u> | <u>250</u> | <u>Chill + H2SO</u> | <u>0.5 mL</u> | <u>1.3</u> | <u>Demand-NPDOC and NO3+NO2</u> |
| <u>DR1031-14D</u> | <u>PE</u> | <u>1000</u> | <u>HNO3</u> | <u>2 mL</u> | <u>1.3</u> | <u>Radiological-GA</u> |
| <u>DR1031-14E</u> | <u>PE</u> | <u>500</u> | <u>HNO3</u> | <u>1 mL</u> | <u>1.3</u> | <u>Metals</u> |

Tubing depth is N/A ft below depth to water for every instance. N/A Well found locked on arrival N/A Well left locked on departure
 Temperature: 68°F Winds: N @ 5 mph Cloud Cover: clear Precip: 0
 Remarks: Collected at RGT8. Depth probe deconned and dipped in container prior to sampling.

Instrument Calibration Log

Std NIST

NIST

Model Acorn Series

Serial Number SN: 2210484 exp 6-17-2028

certified CP

Manufacturer: N/A

Date Purchased unk

Parameter: Temperature

GRU Prop Tag# none

QTR: 4&19 :used manufacture SOP for calibrations and FIDEPI 00 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|------------|-----------------------------------------------------------------------------------------|------|
| Standard A | Conductivity Sensor (on A329 Meter) (pH probe uses Cond. Sensor for temp) SN: V01-19425 | °C |
| Standard B | RDO Sensor (on A329 Meter) SN: 10068417 | °C |
| Standard C | Depth Meter SN: 08-0504 A329 Meter SN: 609761 | °C |

T/- 0.5

| Date | Time | STD A,B,C | STD Value | Instrument Response | Dev./ P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------|-----------|---------------------|--------------|---------------------|-----------------|------------------|
| 10-10-19 | 12:48 | A | 22.1 | 22.4 | P +0.3 | NO | cont | Km |
| 10-10-19 | 12:48 | B | 22.1 | 22.6 | P +0.5 | NO | cont | Km |
| 10-10-19 | 12:48 | C | 22.1 | 22.4 | P +0.3 | NO | cont | Km |
| 10-10-19 | 12:54 | A | 25.0 | 25.3 | P +0.3 | NO | cont | Km |
| 10-10-19 | 12:54 | B | 25.0 | 25.4 | P +0.4 | NO | cont | Km |
| 10-10-19 | 12:54 | C | 25.0 | 25.3 | P +0.3 | NO | cont | Km |
| 10-10-19 | 12:55 | A | 28.0 | 28.3 | P +0.3 | NO | cont | Km |
| 10-10-19 | 12:55 | B | 28.0 | 28.4 | P +0.4 | NO | cont | Km |
| 10-10-19 | 12:55 | C | 28.0 | 28.3 | P +0.3 | NO | cont | Km |
| <div style="border: 1px solid black; padding: 5px; display: inline-block;"> Correct temp. +0.3 Km 10/10/19 Km 10/10/19 </div> | | | | | | | | |
| 12/3/19 | 13:20 | A | 19.9 | 20.2 | P +0.3 | NO | cont | Km |
| 12/3/19 | 13:20 | B | 19.9 | 20.2 | P +0.3 | NO | cont | Km |
| 12/3/19 | 13:20 | C | 19.9 | 20.4 | P +0.5 | NO | cont | Km |

Instrument Calibration Log

Model Star A329

Serial Number G09761

Manufacturer: Thermo Orion

Date Purchased 12-2017

Parameter: PH/ISE/Cond/DO

GRU Prop Tag# none

QTR: 4Q19 :used Manufacturer SOP for calibrations and EDEP 1100 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|------------|----------------------------------------------|------|
| Standard A | 7.00 ID# DE83005 Exp 2/29/2020 | Su |
| Standard B | 4.00 ID# DK82801 Exp 6/30/2020 | Su |
| Standard C | 10.00 ID# DC92803 Exp 8/31/2020 | Su |

QC D1497501 TU = 6.01 Range: 5.81 - 6.21

| Date | Time | STD A,B,C | STD Value | Instrument Response | Dev. +/- P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|---------------------|------------------|--------------|-----------------|---------------------|--------------------|---------------------|-----------------|------------------|
| 10-10-19 | 10:50 | A | 7.00 | 7.01 | P +0.01 | yes | Int | Km |
| 10-10-19 | 10:51 | B | 4.00 | 4.01 | P +0.01 | yes | Int | Km |
| 10-10-19 | 10:52 | C | 10.00 | 10.04 | P +0.04 | yes | Int | Km |
| 10-10-19 | 10:53 | A | 7.00 | 7.04 | P +0.04 | NO | cont | Km |
| 10-10-19 | 10:53 | B | 4.00 | 4.02 | P +0.02 | NO | Cont | Km |
| 10-10-19 | 10:54 | C | 10.00 | 10.05 | P +0.05 | NO | Cont | Km |
| 10-10-19 | 14:18 | QC | 6.01 | 6.00 | P +0.01 | NO | Cont | Km |
| 10-21-19 | 1732 | A | 7.00 | 7.01 | P +0.01 | No | cont | KSB |
| 10-21-19 | 1735 | B | 4.00 | 4.03 | P +0.03 | No | cont | KSB |
| 10-22-19 | 16:05 | A | 7.00 | 7.04 | P +0.04 | NO | Cont | Km |
| 10/23/19 | 1520 | A | 7.00 | 7.01 | P +0.01 | No | cont | KSB |
| 10/24/19 | 14:11 | A | 7.00 | 7.00 | P +0.00 | No | cont | Km |
| 10/25/19 | 12:20 | A | 7.00 | 7.02 | P +0.02 | NO | Cont | Km |
| 10/30/19 | 0735 | A | 7.00 | 7.02 | P +0.02 | No | cont | KSB |
| 10/30/19 | 0958 | A | 7.00 | 7.03 | P +0.03 | No | cont | KSB |
| 11/26/19 | 1542 | A | 7.00 | 7.01 | P +0.01 | No | cont | KSB |
| 11/27/19 | 1225 | B | 4.00 | 4.03 | P +0.03 | No | cont | KSB |

Slope 99.5%

PASS (S)

Instrument Calibration Log

Model Star A329

Serial Number G09761

Manufacturer: Thermo Orion

Date Purchased 12-2017

Parameter: pH/ISE/Cond/DO

GRU Prop Tag# none

QTR: 4Q19 :used manufacture SOP for calibrations and FRP1218 SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|------------|----------------------------------------------|-------|
| Standard A | 100, ID# DB82101, Exp 12/31/19 | uS/cm |
| Standard B | 1413, ID# DB80701 Exp 1/31/20 | uS/cm |
| Standard C | 10,000, ID# 192501, expires 7/31/2021 | uS/cm |

QC DH92802 TV = 866 Range: 779 - 953

| Date | Time | STD A,B,C | STD Value | Instrument Response | Dev./ P or F | +/- 5% Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|----------|-------|-----------|-----------|---------------------|--------------|----------------------------|-----------------|------------------|
| 10/7/19 | 10:09 | A | 100 | 102.5 | P +2.5% | NO | cont | Km |
| 10/7/19 | 10:11 | B | 1413 | 1430 | P +1.2% | NO | cont | Km |
| 10/7/19 | 10:13 | C | 10,000 | 9961 | P -0.39% | NO | cont | Km |
| 10/10/19 | 14:15 | QC | 866 | 859.9 | Pass | NO | cont | Km |
| 10/21/19 | 17:28 | A | 100 | 101.6 | P +1.6% | NO | cont | KSB |
| 10/22/19 | 16:04 | B | 1413 | 1417 | P +0.28% | NO | cont | Km |
| 10/23/19 | 15:18 | B | 1413 | 1414 | P +0.07% | NO | cont | KSB |
| 10/24/19 | 14:08 | B | 1413 | 1409 | -0.28% P | NO | cont | Km |
| 10/25/19 | 12:29 | B | 1413 | 1414 | P +0.07% | NO | cont | Km |
| 10/30/19 | 0736 | B | 1413 | 1437 | P +1.7% | NO | cont | KSB |
| 10/30/19 | 1000 | B | 1413 | 1412 | P -0.07% | NO | cont | KSB |
| 11/26/19 | 1535 | B | 1413 | 1425 | P +0.85% | NO | cont | KSB |
| 11/26/19 | 1230 | B | 1413 | 1439 | P +1.8% | NO | cont | KSB |

DH92802
Exp 8/2021
Pass (B)

Instrument Calibration Log

Model 2100Q

Serial Number 14100C035914

Manufacturer: Hach

Date Purchased 11-2014

Parameter: Turbidity

GRU Prop Tag# none

QTR: 4Q19 :used Manufacture SOP for calibrations and FDER 160D SOP for verifications

| | Standard Concentration, ID#, Expiration Date | Unit |
|------------|----------------------------------------------|------|
| Standard A | 2° Gelex Std 5.75 | NTU |
| Standard B | 2° Gelex Std. 53.1 | NTU |
| Standard C | 2° Gelex Std. 498 | NTU |

Calibration verification Std. 0.1 NTU, ID# _____, exp. _____

de DH92804 TU=19.9 Range: 16.7-23.3

| Date | Time | STD A,B,C | STD Value | Instrument Response | Dev./ P or F | Calibrated (Yes/No) | Type (Int/Cont) | Sampler Initials |
|----------|-------|-----------|-----------|---------------------|--------------|---------------------|-----------------|------------------|
| 10-10-19 | 10:03 | D | 0.1 | 0.11 | 10% P | yes | Int | Km |
| 10-10-19 | 10:12 | A | 5.75 | 5.75 | P 0% | yes | Int | Km |
| 10-10-19 | 10:13 | B | 53.1 | 53.0 | P 0% | yes | Int | Km |
| 10-10-19 | 10:14 | C | 498 | 498 | P 0% | yes | Int | Km |
| 10-10-19 | 14:21 | QC | 19.9 | 18.6 | Pass | NO | cont | Km |
| 10-10-19 | 10:16 | A | 5.75 | 5.75 | P 0% | NO | cont | Km |
| 10-10-19 | 10:16 | B | 53.1 | 53.0 | P -0.1% | NO | cont | Km |
| 10-10-19 | 10:17 | C | 498 | 498 | P 0% | NO | cont | Km |
| 10-20-19 | 1735 | A | 5.75 | 5.76 | P +0.17% | No | cont | KSB |
| 10-22-19 | 10:05 | A | 5.75 | 5.80 | P +0.87% | NO | cont | Km |
| 10/23/19 | 1515 | B | 53.1 | 53.6 | P +0.94% | No | cont | KSB |
| 10/24/19 | 14:15 | A | 5.75 | 5.78 | P +0.52% | NO | cont | Km |
| 10/25/19 | 14:18 | C | 498 | 495 | P -0.60% | NO | cont | Km |
| 10/30/19 | 0740 | A | 5.75 | 5.82 | P +1.21% | No | cont | KSB |
| 10/30/19 | 0955 | A | 5.75 | 5.83 | P +1.21% | No | cont | KSB |
| 11/26/19 | 1521 | A | 5.75 | 5.75 | P 0% | No | cont | KSB |

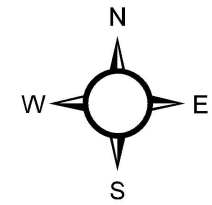
DH92804
PASS (S)

***Acceptance Criteria**
 0.1 to 10.0 NTU = +/- 10%
 11 to 40 NTU = +/- 8%
 41 to 100 NTU = +/- 6.5%
 >100 NTU = +/- 5%

Primary Standards
 10.1 10 NTU, ID# DI92701, exp. 12/31/20
 19.8 20 NTU, ID# DI92702, exp. 12/31/20
 98.4 100 NTU, ID# DI92703, exp. 12/31/20
 801 800 NTU, ID# DI92704, exp. 12/31/20

Attachment C
Potentiometric Contours and Site-Wide
Groundwater Flow Direction, January 2019
and July 2019

CCR Units 2019 Annual Groundwater Monitoring and Corrective Action Report



Legend

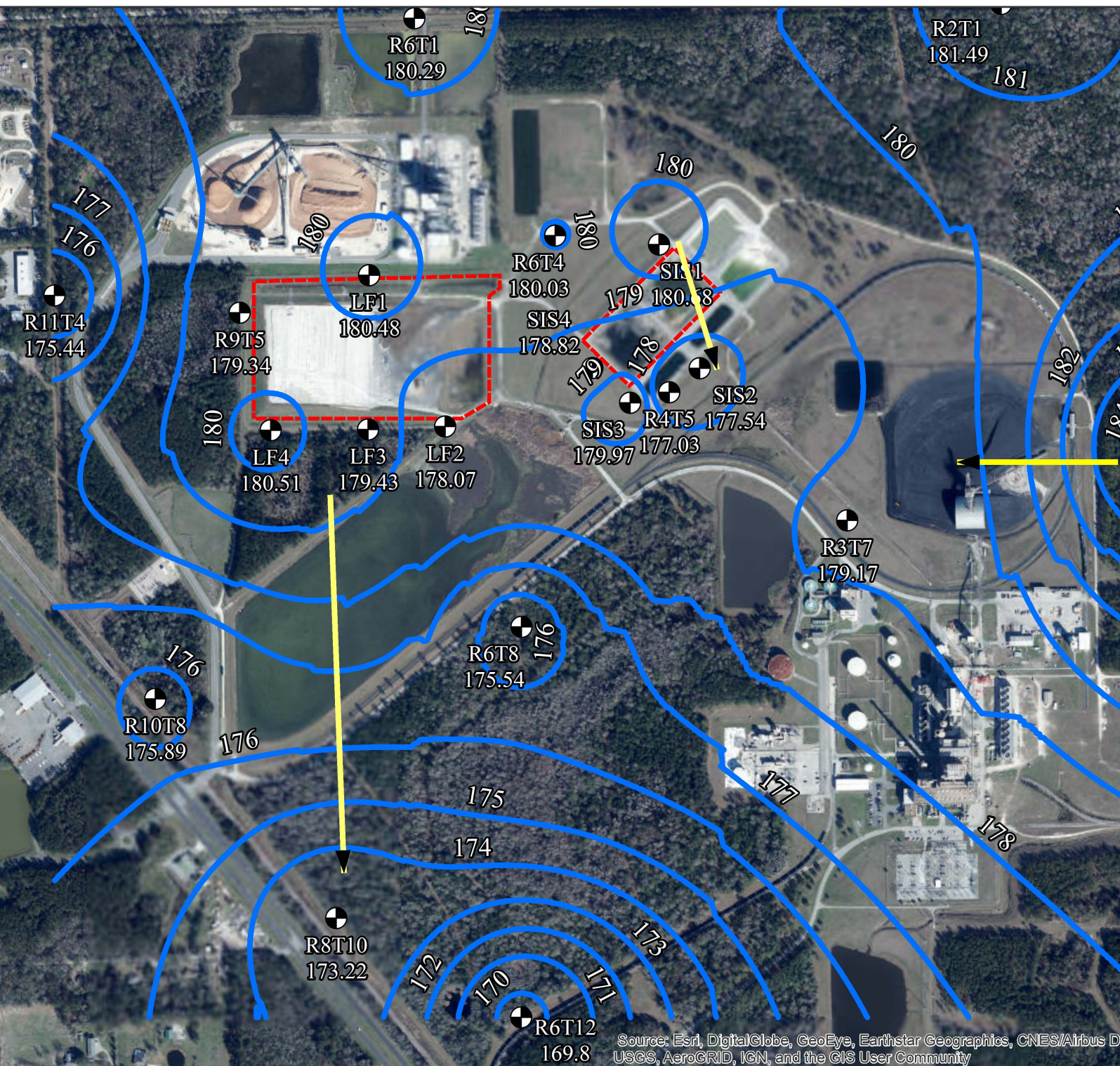
- January Wells
- Groundwater Contour
- Groundwater Direction

Approximate Groundwater Flow Direction January 14, 2019

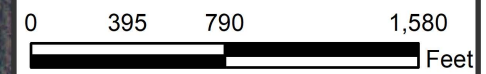
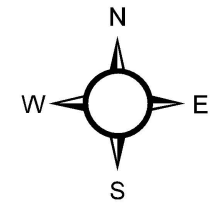
NOTES:

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 LAYER — THE CCR UNITS WERE DESIGNED TO BE HYDRAULICALLY ISOLATED FROM THE SURROUNDING SURFICIAL AQUIFER. THEREFORE, THE POTENTIOMETRIC SURFACES PRESENTED IN THESE DRAWINGS WERE USED TO ROUGHLY INFER THE GROUNDWATER FLOW DIRECTION OUTSIDE THE EXTENTS OF THE CCR UNITS.
2. 2014 AERIAL IMAGERY FROM FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION LAND BOUNDARY INFORMATION SYSTEM
3. GROUNDWATER ELEVATIONS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.
4. EXTENTS OF CCR UNITS ARE APPROXIMATE.

Drawn by: PO, JW



CCR Units 2019 Annual Groundwater Monitoring and Corrective Action Report



Legend

- July Wells
- Groundwater Contours
- Groundwater Flow Direction

Approximate Groundwater Flow Direction July 15, 2019

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 LAYER — THE CCR UNITS WERE DESIGNED TO BE HYDRAULICALLY ISOLATED FROM THE SURROUNDING SURFICIAL AQUIFER. THEREFORE, THE POTENTIOMETRIC SURFACES PRESENTED IN THESE DRAWINGS WERE USED TO ROUGHLY INFER THE GROUNDWATER FLOW DIRECTION OUTSIDE THE EXTENTS OF THE CCR UNITS.
2. 2014 AERIAL IMAGERY FROM FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION LAND BOUNDARY INFORMATION SYSTEM
3. GROUNDWATER ELEVATIONS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.
4. EXTENTS OF CCR UNITS ARE APPROXIMATE.

Drawn by: PO, JW

